UNDERSTANDING THE NATIONAL UNION OF METALWORKERS OF SOUTH AFRICA'S EVOLVING POLICIES ON THE ROLE OF RENEWABLE ENERGY IN SOUTH AFRICA'S MINERAL ENERGY COMPLEX

A Research Report submitted in partial fulfilment of the Degree of Master of Arts (Labour, Policy, and Globalisation) in the School of Social Sciences (Sociology),

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Abstract

The concept of the just transition is widely regarded as organised labour's response to the negative impact of climate change. It is used as a mechanism to reconcile the movement's mandate to provide workers with decent jobs and the need to protect the environment. NUMSA is an example of a union that, during 2011-12, responded to the impact of climate change by developing its own policies and directly challenging government's renewable energy policies. The union's vision for South Africa is a socially owned renewable energy sector made up of a mix of energy parastatals, cooperatives, municipal-owned entities, and other forms of community energy enterprises. South Africa is heavily reliant on coal for its electricity generation. The government, the private sector, civil society, and organised labour mostly agree that there is a need to transition away from coal to renewable energy.

Initially, the transition to renewable energy was framed as a choice between 'jobs and environment' and 'jobs versus environment'. NUMSA's vision of socially owned renewable energy displayed characteristics of active labour environmentalism that called for the transformative 'jobs and environment with just transition' despite its location in the fossil fuel sector.

However, a series of events and decisions by a top leadership that is viewed as authoritarian and unenthusiastic about eco-socialism, has resulted in NUMSA adopting strategies in recent years that are, at best, seen as reactive and narrowly protecting workers – even though they purport to support a just transition to renewable energy. At worst, the union has been accused of anti-environmentalism and protecting coal and electricity workers regardless of the impact on the environment. It was this apparent shift and criticism of NUMSA that necessitated an analysis of its opposition to the closure of coal fired power stations to make way for renewable energy independent power producers. The findings point to a union that relies on its pioneering decarbonization policies to shield itself from legitimate criticism from labour climate activists and progressive environmental groups of its actual practice.

Contents

List of Abbreviations

COP Conference of the Parties

COSATU Congress of South African Trade Unions

DMRE Department of Minerals and Energy

ICEM International Federation of Chemical, Energy, Mine and General Workers' Unions

ICFTU International Confederation of Free Trade Unions

ILO International Labour Organisation

IPP Independent Power Producers

ITF International Transport Workers Federation

LSO labour support organization

NUM National Union of Mineworkers

NUMSA National Union of Metalworkers of South Africa

OCAW Oil Chemical and Atomic Workers Union

REIPPP Renewable Energy Independent Power Producers Programme

SORE Socially Owned Renewable Energy

SAFTU South African Federation of Trade Unions

TUED Trade Unions for Energy Democracy

UN United Nations

UNFCCC United Nations Framework Convention on Climate Change

1. Introduction

Just transition, broadly and simply defined, is the principle that a healthy economy and a clean environment can and should co-exist. The concept of the 'just transition' is widely regarded as organised labour's response to the negative impact climate change is wreaking on the working class in general and, more specifically, workers in certain industries. Davies (2019) traces the concept of the 'just transition' back to the 1990s labour movement in Canada and the USA. The concept was used as a mechanism to reconcile the union movement's mandate to provide workers with decent jobs, and the need to protect the environment. In South Africa, the work on just transitions started during the collaboration of labour unions and civil society groups on issue-specific environmental justice campaigns in the 1980s and 1990s (Climate Initiative Funds,2020:19). In 2009, the Congress of South African Trade Unions (hereafter, COSATU) adopted resolutions that recognised climate change as one of the greatest threats to both the planet and people (COSATU, 2009).

South Africa is a part of Conference of the Parties (hereafter, COP) and signatory of the Paris Agreement of 2015. The Paris Agreement was signed by various member countries in recognition of the need for an effective and progressive response to the urgent threat of climate change based on the best available scientific knowledge.

As a member and signatory nation of both United Nations and International Labour Organisation's principles on climate change and just transition, South Africa is expected to fulfil its global commitments to the reduced use of fossil fuels while catering for sustainable socioeconomic national development. The government has endeavoured to do this by creating institutions like the Presidential Climate Change Commission to assist the president in charting the country's path to a just transition. The Ministry of Minerals and Energy has also embarked on projects to introduce independent power producers (hereafter, IPPs) into the national electricity grid since 2012 and facilitated the closure of coals mines and coal powered electricity generation plants. In 2023, the Ministry of Forestry, Fisheries, and the Environment published the Climate Change Bill for public comment. The Climate Change Bill defines just transition as 'a shift towards a low-carbon, climate-resilient economy and society and ecologically sustainable economies and societies which contribute toward the creation of decent work for all, social inclusion and the eradication of poverty' (Department of Forestry, Fisheries and Environment, 2022:5). This definition is in line with the globally adopted definition as first proposed by the ILO.

Purpose of Research

Organised labour has played an important role in the development of a vision for a just transition globally and it is the responsibility of national trade unions to ensure that their country's shift to a

greener economy is not at the expense of workers, communities, and local business. The National Union of Metalworkers of South Africa (hereafter, NUMSA) is an example of a union that has actively responded to the implications of climate change to workers by developing its own policies and directly challenged government for how it is transitioning away from coal as a source of electricity generation in the country. At its 2012 National Congress, as part of its broader policies on climate change and energy, NUMSA adopted resolutions that sought to connect '*Climate Change and Class Struggle*' and campaign for *'Building a Socially Owned Renewable Energy Sector in SA*'. These resolutions were application of COSATU's principles to guide the federation and its affiliates in their engagements on climate change. On building a renewable energy sector for South Africa, NUMSA resolved that it should fight for a socially owned renewable energy (hereafter, SORE) sector made up of a mix of energy parastatals, cooperatives, municipal-owned entities, and other forms of community energy enterprises. Furthermore, NUMSA would put the question of social ownership and control of energy resources at the centre of campaign for a just transition.

Literature on NUMSA and climate change is rich in describing and complimentary of the union for their novel policies on the just transition in the early 2010s (e.g., Satgar,2015; Sweeney, 2012). However, recent literature has started to focus more on NUMSA's apparent sidelining of its support for a transition low-carbon economy in South Africa (e.g., Sikwebu et al, 2021; Pillay, 2021). The purpose of this research is to understand NUMSA's initial and continued opposition to the introduction of independent power producers (hereafter, IPPs) as an additional source of energy to meet the country's electricity needs. This question, or interest in NUMSA's position, is particularly salient in the context of the country's energy crisis – colloquially referred to as loadshedding – and mainstreaming of the concept of the just transition by government and big business.

This assessment of NUMSA's position on the fate of coal mines in South Africa is done under the acknowledgement that the global campaign for just transition is rooted in North American labour's version of environmental justice in the 1980s and the fact that the concept of just transition has gained momentum in climate conversations as an innovative labour-friendly plan for transforming the productive system (energy, manufacturing, transport, and related infrastructures) toward a zero-emissions target in the past decade (Velicu and Barca, 2020:263). The harmful impact of fossil fuels on climate are less in dispute and the world's focus is on reducing and reversing its dependence on fossil fuels. Furthermore, global, and national transitions to greener economies are bound to affect various stakeholders differently, particularly those in the fossil fuels and industries. In South Africa the transition to greener sources of energy has focused on coal mines and the country's overreliance on coal to produce electricity through a sole provider, the parastatal ESKOM.

NUMSA was seen as acting on behalf of the more vulnerable stakeholders in the coal and electricity value chains, mainly workers and the working class. For example, Sikwebu et al (2021:68-70) have highlighted how the restructuring South Africa's coal-dependent electricity to meet government's commitments to climate change mitigation and introduction of renewable energy sources has been protracted and characterised by intense contestation from as early as 2012 when NUMSA criticised government's proposed Renewable Energy Independent Power Producers Procurement Programme (hereafter, REIPPPP) as being private sector driven, particularly foreign multinationals. This development has resulted in the concept of carbon lock-in being touted as a useful explainer of the trade unions' efforts to block the diffusion to cleaner energy resources as suggested by Sikwebu et al (2021). In other words, there are sufficient reasons to question if NUMSA has abandoned the founding principles of a just transition for the working class and the environment in favour of the narrow interest of workers coal and electricity value chain. The purpose of this study is to understand if NUMSA's current opposition to IPPs is in earnest struggle for a true just transition or if it is displaying the characteristics of a trade union that is carbon locked?

Rationale

The study is motivated by the need to foreground the role of organised labour in making sure that the transition away from fossil fuels is just for workers and the working class in South Africa and the world. Sharing the view that labour relations play an important role in the future of global climate politics (Velicu et al, 2020), it seeks to contribute to the necessary discussions on *how can the transition be just*? It further relies on environmental justice scholarship and movements' demonstrations that working-class people, generally all low-income communities, are among the most affected by climate change, from toxicity to precariousness and poor living conditions (Velicu et al, 2020:266). Second, because the post-carbon transition is an opportunity to make working-class lives better, mostly by creating new and better jobs, but also by improving adaptation capacities and stopping environmental damage that affects workers in dirty jobs as well as frontline communities (Velicu et al, 2020:266). Velicu et al (2020) posited it that, because of the above factors, workers and poorer communities have the potential to become climate allies, so long as investments are made in their future livelihoods and well-being. However, as Mulaisi and Cock (2022:317) observed, recent years have seen the labour movement retread into defensive, reactive position, focused on protecting jobs in the energy sector without any visible campaigns for frontline communities. In this case, the subject matter is NUMSA's opposition to the expansion of the role of IPPs in the production of renewable energy at the perceived expense of workers in the country's coal and electricity value chain. How is this opposition consistent, or contradictory, with organised labour's vision for a just transition?

Argument

Documentary analysis and views of some interviewees in this study reveal that NUMSA's call for socially owned renewable energy and its opposition to the introduction of IPPs can readily be characterised as ideological. However, I argue that the concept of carbon lock-in, while applicable to a certain extent, does not sufficiently explain NUMSA's current position on IPPs. Instead, a Power Resource Approach (hereafter, PRA) is more suitable for a more holistic critique of the union's strategies around renewable energy. Furthermore, it seems that NUMSA has not abandoned its commitment the transition to cleaner sources of energy. It argues that it is rather demanding that the country makes the transition away from coal in a just manner in line with the Paris Agreement and ILO principles. There is also similar opposition from other key stakeholders to the way that the South African government is going about the shift away from coal as a primary source of electricity generation.

Research Question

Main Question: What explains NUMSA's current opposition to the inclusion of IPPs as a source of cleaner, safer, and affordable energy?

Sub-Questions:

1. What informed NUMSA's 2012 socially owned renewable energy (SORE) policies?

2. What motivated the union to oppose the introduction of independent power producers (IPP) as one of the country's sources of electricity from 2018?

3. To what extent does the notion of a carbon lock-in explain the apparent reluctance of unions to promote a just transition to renewable energy?

Structure of Report

The literature in Chapter 2 provides background and historical context of the significant role organised labour played in the development of the globally accepted definition of just transition, how the South African government and organised labour are responding to climate change. In Chapter 3, I outline the research methodologies including documentary analysis and the interview process to collect primary data, data analysis method, and I discuss how my positionality influenced the research.

Chapter 4 is a documentary analysis of NUMSA's policies, statements, and submissions around issues of climate change policies, electricity, and renewable energy between 2009 and 2019. The findings from the interviews are discussed in Chapter 5 analysing the state of NUMSA's SORE campaign by 2023. Chapters 4 and 5 explore how NUMSA's ideological opposition to IPPs are part of its campaign for SORE and just transition away from coal as well as how realities on the ground shape its current

strategy for renewable energy. The findings also show that the renewable energy space is highly contentious with little consensus between and within key stakeholders as to what a path to a just transition looks like. In the Conclusion I summarise my key arguments and suggest areas for future research.

2. Literature Review

2.1 Introduction

This research is a focused contribution to the on-going debates about the role of trade unions when it comes to issues of climate change and a just transition to a low carbon future. While the literature review broadly looks at the history of trade unions and their role in climate change issues, the core focus will be exploring the concept of a just transition and the roles of trade unions in the South African context. Today it is widely accepted that there is a need for a just transition to a low carbon economy due to toxic global emissions resulting in more frequent extreme weather events like heat waves, droughts, and floods.

Workers and organised labour are critical stakeholders in issues of climate change and their influence on how the just transition occurs is considered with a focus on NUMSA and its position on IPPs. This also entails discussions on what has been identified as existing and potential barriers to a just transition to a low-carbon economy in South Africa. One critical factor has been identified, namely the concept of 'carbon lock-in'. This is the conceptual framework under which we try to answer the main question and/or understand NUMSA's current position vis-à-vis its own policies on IPPs.

2.2 The Just Transition and Trade unions

Today the term just transition is used widely by nearly all stakeholders in national and global discourse on climate change and the transition to cleaner sources of energy. In 2015, the Paris Agreement spoke of: *"*Taking into account the imperatives of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined priorities*"* (UN, 2015). Some of the common understandings of just transition include the assertion that, at its core, it attempts to elevate concerns about social justice in the global transition to sustainable economies and societies (Patel, 2021:4). The country's Integrated Resource Plan (2019:15) similarly holds the position that the timing of the transition to a low carbon economy must be in a manner that is socially just and sensitive to the potential impacts on jobs and local economies.

2.2.1. Origins of the Concept

a. Tony Mazzocchi

While just transition has become a catch-all phrase, it is paramount, particularly from an organised labour's perspective, to go back and retrace the origins and history of the concept. According to E3G (2018 cited in Pinker, 2020:8) the concept of just transition was developed by North American trade unions to provide a framework for discussions on the kinds of social and economic interventions necessary to secure workers' livelihoods in the shift from high-carbon to low-carbon, climate-

resilient economies. Pinker (2020:8) found that it is widely accepted that it was Tony Mazzocchi who coined the phrase 'just transition.'

Tony Mazzochi was a U.S. labour and environmental activist through his membership and various leadership positions (including President in the 1980s) in the U.S. Oil Chemical and Atomic Workers Union (OCAW; now part of the United Steelworkers) and is best known for his pioneering work around occupational safety and health (Treat, 2021; Dudzic, 2007). Mazzochi pointed out that toxic exposures did not stop at the plant fence line and that the exposures suffered by workers were usually many times greater than those suffered in the community (Dudzic, 2007). Thus, he understood that the growing environmental movement was a natural ally and insisted that unionists learn to take this alliance seriously (Dudzic, 2007). Mazzochi told environmentalists that their programs were doomed if they did not respond to the legitimate job concerns of those working in polluting industries (Dudzic, 2007).

The idea of a just transition started to spread within the labour movement in the late twentieth century partly in response to the environmental movement (Eisenberg, 2019:285). The original version was called Superfund for Workers, a converse to the U.S. government's proposed superfund to finance a program to clean up toxic wastes in the environment (Eisenberg, 2019). While the government and environmental movements proposed superfund aimed at cleaning up the environment, Mazzochi argued that it was workers who had been exposed to toxic chemicals throughout their careers thus they should be entitled to minimum incomes and education benefits to transition away from their hazardous jobs (Eisenberg, 2019).

"In the 1970s and through his death in the early 2000s, Mazzocchi and his associates were involved in creating powerful labour-environmental alliances that pursued the just transition campaign with the hope of addressing the jobs-versus-environment conundrum" (Eisenberg, 2019:286). Eisenberg (2019) sums up Mazzocchi's advocacy as the founding shape of the labour-driven usage, or definition, of just transition. This is the idea that workers and communities whose livelihoods will be lost because of an intentional shift away from hazardous activity deserve some sort of support through public policy (Eisenberg, 2019:286). For Mazzocchi just transition was not merely the pursuit of safety net provisions, but also as a means of raising deeper questions about societal priorities and principles, to help workers imagine a different future (Treat, 2021).

b. Oil Chemical and Atomic Workers Union (OCAW)

According to Morena et al (2018:6) as early as 1973, Mazzocchi successfully enlisted support from environmentalists to help OCAW wage what he presented as 'the first environmental strike' over health and safety issues at Shell refineries across four US states. OCAW was joined by sympathisers

and its' then Canadian branch which quickly adopted the strategy and the two nations unionists collaborated closely making the original scale of 'just transition' activism binational (Stevis, 2021; Morena et al, 2018). What was particularly unique about these campaigns and alliances was that Mazzocchi and his collaborators acknowledged that the industries they worked in were causing environmental and health problems (Morena et al, 2018).

The 1960s and 1970s in the U.S. were marked by a significant rise in occupational safety and health concerns that would infuse the environmentalist movement, allowing Mazzocchi to play a significant role in the passing of the Occupational Safety and Health Act of 1970. OCAW became the first trade union to develop an explicit just transition strategy in the late 1980s focused on chemicals and toxins and related occupational health and safety (Stevis, 2021). Industries that were covered by OCAW were repeatedly targeted by campaigns and controversies for their adverse effects on the environment and local communities (Morena et al, 2018:7). The idea of a just transition further took root in OCAW when workers faced displacement due to environmental policies that meant a New Jersey chemical faced closure in the mid-1980s (Treat, 2021; Xaba et al, 2022). The OCAW leadership had to negotiate support for workers in this chemical facility (Treat, 2021; Xaba et al, 2022). Led by then President Mazzocchi, the union, in addition to income protection for the plant's 650 workers, demanded that government fund the retraining for those to be displaced by it closure (Treat, 2021).

American and Canadian unions went on to collaborate with unionists from a few other countries and moved to place just transition on national and global agendas (Stevis, 2021). The Communications, Energy, and Paperworkers Union of Canada (CEP) adopted a Just Transition resolution in 1996, followed by OCAW in 1997 and the Canadian Labour Congress in 1999 (Morena et al, 2018:7). The 1990s also saw the launch of the Just Transition Alliance (JTA), with a purpose to connect the trade union movement with community-focused environmental justice groups in 1997 (Morena et al, 2018:7). The launch of this alliance marked an important milestone towards the development of a comprehensive, holistic and multistakeholder strategy (Morena et al, 2018:7). The JTA became involved in several local campaigns that sought to bring together workers and frontline communities to enhance unionization and persuade both that they were subject to the same injustices (Morena et al, 2018:7).

2.2.2 The Role of Organised Labour in the Globalisation of the "Just Transition"

A. International Trade Union Confederation (ITUC)

From the 1990s, unions at the international level began to adopt and use the term just transition in the context of UN meetings around the Commission on Sustainable Development (or CSD, formed after the 1992 Rio Conference or Earth Summit) and the annual climate change meetings of the UN's Framework Convention on Climate Change (i.e., UNFCCC) Conference of the Parties (or COP) that

began in 1995 (Sweeney et al, 2018:7; Smith, 2017:3). For example, in November 1999, the International Federation of Chemical, Energy, Mine and General Workers' Unions (ICEM) adopted a Just Transition resolution at its second world meeting. Similarly, in the late 1990s and early 2000s, the International Confederation of Free Trade Unions (ICFTU), ITUC's predecessor, included Just Transition language in their OSH and environmental activities (Morena et al, 2018:8; Ward, 2018). In 1997, at the COP3 Kyoto climate conference, ICTFU's position included the declaration that "workers will demand an equitable distribution of costs through just transition policies that include measures for equitable recovery of the economic and social costs of climate change programmes" (ICTFU, 1997 cited in Morena et al, 2018).

In 2006, the ICTFU merged with the World Confederation of Labour giving birth to the ITUC (Morena et al, 2018:8). "Since its launch in 2006, the International Trade Union Confederation (ITUC) has taken the lead in framing global labour's approach to climate protection and environmental issues more broadly" (Sweeney et al, 2018:7; Morena et al, 2018:8). June 2010, at its second World Congress, the ITUC adopted an important resolution on "combating climate change through sustainable development and just transition" and reasserted the need for a Just Transition at its third World Congress in Berlin in 2014 (Sweeney et al, 2018:7).

The ITUC (2014) described a just transition as a tool that the trade union movement shared with the international community with the aim of smoothing the shift towards a more sustainable society. This tool, according to ITUC (2014), provided hope for the capacity of a green economy to sustain decent jobs and livelihoods for all. According to Eisenberg (2019:289), just transitions advocates highlight the need to engage affected workers and their representative trade unions in institutionalised formal consultations with relevant stakeholders including governments, employers, and communities at national, regional, and sectoral levels.

The inclusion of just transition in international regimes represented a victory for organised labour as international unions had campaigned for the inclusion of the phrase in organisations such as the UNFCCC and Sustainable Development Goals (Smith, 2017). In the negotiations leading up to the Paris Agreement, unions and their allies worked hard to get strong text on just transition in the Agreement, inter alia: the goals of decent work for all (Goal 8), clean energy for all (Goal 7), climate protection (Goal 13) and poverty eradication (Goal 1) (Smith, 2017, p:3).

Hampton (2018:471-472) provides a succinct case and explanation of the important role trade unions can play in mitigating the negative impact climate change, stating: *"*The power, leverage, and authority of trade unions, together with the catalytic role of their elected representatives at international, national, local, and workplace scales constitute a unique force with great potential to

enhance climate change prevention and adaptation". For Hampton (2018) trade unions are particularly important in the discourse, because it is not general human activities that cause global increases in greenhouse gas concentrations. Instead, he points out that there is a need to focus on global industrial production as the cause of global warming greenhouse gas emissions (Hampton, 2018).

B. Paris Agreement, 2015

Since the 1970s and 1980s, trade unions have engaged with climate policies at various levels and international union organizations have sponsored the just transition concept across the world (Thomas, 2021:2). This has seen the concept being taken up by environmental justice groups and Indigenous rights groups, as well as businesses and national governments, and now occupies a prominent place in global climate politics (Thomas, 2021:2). "One of the most visible successes of global labour over its history has been the placement of just transition at the center of global climate politics through its inclusion in the Paris Agreement of 2015" (Stevis, 2021:57).

On the 12th of December 2015, under the auspices of the United Nations, various member countries met in Paris for the 27th Congress of Parties. This meeting was held by Parties to the UNFCC in "recognition of the need for an effective and progressive response to the urgent threat of climate change on the basis of the best available scientific knowledge" (UN, 2015). The agreement that was signed on the 12th of December 2015 has been widely popularised and is known across the world as COP27 or the Paris Agreement.

For the first time the phrase 'just transition' appeared in official international documents outside of the organised international labour movement. The Paris Agreement stated: "Taking into account the imperatives of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined priorities" (UN, 2015). In their endeavours to address climate change, parties to the Paris Agreement agreed that they should: "respect, promote and consider their respective obligations on human rights, rights to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equity, empowerment of women, and intergenerational equity" (UN, 2015). Stevis (2021:57) described this development as a turning point in the development of global labour environmentalism because it mainstreamed one of the most initiative-taking strategies developed by labour.

2.3. Decent Work and the Just Transition

Following the signing of the Paris Agreement, the ILO was given the task of providing a definitive model for just transition. In 2016, following tripartite multilateral negotiation between unions, employers' organizations and governments, the ILO published the "Guidelines for a just transition towards environmentally sustainable economies and societies for all". In providing a negotiated tripartite multilateral policy framework, the ILO guidelines (2016, p:4) envisioned that transitions to environmentally and socially sustainable economies could become strong drivers of job creation, job upgrading, social justice and poverty eradication. Furthermore, the greening of all enterprises and jobs by introducing more energy and resource efficient practices, avoiding pollution, and managing natural resources sustainably leads to innovation, enhances resilience, and generates savings which drive new investment and employment (ILO, 2016, p:4).

The ILO (2016, p:6) identified nine key policy areas to address environmental, economic, and social sustainability. All listed policy areas are relevant and have direct and indirect impact on the gains and losses of workers and vulnerable members of society. For purposes of this study, the focus is on the policy recommendations most salient to decent work agenda and protecting livelihoods, specifically: *IV. Skills development; V. Occupational safety and health; VI. Social protection; VII. Active labour market policies; and IX. Social dialogue and tripartism* (ILO, 2016, p:6).

International labour movements like the ITUC made a list of demands and recommendations regarding what a just transition should be. Key demands, as articulated by ITUC, include the respect of the contribution that workers in fossil fuel industries have made to today's prosperity and ensuring vital investment in jobs and decent work that are necessary for adaptation and mitigation (Smith, 2017, p:4-5). International labour recommends adaptation and mitigation measures such as formalising the jobs in rescue, rebuilding and resilience associated with climate disasters (Smith, 2017, p:4-5). In the medium to long-term, workers must be involved in the sectoral plans for the development of clean mega cities and the guarantee of essential social protection and human rights (Smith, 2017, p:4-5). Most significantly, the just transition must b*e* based on social dialogue with all relevant parties, collective bargaining with workers and their unions and the monitoring of agreements which are public and legally enforceable (Smith, 2017, p:4-5*).*

The above policy recommendations of the ILO guidelines and the demands of the ITUC - as symbolic and representative of the global trade union movements - are in recognition of the fact that work provides workers with income, dignity, and the means to survive (Satgar, 2017, p:268). Thus, as Satgar (2017, p:268) succinctly summarised, addressing climate change in a way that ensures that workers, the poor and the excluded do not pay the costs of ecological restructuring of economies, is

crucial. Hence, the notion of justice must be brought to the fore because it will be the most vulnerable stakeholders in society that will be disproportionately affected by climate change (Xaba et al, 2022).

2.3 National Policies for The Just Transition in South Africa

2.3.1. Introduction

Nqobile Xaba and Saliem Fakir (2022, p:1) share a view that a transition to a low carbon economy is fundamentally an energy transition since three-quarters of global emissions are from the energy sector. In the context of South Africa, this is especially true due to the role the country's fossil fuel industry- or Mineral Energy Complex- play in its economic growth and electricity production (Xaba and Fakir, 2022, p:1). Arguably, for South Africa, a just transition to a low carbon economy will have to address the imperatives for social and ecological justice and equity while reducing its reliance on carbon-intensive industries (Xaba et al, 2022, p:2). According to Xaba et al (2022, p:3) in its endeavours for a just transition, the country must address two fundamental questions which are: 'how can South Africa transition to a low carbon society while providing economic opportunities for the most vulnerable'; and 'how can key stakeholders ensure a just transition to a low carbon economy in South Africa?'

The answer to these two questions can be found in looking the country's position on the Paris Agreement, the impact of climate change, government policy, and the position of various social partners. In this case, the focus is on trade unions - specifically NUMSA - as key stakeholders in the country's energy and just transition policies.

2.3.2 Paris Agreement Signatory

South Africa is a part of COP and signatory of the Paris Agreement. From their inception and relatively wide acceptance, both the Paris Agreement/COP27 and the ILO's *"Guidelines for a just transition towards environmentally sustainable economies and societies for all"* embraced certain core ideas and recognised a variety of facts regarding climate change. The 2015 Paris Agreement recognized the specific needs and special circumstances of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change. Furthermore, the agreement took full account of the specific needs and special situations of least developed countries regarding the funding and transfer of technology to aid their mitigation and adaption (Paris Agreement, 2015).

Similarly, the ILO (2016) spoke of a shared common global purpose that embraces that there will be different approaches, models, and tools available to each country in accordance with their national circumstances and priorities to achieve economic, social, and environmentally sustainable

development. Thus, while South Africa is a party and signatory to the UN's Paris Agreement and ILO conventions, its climate change adaptation policies are expected to be developed around the country's specific threats from climate change and its developmental goals. The government can duly be credited for making efforts to respond to the threats posed by climate change to the country by working on climate specific legislation and creating a central body to develop a consultative active just transition policy. For brevity's sake I refer to the Climate Change Bill by the Ministry of Forestry, Fisheries, and the Environment as well as the Presidential Climate Commission's (the PCC) Just Transition Framework to illustrate government's endeavours to meet the global obligations and respond to national threats and opportunities.

A. The Climate Change Bill, 2022- Department of Forests, Fisheries, and the Environment

The 2022 Climate Change Bill defines just transition as 'a shift towards a low-carbon, climate-resilient economy and society and ecologically sustainable economies and societies which contribute toward the creation of decent work for all, social inclusion and the eradication of poverty' (Department of Forests, Fisheries and the Environment, 2022:5).The objectives of the act, once it becomes law, are to provide for a coordinated and integrated response by the economy and society to climate change and its impacts in accordance with the principles of cooperative governance. The act would also serve to ensure a just transition towards a low carbon economy and society considering national circumstances and give effect to the country's international commitments and obligations in relation to climate change.

When it comes to its application and interpretation, the act expects those that would apply the climate change laws be guided by the principles such as 'contributing to a just transition towards low-carbon, climate-resilient and ecologically sustainable economies and societies which contribute to the creation of decent work for all, social inclusion and the eradication of poverty'. Another mentionable principle of the bill is that there is a "need for decision-making to consider the special needs and circumstance of localities and people that are particularly vulnerable to the adverse effects of climate change, including vulnerable workers and groups such as women, especially poor and rural women, children, especially infants and child headed families, the aged, the poor, the sick and the physically challenged" (2022:7). These are just two of the twelve principles in section 3 of the bill.

B. A Framework for A Just Transition for South Africa, PCC

The PCC is a multi-stakeholder body established by the President of South Africa to advise the president on the country's climate change response and support a just transition to a low-carbon climate-resilient economy and society. As part of its mandate, it facilitates dialogue between social partners on defining the type of economy and society the country wants to achieve, and detailing

pathways for how to get there. In 2022, the PCC published the 'A Framework for A Just Transition'. The PCC (2022) describes this framework as building on research, policies, and consultations on the just transition in South Africa, as well as international best practice guidelines. It gives credit to the years of research work done by government, business, civil society, academia, and labour unions noting that: "The framework incorporates learnings from prior consultation processes on the just transition, including those facilitated by the National Planning Commission (NPC 2019) and the National Economic Development and Labour Council (NEDLAC 2020)?" (PCC, 2022:3).

The framework puts forward an all-embracing definition of just transition borne of the above multi-stakeholder research and consultations. According to the framework, a just transition for South Africa aims to achieve a quality life for all in the context of increasing the ability to adapt to the adverse impacts of climate, fostering climate resilience, and reaching net-zero greenhouse gas emissions by 2050, in line with best available science (PCC, 2022:7*).* Furthermore, just transition contributes to the goals of decent work for all, social inclusion, and the eradication of poverty; and puts people at the centre of decision making, especially those most impacted, the poor, women, people with disabilities, and the youth empowering and equipping them for new opportunities of the future. Finally, it envisioned that it would build the resilience of the economy and people through affordable, decentralised, diversely owned renewable energy systems; conservation of natural resources; equitable access of water resources; an environment that is not harmful to one's health and well-being; and sustainable, equitable, inclusive land use for all, especially for the most vulnerable (PCC, 2022:7).

Both the bill and the framework show government's commitment to global commitments as per Paris Agreement and fully embraces the core principles of the definition of just transition that was developed by the ILO. The following sections will show that the above characterisation of a just transition for South Africa is broadly shared by civil society, academia, and organised labour. However, while on paper the government has fully embraced the just transition, it has been caught betwixt and between shifting the country away from coal as a source of electricity due internal opposition from certain ministers within cabinet. **Chapter 5** provides some examples of how the Minister of Minerals and Energy and the Minister of Electricity have criticized their own governments renewable energy policies for implementing an unjust transition.

2.3.3 A Just Transition for South Africa

According to the various academics, key factors in the country's path to a just transition and associated policies include job creation and skills development; adaptation to advanced technologies and renewable energy; vulnerable communities and climate changes; spatial planning; and high carbon emissions (Xaba et al, 2022, p4-5). Furthermore, being the world's most unequal society, the

transition to a low carbon economy in South Africa must entail addressing the socio-economic challenges the country faces, including inequality, unemployment, and poverty (Xaba et al, 2022, p:5). Thus, the just transition's approach must be people-centred in all policies and strategies because the most important stakeholders are, arguably, those that will be disproportionately affected by climate change (Xaba et al, 2022). For example, communities that will be affected by the phasing out of coal would have to be part of solutions through bona fide consultation processes with government and business (Xaba et al, 2022).

Communities that surround coal mines should be seen as particularly key stakeholders due to South Africa's mineral energy complex's heavy reliance on coal which make the country's response to climate change and how it affects development and strategies unique (Ndzimande and Khambule, 2022). Ndzimande and Khambule (2022, p:46) argue that, due to this uniqueness, the country's responses and commitments to a low carbon future should be cognisant of the country's interconnected environmental, social, and economic crises. Similarly, Mohamed and Montmasson-Clair (2022, p:61) are of the view that, in the South African context, a just transition requires a recognition of the need for reform and transformation to address the roots of climate change, inequality and ecological crises. This entails restorative justice which considers damages against individuals, communities, and the environment, with the goal of rectifying or ameliorating historical damages (Mohamed and Montmasson-Clair, 2022, p:61). A province like Mpumalanga in South Africa is a perfect example of frontline communities that have suffered from the negative consequences of centuries of resource extraction and industrial pollution from coal mines (Mohamed et al, 2022).

In short, a just transition in South Africa must address the needs of the most vulnerable including affected workers, urban and rural poor, women, and youth to ensure that the benefits of the necessary transitions are accessible to everyone, and the risks are equitably borne (Mohamed et al, 2022). This is achievable through applying an ideal mix of policies that take into consideration the country's available policy tools inter alia, industrial, social protection, skills, and labour market policies salient to different sectors, industries, and locations according to how they are impacted by climate change and transitions to low carbon economies (Mohamed et al, 2022, p:79). This, as argued by Mulaisi and Cock (2022, p:314), requires that the voices of the most affected, namely coal workers and people that live and make livelihoods in mining-affected communities, are heard in a democratised process.

2.4 South African trade unions responses to Climate Change

2.4.1 COSATU

The country's leading trade union federation, COSATU (2021:5) defines the just transition as a concept that aims to address how a transition to a low-carbon and climate-resilient economy can occur in a manner that is fair, just, and inclusive, and places workers and communities at its centre. Practically, for COSATU (2021), a just transition means the introduction of changes that do not disadvantage the working class worldwide and in developing countries. Furthermore, industrialised countries would pay for the damage their development has done to the earth's atmosphere (COSATU, 2021). Fundamentally, according to COSATU's Policy Framework on Climate Change, a just transition provides the opportunity for deeper transformation that includes the redistribution of power and resources towards a more just and equitable social order.

South African trade unions became more active on climate change issues in the buildup and aftermath of the country hosting the 17th COP Conference in November 2011 in Durban. COSATU duly led the way with its 2009 Congress resolution on climate change and its implications for workers. COSATU established two committees in 2010 consisting of representatives from all affiliates and from key environmental organisations. These structures conducted educational workshops with many affiliates, promoted shared research into coal mining, chemicals, and poultry farming with the National Union of Mineworkers (i.e., NUM) and the Food and Allied Workers Union (i.e., FAWU), as well as collaboration with key environmental justice organisations such as Groundwork and the SDCEA. This collaboration also produced a Climate Change Policy Framework (COSATU, 2012), which stressed that capitalist accumulation has been the underlying cause of excessive greenhouse gas emissions, leading to global warming and climate change. Strategically, this policy framework provided a basis on which the labour movement could mobilise different forms of power to address unemployment, poverty, and inequality as well as climate change (Mulaisi et al, 2022, p:314).

More recently, in its 'Just Transition: Blueprint for Workers 2022', COSATU (2022, p:5) reiterates that the transition to a low-carbon economy cannot take place without workers and people at its centre, as they are likely to be most affected by the transition and the impacts of climate change. Furthermore, it laments that, despite rhetoric around a just transition to a low-carbon and climate-resilient economy, the unfortunate reality is that the planning and implementation of a just transition in South Africa has been slow (COSATU, 2022, p:5). Ideally, according to COSATU (2022, p:5) accelerating a just transition that centres the needs of workers requires that trade unions have the tools to negotiate for worker demands within bargaining and policy structures. Despite this

criticism of government, COSATU and its affiliates have not taken their own policies down to their members to create campaigns in alliance with environmental groups around the just transition.

2.4.2 Defensive and Transformative Approaches to Climate Change

Without a doubt, energy transitions have created major challenges to union power in carbon-intensive economies as well as opportunities for the renewal of union power across the world (Kalt, 2022). Hence Kalt (2022:499) argued that that unions are neither natural opponents nor supporters of green transitions but instead engage strategically with energy transitions. "Unions' strategic choices to pursue oppositional, reactive, affirmative or transformative transition strategies is guided by an imperative to maintain or expand their power resources" (Kalt, 2022:499). There were elements of both the defensive and the transformative approaches to a just transition in the within COSATU affiliates when it came to the policy on climate change.

COSATU's 2009 10th Congress Resolutions had declared that a just transition towards a low carbon and climate-resilient society was required. While this policy statement was endorsed by all affiliates at the time, strong differences emerged between the NUM and NUMSA- before it was expelled from COSATU (Cock, 2012). Two broad approaches to the notion of a just transition exist within the global labour movement: the minimalist position which emphasises shallow, reformist change with green jobs, social protection, retraining, and consultation were identified by Cock (2012). The emphasis is defensive and shows a preoccupation with protecting the interests of vulnerable workers (Cock, 2012). An alternative notion viewed the climate crisis as a catalysing force for massive transformative change, with totally different forms of producing and consuming, perhaps even moving towards socialism, but a new kind of socialism which is democratic, ethical, and ecological (Cock, 2012).

Similarly, two broad approaches to the notion of a just transition also emerged out of COSATU's congress resolution/s and subsequent policy development and campaigns. The first adopts a framework of ecological modernization and emphasizes reformist change with green jobs, social protection, retraining and consultation, and a preoccupation to protect the interests of the most vulnerable workers. For example, Molaisi et al (2022, p:317) point out that the NUM has been active in defending coal by supporting the expansion of coal mining, protesting job losses from mine closures, and promoting 'cleaner coal' technologies such as carbon capture and storage.

The second and alternative position views the climate crisis as a catalysing force for transformative change towards socialism (Räthzel et al, 2018:507). According to Räthzel et al (2018:507) NUMSA initially supported this latter vision for a time as it argued for a socially owned renewable energy sector subject to democratic control, where the rights of workers are respected. NUMSA emerged as the

most invested and innovative of COSATU affiliates when it came to issues of the impact of climate change on workers and the working class particularly on issues of the production and ownership of energy sources, namely, renewable energy. However, as the following section illustrates, NUMSA's position on energy transition issues, particularly around coal, has since seemingly shifted to echo that of the NUM. That these initially divergent union positions end up converging is explainable by NUMSA's strategic choices based on an imperative to maintain or expand its power resources with ESKOM (Kalt, 2022).

2.5 NUMSA's Position on the Introduction Renewable Energy

In 2012 NUMSA made thirteen resolutions including that there was a need to link its struggles around climate change with global anti-capitalist struggles to avoid the just transition being another capitalist concept. For NUMSA, the path to a low carbon economy had to be based in worker-controlled, democratic social ownership of key means of production and means of subsistence. Included in these resolutions were the commitments to embark on ongoing education on a socially owned renewable energy sector that develops a rigorous critique of existing development path in the renewable energy sector. Furthermore, NUMSA would build and strengthen relations with organisations and institutions in countries where there are examples of different forms of social ownership within the renewable energy sector, or examples of the conflicts generated by capitalist renewable energy development.

It is arguably such foresight and willingness to learn that led to NUMSA being seen as a leading union on matters of climate change. For example, Satgar (2015) described it as having one of the most developed trade union responses to climate change in South Africa and in the African context more broadly. This response sought to ensure that the needs of workers and communities would be met while attempting to address the challenges of climate change according to Satgar. Similarly, Pillay (2021:92) found NUMSA's focus on climate change, alternative energy, and green jobs since 2011 to be path-breaking despite its lack of attention by mainstream media.

2.6 Opposing Green Capitalism

While NUMSA's initial endeavours- *inter alia* building union capacities on climate change, policy formulation and campaigns- were hailed as novel and strategic, Sikwebu et al (2021:60) observed that as early as 2018 the labour movement that had championed the transition to low-carbon energy was fighting the government's efforts to introduce renewable energy and appeared to be acting as defenders of fossil fuels. A concrete example of this shift is NUMSA's involvement in an urgent application to the High Court of South Africa in March 2018 with a coal transporters association called Transform SA for an interdict to stop the then Minister of Energy, Jeff Radebe, from signing renewable energy contracts with 27 Independent Power Producers (IPPs) (Sikwebu et al, 2021:60).

NUMSA was soundly criticised for this action which prompted a response from its then Deputy General Secretary, Karl Cloete, in an op-ed in the Daily Maverick in March 2018. Cloete (2018) reiterated that they remained committed to a socialist vision of renewable energy, not a capitalist vision. Under the ANC's vision, NUMSA was concerned that the main beneficiaries of the government's Renewable Energy Procurement Programme would be large foreign energy, power and technology companies, financiers, and project developers (Cloete, 2018).

Thus, according to Cloete (2018), NUMSA was not opposing IPPs in favour of coal, instead they were fighting for a socially owned renewable energy sector, a sector under public, community or collective ownership and designed to put people before profit. Furthermore, the union was also committed to a strategic and targeted local content requirement regime aimed at building a renewable energy manufacturing base in South Africa (Cloete, 2018). This concern was acknowledged as legitimate by Molaisi and Cock (2022, p:327) who agree that the labour movement is not against renewable energy. Instead, the labour movement is vehemently opposed to the government's privatised renewable energy policy which threatens to bring with it, job losses and higher energy prices (Molaisi et al, 2022). This is NUMSA's position: a publicly owned and democratically controlled renewable energy that is largely made up of state-owned entities and community cooperatives. (Molaisi et al, 2022).

2.7 Conceptual Framework: Carbon Lock-in and the Power Resources Approach

The preceding sub-section provide necessary history and context. However, since this is a study about climate change, the just transition, and the role of trade unions, I chose to approach the topic in terms of two concepts, namely: carbon lock-in and Power Resource Approach (hereafter, PRA). The former, i.e., carbon lock-in, is a concept that can be used to describe individuals, organisations-including companies and trade unions-, and governments' attitudes towards the shift away from fossil fuels. Specifically in cases where these mentioned stakeholders are seen as defenders of carbon emitting industries or display personal energy consumption sans any qualms about their impact on the environment. On the other hand, the PRA is a global trade union innovation geared towards helping trade unions around the world transform their strategies and operations to meet the needs and demands of workers in a changing world of work.

A combination of NUMSA's known affiliation with global labour's campaign for a just transition from fossil fuel and its recent strategies in the electricity sector and opposition to IPPs has exposed the union to charges that it is carbon locked in. Simultaneously, the PRA allows us to observe and critique NUMSA's access to and utilisation of various sources of power to campaign for and make a marked contribution to the just transition away from fossil fuels and high carbon emitting industries.

Simply put, “carbon lock-in is when long-lived, energy and carbon-intensive assets persist, often for decades, and lock out more efficient, lower-carbon alternatives” (Peter Erickson and Kevin Tempest, 2015:3). According to Seto, Davis, Mitchell, Stokes, Unruh, and Urge-Vorsatz (2016:445) there are three types of carbon lock-ins- namely: infrastructural and technological; institutional; and behavioural- and each has their own characteristics- see *Table 1*. In South Africa carbon lock-in presents in the form of the country’s over-reliance on coal to produce electricity, (Sikwebu et al, 2021:71). These would fall into the categories of infrastructural and technological, and institutional types of carbon lock-in with the contention that how these types of lock-ins play out ultimately affects individual behaviour.

Table 1: Summary of three types of carbon lock-in and their key characteristics

Lock-in type	Key characteristics
Infrastructural and technological	■ Technological and economic forces lead to inertia ■ Long lead times, large investments, sunk costs, long-lived effects ■ Initial choices account for private but not social costs and benefits ■ Random, unintentional events affect final outcomes (e.g., QWERTY)
Institutional	■ Powerful economic, social, and political actors seek to reinforce status quo that favors their interests ■ Institutions are designed to stabilize and lock in ■ Beneficial and intended outcome for some actors ■ Not random chance but intentional choice (e.g., support for renewable energy in Germany)
Behavioral	■ Lock-in through individual decision making (e.g., psychological processes) ■ Single, calculated choices become a long string of noncalculated and self-reinforcing habits ■ Lock-in through social structure (e.g., norms and social processes) ■ Interrupting habits is difficult but possible (e.g., family size, thermostat setting)

Seto et al (2016:445)

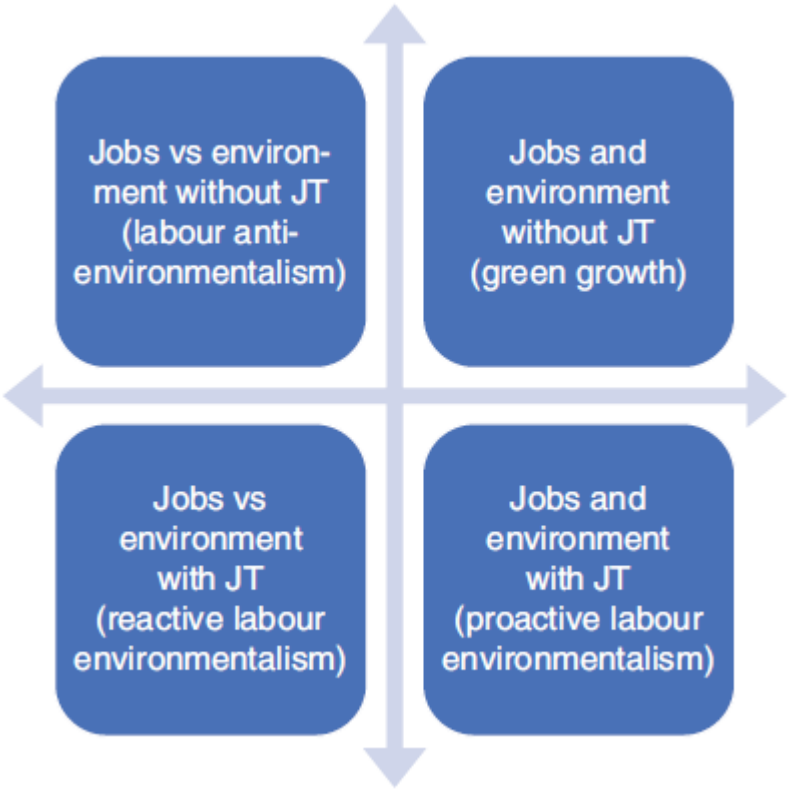
The PRA emerged from the union revitalisation debate, and it distinguishes four types of power unions can draw from (Kalt, 2022; Mirko Herberg, 2018). According to Herberg (2018:6) these four types of power are: *associational power* (collective action of workers); *structural power* (to disrupt or withdraw labour in a production process); *institutional power* (labour laws and tripartite bodies); and *societal power* (linking union struggles to broader social norms and values). Does carbon lock-in explain NUMSA’s opposition to IPPs and does it have the PRA to impact the country's trajectory when comes to the introduction of renewable energy?

While the concept of carbon lock-in is relevant in describing a trade union’s policy posture on issues of decarbonisation. The world and life are not binary, and the choices of trade union leaders are not cast in stone. Thus, more nuanced analysis and critique of those for and against the transition from fossil fuels is necessary. Even carbon lock-in theorists like Seto concede that concept of a carbon lock-in does not suggest inevitability and pessimism since it can burst asunder because of exogenous shocks that create windows of opportunity for change (Sikwebu et al, 2022). Due to the uncertain and contentious nature of discourse and developments around the energy and just transitions, I developed a sense that, while sufficient in many instances, carbon lock-in may not be provide a holistic tool to analyse trade union policies. Stevis (2023:11) holds the similar view arguing that the

'jobs versus environment' and 'jobs and environment' binary has been and can be modified to include 'jobs versus environment with just transition', 'jobs versus environment without just transition', 'jobs and environment with just transition', and 'jobs and environment without just transition'.

Figure 1 below illustrates what would be the typical attitude of many fossil fuel unions, who are opposed to just transition because they are opposed to the decarbonization transition, i.e., labour anti-environmentalism (Stevis, 2023). On the other hand, there are some manufacturing and construction unions that prefer to advocate for green industrial transitions, or green growth, that are likely to benefit from them, while potentially creating alliances with capital (Stevis, 2023).

Figure 1: Configuration of jobs, environment, and just transition, Stevis (2023)



3. Research Methodology

3.1 Approach

A combination of these the carbon lock-in and PRA concepts aided my analysis of NUMSA's to go beyond its current demonstrable opposition to IPPs by locating it in the broader analysis of organised labour's responses to climate change and how NUMSA is using its power resources to influence the country's renewable energy policies. I have been able to assess whether the concept of carbon lock-in is applicable to NUMSA based on its current strategies on IPPs and use the PRA to conduct a multi-pronged analysis of the union's tactics to impact policy based on its access to varying sources of power within South African political and socioeconomic context.

The literature review above has used the role of organised labour in the just transition as the context due to the widely accepted need to transition to cleaner renewable energy and the significant role organised labour must play in protecting the interests of workers that could be adversely affected by such transitions. To answer the research questions, I conducted literature review of secondary sources as discussed in the previous section. In addition to a background on trade unions and the just transition, I have focused on issues of electricity, renewable energy, and coal mining to locate NUMSA within contestation about the country's use of IPPs and compare it the responses of other stakeholders. The latter was achieved through online interviews with trade unionists (COSATU and NUMSA), researchers, academics, and civil society organisations operating in the space of climate change and the just transition. Adopting a documentary approach allowed me to gain a deep understanding of NUMSA's opposition to IPPs by tracking its statements and resolutions for consistencies or any deviations in its policies since it started to look at climate change as a trade union issue.

3.2 Documentary Analysis

Glenn A Bowens (2009:27) defines document analysis as a a systematic procedure for reviewing or evaluating documents both printed and electronic material. Bowens (2009) states that documentary analysis is like other analytical methods in qualitative research that require that data be examined and interpreted to elicit meaning, gain understanding, and develop empirical knowledge. Documents contain text (words) and images that have been recorded without a researcher's intervention; and yields (Bowens, 2009:27). For my documentary analysis, I relied on electronic material (policy document, statements/press releases, submission, etc) that can mostly be found on NUMSA's own websites (www.numsa.org.za). This allowed me to credibly "quote" NUMSA and use their "own words" to answer my research questions and understand their position on IPPs.

Bowens (2009:28) reminds us that a qualitative researcher needs to draw on at least two sources of evidence to seek convergence and corroboration with different data sources and methods. I am using documentary analysis along with interviews as a means of triangulation to study the same phenomenon (Bowens, 2017 quoting Denzin, 1970:291). Given that any study focused on a big organisation like NUMSA has the potential to unintentionally illicit strong responses, using NUMSA's own documents or statements will assist in providing some guard against accusations that my findings are simply an artifact of a single method, single source, or a single investigator's bias (Patton, 1990 in Bowens, 2017). This factor is particularly important in this study since I only interviewed two NUMSA official and other interviewees that have- directly or indirectly- worked with NUMSA on issues of climate change in the past and/or currently. The documents selected for analysis also provided me a means of tracking changes and developments in NUMSA's policies on renewable energy since 2009 (Bowens, 2017).

The documentary analysis is based on the following NUMSA policies, statements, and submissions:

1. NUMSA Mini National Congress 2009
2. NUMSA Submission to the Portfolio Committee on Water and Environmental Affairs Re: National Climate Change Response Green Paper 2010
3. NUMSA National Congress 2012
4. NUMSA Submission to the Portfolio Committee on Energy on the Draft White Paper on Renewable Energy 2012.
5. NUMSA "Resolutions Adopted at NUMSA's Special National Congress: 16 – 20 December 2012".
6. NUMSA National Congress 2016
7. NUMSA Statement on the IPP Procurement Process 2017
8. NUMSA Statement: "NUMSA and Transform RSA granted interdict to prevent ESKOM IPP contracts" issued General Secretary, Irvin Jim, March 2018
9. NUMSA and NUM Joint Statement: "NUMSA to march with the NUM to protest against retrenchments, IPP's and closure of coal mines", November 2018, Announcement by General Secretary, Irvin Jim.
10. NUMSA Submission on Eskom Request for a Tariff Increase 2019
11. NUMSA "Press statement on Eskom", 2019
12. NUMSA Spokesperson Opinion Analysis in the Start: "Climate change deal will trap future generations into a permanent cycle of poverty and inequality" Phakamile Hlubi-Majola, The Star, 8 November 2022.

3.3 Interview Process

To inform the documentary analysis of NUMSA, I collected primary data in the form of key informant interviews. I planned to interview four groups of informants who could provide different views on the issues of renewable energy and NUMSA's opposition to IPPs. The first group was supposed to be NUMSA, NUM, SAFTU, and COSATU officials (or employees) involved in issues of climate change and the just transition, the second group was academics and civil society, the third group was industry experts and investigative journalists and the fourth was government officials in the Department of Minerals and Energy (hereafter, DMRE) and/or the presidency. My strategy to identify respondents in the trade unions, academia, and civil society was to reach out to people I worked with as a researcher in a labour support organization (hereafter, LSO) and to identify government officials from publicly available information and contact details.

I managed to contact NUMSA's spokesperson, Phakamile Hlubi-Majola, who put me in touch with NUMSA's National Secretary of National Stop Stewards Council in ESKOM and union representative PCC, Enos Mbodi. I was able to interview Enos Mbodi however I was not able to gain access to NUMSA officials and members in Mpumalanga. The other trade union interviews were with Ruth Ntlokotse in both her capacities as NUMSA second deputy president- albeit suspended pending finalisation of court cases- and SAFTU president as well as with Nkadimeng Mabowe, the NUM'S Secretary of Education Structure in the Highveld, Mpumalanga. Through my networks I was able to arrange and conduct interviews with an LSO researcher who requested to be anonymous as well as COSATU's Head of Policy and representative in the PCC, Lebogang Molaisi.

From civil society and academia, I interviewed David Howell after I made a request to the director, Bobby Peek. For the third group, I interviewed Siyabonga Hadebe, who is South Africa's representative in the ILO based in Geneva, after establishing a connection with him on LinkedIn. I was particularly interested in his views after I saw an article that was published in the City Press criticising government's pace of decarbonisation. Table 1 shows the final list interviews respondents and their detail per group. All respondents consented to be identified by their full names and the organisation/s they represented except for the LSO researcher who requested that their identity be kept anonymous.

I managed to conduct a total of ten interview using a semi-structured style to allow for consistent data collection but also have flexibility in probing themes that may emerge. All interviews were conducted online via Zoom or Microsoft Teams due to the busy schedules of the targeted respondents. For example, Enos Mbodi and Siyabonga Hadebe's interviews were scheduled around the time of the ILO's International Labour Conference in June 2023. Similarly, the interview with Ruth

Ntlokotse coincided with her court case against her dismissal from NUMSA. Interviews with ITF, NUMSA researchers, and Chriss Yelland were short but still provided valuable data for the research.

Despite managing a total of ten interviews I did not manage to conduct interviews with preferred respondents for a variety of factors. The first challenge was securing interviews with NUMSA officials, particularly regional and workplace leaders in Mpumalanga. Secondly, targeted academics that were experts on NUMSA and its policies for renewable energy, for example Prof Jacklyn Cock and Prof Vishwar Satgar, were no longer focusing on the topic when it comes to NUMSA. This points to a space for new and ongoing research as the issues of renewable energy and climate change are unfolding in real time and are no longer academic or policy exercises.

No government officials were interviewed but this was ameliorated by the fact that governments policies and statements are closely watched and highly publicised due to the country's prolonged energy crisis. Furthermore, two participating respondents in this study, namely Enos Mbodi and Lebogang Molaisi, are part of government's active efforts to develop an inclusive and representative just transition policy through the PCC.

Other targeted interviews were not conducted due to time constraints and the unavailability of respondents up to the time of drafting this report. Nonetheless, I believe that the participating respondents provided valuable information and insight into answering the research questions. The research questions centred on their involvement, knowledge, and exposure to issues of climate change and the just transition and NUMSA's policies on the same as contained in the interview schedule (see Annexure D). *Table 1* below is a list of completed interviews with the names of participants that consented to being named along with the organisations they represent. Only two participants requested anonymity. The study was approved unconditionally by the Global Labour University Ethics Committee for having a low risk level for targeted research participants- see *Annexure C*.

As part of ensuring informed and consensual participation, all targeted research participants – including those that chose not to participate- were sent a consent form (*see Annexure A*) and a sheet with information about the purpose of the research as well as contact of the relevant ethics committees at the University of the Witwatersrand and the supervisor of the study (*see Annexure B*).

Table 2: Interviews Completed

Interview Name	Gender	Race	Organisation	Title/Role	Grouping	Location	Date
Lebogang Molaisi	Female	African	COSATU	1. Head of Policy Unit 2. PCC Commissioner	Federation	Online	16 May 2023
Anonymous	Male	African	Labour support organisation	Researcher	Academia and Civil Society	Online	19 May 2023
Chris Yelland	Male	White	EE Business Intelligence	Managing Director	Industry & Media experts	Email	01 June 2023
Enos Mbodi	Male	African	NUMSA	1. National Secretary of National Stop Stewards Council in ESKOM 2. PCC Commissioner	Trade Union	Online	08 June 2023
Siyabonga Hadebe	Male	African	Personal capacity	South African Ambassador at ILO- Geneva	Industry & Media experts	Online	21 June 2023
David Hallowes	Male	White	GroundWork		Academia and Civil Society	Online	10 July 2023
Ruth Ntlokotse	Female	African	1. NUMSA 2. SAFTU	1. 1st President 2. President	Trade Union & Federation	Online	30 July 2023
Nkadimeng Mabowe	Male	African	NUM	Secretary of Education Structure in the Highveld	Trade Union	Online	03 Aug 2023
Anonymous	Male	White	NUMSA	Researcher	Trade Union	Online	10 Aug 2023
Charlotte Hall	Female	White	ITF	Global Campaigns Manager	Trade Union	Online	10 August 2023

3.4 Analysis

The interviews were recorded and transcribed. I used thematic analysis as qualitative research analysis using a table, I call a 'summary of findings' to analyse the interview transcripts using thematic coding. I used this method because no single interview was the same even though they all covered the core themes of the research and provided key insight. The 'summary of findings' table

allowed me to note and analyse the interviews according to the core themes. The thematic analysis is focused on key concepts of just transition, renewable energy, and carbon lock-in.

The documentary analysis is broadly based on the main research question and sub-questions. In this analysis I read NUMSA congress resolutions and press statements since the 2009 Mini Congress to a newspaper opinion piece written by the spokesperson, Phakamile Hlubi-Majola, in November 2022. The purpose of this was to see if NUMSA has at any point deviated from its policies for a socially owned renewable energy system overtly or covertly by through the insertion or exclusion of certain words, phrases phrase, and sentences.

3.5 Limitations

As a researcher I realised from the beginning that the subject (i.e., NUMSA) and topic of my research to scepticism or mistrust due to the political environment within NUMSA recently. I was not sure how NUMSA would respond to a researcher who is a student under the Global Labour University or worked at an organisation like the National Labour & Economic Development Institute (or NALEDI) which is a research organisation under COSATU. The concern was that NUMSA may refuse to participate in the study and withhold official access to its officials and members. Secondly, the main research question is essentially a policy question that came about from a perception that the union has shifted its policies on renewable energy.

I was able to overcome these concerns by using documentary analysis to answer the type of questions whose responses can be found in NUMSA's archives including conference resolutions and official press statements, for example. This allowed me to focus on conducting ten high level interviews with senior union officials, experts, and key informants on NUMSA's policies on IPPs and the country's shift away from coal.

Nonetheless, if time and budget had allowed, it would have been optimal to conduct fieldwork research in select electricity generation plants and coal mining towns to interview workers (mostly NUMSA members), communities, and local businesses affected by the introduction of IPPs and closure of coal mines or power plants like Komati.

4. NUMSA's Renewable Energy Policies: 2009 – 2019

4.1 Introduction: The Genesis of the Socially Owned Renewable Energy Policy

NUMSA first decided at the 2009 Mini National Congress to take interest on the matter of the country's energy at a time of crisis and because it organises workers in ESKOM. NUMSA saw energy, particularly electricity, as a basic right. In the context of blackouts and loadshedding in 2009, the union noted that there was a lack of investment in Eskom's generation capacity and other environmentally friendly sources of energy on the part of government. This was especially concerning to NUMSA as they saw this as compromising the human rights situation of the South African population. At this time, NUMSA was looking at the issue of energy based on how government and ESKOM were responding to load shedding. The environment and renewable energy were referred to broadly. Thus, the union resolved that it needed to investigate the country's energy crisis and study the impact of load shedding. This resolution was the genesis of the development of NUMSA's policies on climate change and renewable energy culminating with resolutions that would be taken at the 2012 National Congress.

4.2 Initial Responses to Government's Climate Change Policies

Before the 2012 congress, NUMSA (2011) made submission to parliament on 'National Climate Change Response Green Paper 2010' where it telegraphs its future policy position on matters of climate change and energy. NUMSA (2011) was of the view that the country should avoid the temptation of seeking market solutions to what was becoming an extremely fundamental problem. NUMSA (2011) suggested that it was important to explore ideas about how production, distribution and consumption of energy can come under some form of collective control to satisfy human and ecological needs rather the needs of the profit-driven world market. This exploration of 'some form of collective control' was the first time NUMSA hinted at its preference for a socially owned renewable energy sector, which would become a policy at a national congress in 2012.

The 2012 National Congress is where NUMSA formally outlined its' policy and campaign for 'Building a Socially Owned Renewable Energy Sector in South Africa'. The congress resolved that:

> "As a union we should, in opposition to plans to build a Renewable Energy sector driven by the private sector, fight for a Socially Owned Renewable Energy sector; a sector made up of a mix of energy parastatals, cooperatives, municipal-owned entities and other forms of community energy enterprises."

This ecological moment of 2012 would be driven by social forces which included a worker-based research and development group, a research and development programme, and an alliance building approach at local and international level (Pillay, 2017). The alliance building approach saw the

establishment of a broad-based Electricity Crisis Campaign in South Africa, and participation in an international union coalition, Trade Unions for Energy Democracy (hereafter, TUED), and energy-related campaigns (Pillay, 2017).

It can be said NUMSA took such a resolution in direct response to government's plans to develop renewable energy sector through the Renewable Energy Procurement Programme which was meant to cost R100-billion between 2012 and 2016; and Integrated Resource Plan (IRP) of 2010 to generate 9% of all electricity in the country by 2030 from renewable energy sources. Enos Mbodi (interview), NUMSA's National Secretary of National Stop Stewards Council in ESKOM and union representative in PCC, states that the union was of the view that energy is a public good that should not be privatized, and ESKOM must always have a role.

On the issue of coal and renewable energy, the union adopted its resolutions noting the role that coal plays and how detrimental it is to the environment, including workers' health (Ruth Ntlokotse, interview). Thus, according to Ntlokotse (interview)- the suspended second deputy president of NUMSA and SAFTU president- there were discussions about clean coal and what is required. "That is why we came to the conclusion that we definitely need to move to renewable energy but the path that SA was following was very detrimental and as workers we needed to have a voice" (Ntlokotse, interview). Furthermore, both long term NUMSA members and senior office bearers added that, from the beginning, the union expressed the need for socially owned IPPs that allowed communities to generate their own electricity to feed into the grid or for self-sustainability (interviews: Mbodi and Ntlokotse). Mbodi (interview) makes uses an example of solar energy and rural areas. In this scenario, Mbodi argues that rural communities should have a say in the projects and how the resources are going to be sold and benefits distributed in a SORE system.

4.3 Opposition to IPPs Rooted in Ideology

At the 2016 National Congress, NUMSA reaffirmed the 2012 resolutions calling for a socially owned renewable energy sector opposing the idea of the private sector playing a leading role in a new low carbon development path. The congress declarations also made references to its support for ecological alternatives to coal (Pillay, 2017). Pillay (2017) highlights some of the alternatives, inter alia: opening up to alternative energy, its demand that the country exploring alternative sources of renewable energy (solar, wind, water), decreasing reliance on coal, and reaffirming that the manufacturing and servicing of solar systems and power stations would be done locally. NUMSA also made a firm commitment to join NGOs like Section 27 to campaign against nuclear power stations (Pillay, 2017). This 2016 congress also served as a moment for the union to re-affirm its social

movement union character by stressing that it was a union that linked shopfloor struggles with community struggles (Pillay, 2017).

NUMSA blamed capitalist accumulation for excessive greenhouse gas emissions and resultant global warming and climate change (NUMSA, 2012). IPPs are a symbol of government's efforts to privatize or let the private sector lead the country's low carbon path in the eyes of NUMSA. NUMSA's position on climate change is ideological and is dogmatically opposed to the notion that capitalism can lead the world in resolving global warming. According to the union, the debates on climate change were not neutral and any energy system that would have the interests of the poor as its core aim would be bitterly fought for and against (NUMSA, 2011). NUMSA positioned itself on the side of the poor based on its' ideological orientation, which is opposed to capitalism.

In its submission to parliament on the 'National Climate Change Response Green Paper 2010' NUMSA (2011) quote their General Secretary, Irvin Jim, who at an international climate change conference in 2009, said:

> "We are convinced that any efforts to address the problems of Climate Change that do not fundamentally challenge the system of global capitalism are bound not only to fail, but to generate new, larger, and more dangerous threats to human beings and our planet."

Thus, the active opposition to the early roll out of IPPs was fundamentally in resistance to the threat of a new system of global capitalism, that of green capitalism. In 2013's Special National Congress, one of NUMSA's momentous resolutions was to explore the establishment of a socialist movement borne of the need of a working-class political organisation committed in its policies and actions to the establishment of a socialist South Africa. Under such a regime, there would be limited scope for the private sector to play a leading role in the provision of a service that is crucial to the functioning of government, communities, and the economy. Ntlokotse's (interview) provides a succinct summation of this stance, stating that NUMSA had to be explicit that the IPPs it was opposed to were neoliberal and about privatisation instead of socialisation where the communities would be allowed. An interviewed Labour Support Organization (hereafter, LSO) researcher also explained that NUMSA opposition to IPPs must be understood in the context of its history of campaigns against privatization in general.

Another ideological aspect of NUMSA's opposition to IPPs is the preferred trade union definition of just transition. The union acknowledged that the renewable energy sector had the potential to give communities greater control of their resources and satisfy their energy needs on a decentralised basis (NUMSA, 2012). NUMSA could not take its eye off the threat of renewable energy being

another site for of inequality, hierarchy, gender oppression and exploitation. Thus, the union could not support the roll out of IPPs without endeavouring to ensure that the interests of workers and communities are looked after in the shift to renewable energy. There was scepticism on the part of NUMSA that a low carbon path led by the private sector would be developmental and address issues of decent jobs and the elimination of unemployment (NUMSA, 2012).

Most recently, in an opinion article in The Star, NUMSA spokesperson, Phakamile Hlubi-Majola (2022) reiterated that the union's opposition to the roll out of IPPs was out of concern that government's renewable energy programme would fail the test of a Just Energy Transition because it does not serve the interests of the majority of South Africans. The failure to make the energy transition just means that the country would not be able to address the socio-economic challenges of unemployment, poverty, and inequality (Mbodi, interview). The just transition is a concept that Ntlokotse passionately believes that the union did not compromise on, especially when it came to workers: "There we were not wishy-washy. This transition must be a transition that will allow decent jobs and workers must be absorbed" (Ntlokotse, interview). In her article, Hlubi-Majola (2022) similarly reemphasised the point that NUMSA has always called for a human centred approach to a just transition that puts workers and their families first as envisioned in the ILO guidelines.

4.4 Opposition to Privatised Renewable Energy or Defence of Coal?

In the early years of load shedding, the union was already expressing its belief that load shedding was the result of privatization at ESKOM in the 2009 Mini Congress. Thus, at this mini congress NUMSA (2009) resolved that it would have to ensure that processes of renewable energy development did not lead to privatization through sophisticated process of management techniques on the part of government and ESKOM instead of them improving service delivery. This broad concern over privatization was detailed at seminal 2012 National Congress, which up to today informs NUMSA's opposition to IPPs. The 2012 congress stressed the union's concern regarding privatisation, noting that the government was handing the entire process of decarbonisation to the private sector through IPPs. While the privatisation of ESKOM has not being adopted as government policy, the union also cautioned against the privatisation of parastatal power producer through sophisticated means. The union could argue that ongoing plans to unbundle ESKOM into three divisions - namely: transmission, generation, and distribution – fit the description of sophisticated means of privatisation. Sarah Smit (2023) suggests that, under the terms of the national treasury's proposal to takeover ESKOM debt, this means that in the future ESKOM will not be able to invest directly in new generation capacity, including renewable energy. "Instead, its future will be about transmission, buying electricity from other entities and selling it on" (Smit, 2023).

Some of the union's rejection of IPPs was informed by the observation that workers and their communities stood not to benefit in what could be another capitalist grab to enrich a few and to commodity natural resources for profitable sale in the world-market (NUMSA, 2012). More problematic for NUMSA (2012) was the prediction that the main beneficiaries of the Renewable Energy Procurement Programme would be large foreign energy, power, and technology companies; financers and project developers and that South Africa will continue to be a recipient of products developed in the North on the terms of the world market and global patent regimes.

The union remained committed to the long-term vision of a just transition to renewable energy. However, by 2018 the union had made certain choices and aligned itself with stakeholders who were seen as defenders of coal at the expense of cleaner sources of energy. Kalt (2022), for example, observed that NUMSA switched to oppositional strategies to try to prevent job losses in the coal sector such as when the union went to court to prevent Eskom from buying renewable energy from IPPs in 2018. After brief success in the court action that halted government's IPP plans, the NUMSA, Irvin Jim, general secretary released a statement on the union website explaining:

> "We joined this application with Transform RSA to protect the livelihoods of thousands of workers and their families. NUMSA believes that the signing of these contracts would be detrimental for the working class of Mpumalanga and the country. The signing of the IPP means that Eskom will require less coal fired electricity. This is likely to lead to the closure of the coal fired power plants and the impact will be that at least thirty thousand working class families will suffer because of job losses" (NUMSA, 2018).

NUMSA eventually lost this case. Nonetheless, this choice of action resulted in NUMSA being seem as fitting the classical definition of a union whose climate change strategy is informed by whether their members stand to lose or benefit from the shift to renewable energy. In other words, carbon locked in.

Furthermore, in the same year, NUMSA and the NUM released a joint press statement to announce a march to protest retrenchments, IPP's and closure of coal mines in November 2018. The NUM, as the leading trade union representing coal miners, had always sought to protect its members' jobs. Both unions were also in the middle of tense wage negotiations in which ESKOM offered workers a zero percent wage increase (NUM and NUMSA, 2018). Part of the statement rejected the signing of the IPP's at the expense of a wage increase for workers and their job security and demanded a socially owned renewable energy sector where workers and the community will be direct beneficiaries of the project (NUM and NUMSA, 2018). Furthermore, they demanded a just transition which will ensure that workers at coal fired power plants would not lose their jobs because of the transition from fossil

fuels to renewable energy and that they be trained and absorbed into the renewable energy sector. NUM and NUMSA (2018) declared that: “We cannot solve the problem of climate change by exacerbating joblessness”.

Ntlokotse (interview) agrees that it was in this period where NUMSA was seen as having betrayed its commitment to a just transition. However, Ntlokotse also pointed out that this was heavily influenced by the labour outcomes of the rollout of a private sector led solar electricity project that was implemented in the Northern Cape shortly after the government launched the REIPP in 2011. According to Ntlokotse (interview) the union noted how jobs were only created in the early phases of the projects on activities such as construction and installation of solar panels. Once the operations were running downsizing happened and many rejoined the ranks of the unemployed in the province (Ntlokotse, interview). This is when the union became more vocal about the protection of jobs in coal and electricity value chains and receiving criticism that it had become workerist on issues on climate change according to Ntlokotse (interview).

Looked at in isolation, the above events can be used as evidence to argue that carbon lock-in, or narrow focus on worker issues, explains NUMSA’s opposition to IPPs. However, a more nuanced reading and analysis is necessary. The union also sought to link the closure of coal mines and coal powered stations in favour of renewable energy with the broader impact on the working class and economy. The 2013 special congress resolved that before people become workers, they are community members, and the United Front would serve to connect issues that are affecting the community struggles and those that affect workers (Ntlokotse, interview). Thus, NUMSA’s submissions to National Energy Regulator (i.e., NERSA) expressed its opposition to proposed electricity tariff hikes in 2019 since electricity was already very costly for the working-class majority who often resort to service delivery protests mostly linked to lack of electricity services. IPPs were again seen as a contributing factor to ESKOM applying to increase electricity prices in this NUMSA submission and ESKOM, and government by extension, is castigated for their introduction at the expense of workers and surrounding communities. NUMSA (2019:2) argued that in Mpumalanga, a province whose economy depends solely on the existence of the coal-fired power stations, IPP agreements were signed without a Social Plan in place for the province. The union also made a point to remind NERSA that the country’s renewable energy policy was informed by ILO guidelines that are part of the Paris Accord (NUMSA, 2019).

From 2009 to 2019, NUMSA has made it clear that it wanted IPPs scrapped in favour of a just transition to a socially owned renewable energy. This was consistent with NUMSA ideological

opposition to privatisation, in this case the struggle is against privatised energy (LSO researcher, interview).

4.5 2018 Stands Out as the Year of Decisions Anomalous to Official Union Policies

Official NUMSA policies on renewable energy opposing IPPs in favour of a just transition and a social ownership were never changed through congress resolutions in the ten years of their development and adoption between 2009 and 2019. However, 2018 stands out as the year that the union was seen as making decisions that gave credence to the perception that NUMSA had abandoned its support for renewable energy to explicitly associate itself what was seen as the coal lobby. Joint statements and strike action with the NUM in 2018 are readily justifiable as worker solidarity in action since that both unions organise workers at ESKOM and NUMSA had expanded its scope to also organise mineworkers in 2013. It was the above-mentioned joint court action with Transform RSA that was harder to justify and left the union vulnerable to criticism based on such overt actions in defence of coal.

At the time of the court action the union still made a point to highlight the plight of workers and the poor and how they would be adversely affected by the introduction of privately owned renewable energy in place of ESKOM as per standing policy. Besides the statements issued by the general secretary, Irvin Jim, through the public media and the union's own media platforms there was no record of any constitutional event or meeting that indicated that the union had taken a decision to actively defend coal mining as part of the strategy to oppose IPPs. The only available source of information at the time was an article by the AmaBhungane, Centre for Investigative Journalism, in an article titled 'Cornered by Capital?' in 2018. The unfolding and impact of events described in the article were affirmed in interviews with Ntlokotse and David Hallowes who is Writer and Researcher at Groundwork responsible for its annual report on environmental justice.

The AmaBhungane[1] reported that in middle of 2018, Irvin Jim changed the rhetoric on energy issues and adopted a tough anti-renewable, pro-coal stance in a major departure from policies and positions that NUMSA previously articulated. This marked shift was linked to the general secretary's close connections and clandestine meetings with Matshela Koko, a corruption accused former executive at ESKOM (AmaBhungane, 2018). Matshela Koko is one of the public figures that were accused of grand corruption in South Africa, and he was particularly tied to signing of dubious contracts during his tenure at ESKOM. This apparent influence of outsiders like Koko on NUMSA leaders was also observed by Ntlokotse (interview) who recounted how there was involvement of

[1] In 2018 AmaBhungane spoke to nine current and former NUMSA and SAFTU insiders who hold, or held, senior positions within NUMSA, its investment arm and the federation. (16 October 2018)

people like Matshela Koko, and others associated with Jacob Zuma, the then president of South Africa.

According to Ntlokotse, some people had realised that the union has an impact when it comes to issues of renewable energy, so they targeted certain individual leaders to lobby so that their interests are incorporated into the policies of NUMSA. Ntlokotse stated this was when the union started to look like it was moving from one lane to the other and even causing confusion within the organisation because policies on renewable energy where being imposed from the top. AmaBhungane interviewed NUMSA insiders who spoke of how Jim became obsessed with coal and most of them had no knowledge of how the decision to join the unsuccessful court action with Transform RSA was made. Both the AmaBhungane investigative report and Ntlokotse draw a strong link between these unsanctioned external interactions by the general secretary and the choice of actions that were anomalous to the espoused support for green jobs, investments in clean energy and a move away from coal on the part of NUMSA.

AmaBhungane obtained testimonies that were consistent and together painted a picture of widespread dissatisfaction within NUMSA and the SAFTU over Jim's leadership. Similarly, other sources, inter alia: academics, advisors, activists, and members of civil society, who worked with NUMSA and the SAFTU charged that internal democracy has withered under Jim's watch, and that he was increasingly isolated, surrounded himself with ideologues and moneymen while neglecting organisational matters and the branches (AmaBhungane, 2018). This authoritarian and highly partisan political atmosphere within the union derailed the union's pioneering policies and programmes in pursuit of socially owned renewable energy. NUMSA officials like Karl Cloete and Dinga Sikwebu were forced out the union for transgressions that seemed to be particularly offensive to the leadership group lead by the general secretary (interviews: Ntlokotse and Hallowes). Once these two officials- as well other less well-known figures- were expelled, the unions work on the just transition was sidelined (interviews: Ntlokotse and Hallowes).

The entire process of discussions of NUMSA's just transition policies was just put aside in favour of the more immediate political fight that was going on around the split with COSATU according to Ntlokotse and Hallowes (interviews). Anything to do with the just transition is discussed at a higher level and workers have been reduced to passive recipients of concluded discussion documents in the form of secretariat reports (Ntlokotse interview). When it comes to the union's commitment to the just transition Hallowes (interview) was unequivocal in his dismissal of the bona fides of the NUMSA leadership, frankly, stating that:

"2012 Policy that NUMSA came up with work quite well for the current lot as a kind of shield against a left-wing critique of their changed position. They are using work that they did then, which was subsequently sidelined, as if it were still at the heart of NUMSA's policy and I do not think it is."

Most of the blame is placed squarely on the shoulders of the powerful Irvin Jim, the general secretary (Hallowes, interview). When I requested for an interview with one of the country's leading experts on electricity, Chris Yelland, the request was declined with the explanation: "My knowledge of NUMSA is very limited and generally negative with Irvin Jim at the helm" (email, 1 June 2023).

Before the phrase 'carbon lock in' became part of the industrial relations lexicon, 'business unionism' was the term ascribed to the trade-union philosophy and activity that concentrated on the improvement of wages, hours, working conditions, etc., rather than on the general reform of the capitalistic system[2]. Another aspect of 'business unionism,' as noted by the South African Communist Party in 2015, is that of trade union owned investment companies (AmaBhungane, 2018). The communist party warned that this risked undermining the independence of unions and creating internal competition over the control of resources (AmaBhungane, 2018). The AmaBhungane article goes into great details about how the union's investment arm, NUMSA Investment Company (i.e., NIC), did become a site for internal strife as well as tensions with SAFTU. Again, these details were reaffirmed through interviews with Ntlokotse and Hallowes. For example, Hallowes (interview) made the extrapolation that, what is happening at NUMSA is corruption within the union instead of business unionism. Similarly, the currently suspended deputy president, says she was ousted by the beneficiaries of corruption within the union leadership which accused of not acting in the interests of its members after the NUMSA central committee voted to dismiss her on 7 July 2023 (Steyn, 2023).

According to Hallowes (interview) in 2022 at a NUMSA congress in Cape Town, a whole grouping of people was excluded from that to make sure that Irvin Jim retained power. In August 2023, Ntlokotse was in the process launching an urgent application to the Gauteng high court to declare her expulsion from the union unlawful and invalid (Human, 2023). Some of the corruption allegation include revelations that the General Secretary Irvin Jim benefited from R40,000 for a birthday party and a laptop for his daughter with money taken from to a life insurance company, 3Sixty Life, owned by NUMSA's workers trust (Stent, 2022). Ntlokotse went as far as suggesting that the general secretary was attempting to silence members critical of NUMSA's 'corrupt leadership' and encouraged its members to call for a forensic audit of the investment company and a lifestyle audit on their leaders (Human, 2023).

[2] Business Unionism definition: https://www.dictionary.com/browse/business-unionism

4.6 Conclusion

In looking at the history of NUMSA's policies and actions on matters of climate change and renewable energy, I find that the union's policies do match up to those espoused in the global labour movement for just transition. It was rather in the capture of the union power and the closure of the internal democratic space that explain the apparent shift to oppose renewable energy in defence of coal in South Africa. In exploring 'The Anatomy of Corruption in Trade Unions', Jonh Hutchinson (1969:135) suggests that trade union corruption is complex matter which is a product of trade union philosophy and government. Hutchinson surmises that trade union corruption is more attributable to wayward trade union officials than external factors like predatory employers, corruption in politics or law enforcement (Hutchinson, 1969:135). Furthermore, trade unionism should not be regarded as an instrument of commercial profit (Hutchinson, 1969:135). Hutchinson (1969:135) provides a useful definition of trade union corruption which is: *"the use of union power for private, unsanctioned enrichment, by anyone"*.

Arguably, this is what has happened at NUMSA according to various media reports and interviews in this report. The union has created profit making commercial instruments and they are now being accused of illegitimately enriching themselves privately from the same profits. At the same time, NUMSA's leaders, under Irvin Jim, were seen to be aligning the union's decisions in the coal electricity value chain with individuals that were widely accused of corruption in the sector. Thus, it is the dubiousness around NUMSA's leadership that better explains the increasingly negative perceptions of the union as a leader in the struggle for a just transition from coal in South Africa.

5. The State of NUMSA's Campaign for SORE by 2023

5.1 Introduction

A power resource approach is useful in analysing NUMSA's opposition the introduction of renewable energy at the expense of fossil fuels because it provides an understanding of how organised labour can use more than one strategy in its various struggles. In this case the struggle for a just transition to renewable energy and sustainable green economies. NUMSA's opposition to the perceived rapid shift to IPPs as a major source of energy in South Africa has involved: collective bargaining and threats of labour disruption to protect workers' wages and jobs at ESKOM; coal mines and coal powered plants. Furthermore, the union continues to use the country's courts and laws to challenge government's plans to roll-out REIPPs while it participates in tripartite bodies like NEDLAC and the PCC. NUMSA has sought to link the issue of renewable energy with the broader socioeconomic interests of surrounding communities and the nation.

With all factors considered, using a power resource approach, could it be said that NUMSA's opposition to IPPs is justifiable- despite misgivings about its current leadership? This chapter also considers if the concept of a carbon lock-in aptly applies to NUMSA's current position on IPPs.

5.2 Justifiable Opposition to the Rollout of IPPs?

The interviews conducted with NUMSA officials, civil society, and climate change experts reveal that NUMSA is not alone in its opposition to IPPs and the criticism that the South African government is leading the country down an unjust transition to decarbonisation. The roll out of REIPPs and closure of coal powered power plants has not delivered desired results in affected areas like Northern Cape and Mpumalanga. The union's forecast and, often repeated, caution to government and ESKOM that a hasty privatisation of the production of power will only serve to harm country's economy and its citizen are proven as justified by current national and global developments around coal, renewable energy, and the need for a stable base supply of energy. Furthermore, NUMSA has been consistent in its messaging that it is not opposed to renewable energy and the phasing out of coal. Instead, the union is insisting that this must happen with the application of the principles of a just transition as defined by the ILO and adopted globally under the Paris Accord.

NUMSA's ideological opposition to the private sector playing a leading role in the production of electricity has arguably been proven rational by recent developments around IPPs and the move away from coal in the country. Ntlokotse (interview) states that, from the beginning, the union agreed on the principle that coal contributes to climate change and the increasing temperature of the atmosphere. From this acknowledgement, the union had discussions and concluded that there was certainly a need to move to renewable energy, but the concern was the path that South Africa

was following seemed very detrimental and workers needed to have a voice on the issue (interview, Ntlokotse).

NUMSA no longer relies solely on the history of privatization in general and examples of unsuccessful experiments of privatisation of electricity generation or disastrous investments in renewable energy to explain its opposition to IPPs. NUMSA's warning that the introduction of IPPs in their current form will not benefit workers and surrounding communities has been proven credible by research and media reports on people's lived experiences following the closure of Komati power station in Mpumalanga or the lack of job creation in solar energy project in Northern Cape as cases in point (Interviews: Ntlokotse and Mabowe). Ntlokotse (interview) refers to the developments in the Northern Cape as a credible factor in their continued opposition to roll out of IPPs at the expense of decent jobs in coal mines and ESKOM's power stations. Ntlokotse (interview) said that this taught the union that in the beginning jobs will be there but as time goes by and the project is running, downsizing happens. The type of jobs created were not decent and sustainable without access to bargaining councils to advance workers' rights (interview, Ntlokotse).

A study by Taylor (2021:32) has already noted this scenario and concluded that the blanket statement that renewable energy creates more jobs and cheaper electricity did not seem to resonate with the experiences of those of who have worked on the solar plants built in and around Northern Cape towns. Taylor (2021) found that workers were not employed directly by European companies in the construction of solar plants. Instead, they were commonly hired through subcontractors where they faced various issues of working conditions like being underpaid, facing unfair suspensions or dismissals as well as lack of collective bargaining (Taylor, 2021). Hence, according to Ntlokotse, NUMSA became more resolute to defend its members in the electricity and coal value chains.

In the coal province of Mpumalanga, the Komati power station was shut down to be re-purposed as a renewable energy training facility that is re-powered by renewable technology. However, this only served to kill jobs and even ESKOM is starting to agree that the closure of Komati was not managed in a proper manner according to Ntlokotse (interview). Many of the interviewees talk about how this has not only impacted negatively on workers at Komati but also coal supplying mines and contract workers. Power stations had outsourced many functions over the years and there were at least two hundred contractors at Komati (LSO researcher, interview). While the unions opposed outsourcing, they still expressed concerns for the plight of the workers employed by the contractors. Nkadimeng Mabowe, NUM's Regional Education Secretary in the Highveld (interview) provided a succinct description of the impact of the closure of Komati with this quote:

"We have what we call service providers, and they carry a large portion of workers that are servicing the power stations, and those people are seasonal workers. They come in at what we call the general overhaul of plant maintenance or shutdowns, in company terms. As and when they are required. Those shutdowns usually take three months or more, or less, depending on what type of shut down it is. People would find work: welders, artisans, electricians, and all those artisanal jobs. People found employment and they were able to sustain themselves for another three months without a job and then get another three months' job. They were used to that contract work. Now those people are no longer getting that kind of employment. There's zero now"- Nkadimeng Mabowe (interview).

Two other major promises about the closure of Komati and the rollout of renewable energy were that workers and communities would be redeployed and reskilled to assume other job opportunities elsewhere within the electricity value chain or forthcoming clean energy jobs (interviews: LSO researcher and Mabowe). These have not materialized and add credence to the criticism that government is embarking on an unfair transition (LSO researcher, interview). This failure to develop skills can be traced back to the roll of a solar geyser project at launch of the Green Accord in 2011 (LSO researcher, interview). There was a commitment to develop skill back then but communities that participated in the project have been left with broken geysers on their rooftops because there are no technicians to maintain and fix them (LSO researcher, interview).

When it comes to Komati, a reskilling centre was to be built and people would be reskilled in terms of farming, and other new skills that are being brought on board but currently there is nothing that has been established yet, but the power station is closed (Mabowe, interview). Redeployment has also left some workers, especially those with settled families, worse off because some were redeployed far from their homes without any salary increases (Mabowe, interview). Workers who were able to and could afford to, relocated but others had to deal with added expenses of finding accommodation closer to their new stations and maintaining two households with the same salary (Mabowe, interview).

IPPs in South Africa are also seen as failing in the sense that when it comes to energy generation principles renewable energy is yet to provide baseload anywhere in the world (Hadebe, interview). The LSO researcher (interview) also highlights that there are concerns about whether renewable energy will be able to provide baseload at a time when the country has a loadshedding crisis because it is unable to meet its' energy demands. According to the researcher (interview) Komati was closed without a clear plan. At the time of writing (i.e., July 2023) the Minister of Electricity had grabbed headlines in the country for saying that if it were up to him the Komati powers station would be reopened to alleviate the electricity crisis South Africans are struggling through.

Beyond the undesirable socio-economic outcomes in the most directly affected localities, the combined inability to readily turn to renewable energy to ameliorate loadshedding and the lack of South African companies in the sector also impacts on the country's economy and industries. Hadebe (interview) argues strongly that taking out ESKOM tantamount to de-industrialisation. Thus, NUMSA's concerns must be taken seriously as they operate in the space of manufacturing and loadshedding is causing many companies to close and big multinational national corporations are considering leaving (Hadebe, interview). In the province of Kwa-Zulu Natal, for example, smelters in Richards Bay cannot service on renewable energy as it is miniscule and unreliable according to Hadebe (interview).

On the other hand, the influx of renewable energy equipment from countries like China and the rollout of IPP projects that are dominated by European companies means that the country may never develop its own renewable energy industry to replace the winding down coal industry. There is already evidence that it is European firms that are dominant in the country's renewable energy sector. Julia Taylor's (2021) research on solar plants in the Northern Cape found that the construction of plants was usually controlled and managed by companies from Spain, Italy, Germany, or France. My own search on the origins of companies that signed Power Purchase Agreements with ESKOM and government in Bid Windows 5 in 2022 also found that many of the preferred bidders were from France (Total and Engie) and Norway (Scatec). Mbodi (interview) sees this as a case of the country exporting money.

Lebogang Molaisi (interview), COSATU's former Head of Policy and commissioner at PCC, [she is since July 2023, COO of the PCC] provided a succinct characterisation of organised labour's position on renewable energy, stating that union ideology on social and democratic ownership of means of production is that they want a public pathway. What is happening in South Africa right now is that all the key players in the development of the renewable energy sector are in the private sector (Molaisi, interview). Mbodi (interview), similarly decried the fact that, beyond the dominance of the private sector, there are only two or three companies that are truly South African. Which means that the country is exporting money (Mbodi and Molaisi, interviews). Hence, the belief that if IPPs are socially owned it will be better than just saying let the market play its role (Mbodi, interview).

Both labour PCC commissioners (Molaisi and Mbodi) talk about these as factors some of those that the country needs to address if it is to achieve its just energy transition goal. As Hlubi-Majola (2022) explained: "One of the key arguments NUMSA made to justify stopping the roll out, was that the introduction of REIPPs meant that coal fired power stations were going to be shut down to make way for privately owned renewable energy companies". Hlubi-Majola (2022) chastises the South African

government for its' hollow promises of job creation initiatives to be created by REIPPs, while to date there is still no social plan from the state to replace these jobs and create new industries. Ironically, the same analysis applies to NUMSA as there are no known efforts to organise communities and former workers in Mpumalanga, for example, nor are there renewable energy policies for specific industries.

5.3 Energy Transition Uncertainties do not Necessarily Save the Union from being Labelled as 'Carbon locked-in'.

Chapter 4 confirmed that NUMSA has not changed its policies when it comes to the campaign for renewable energy at any congress resolutions or in statements issued by the general secretary or spokesperson. It was rather the isolated decisions and actions of the national leadership level that was operating beyond their official mandate. Nonetheless, NUMSA's defence of ESKOM workers still sees the union being put in the same group as coal mining unions like NUM and being carbon locked in. I found three developments that, at face value, seem to particularly useful for NUMSA, or anyone, to argue that it is not merely a defender of coal. The first standout development was the highly publicised opposition to the introduction of IPPs and closure of the Komati power stations by two ministers, namely the Minister of Minerals and Energy (Gwede Mantashe) and the Minister of Electricity (Kgosientsho Ramokgopa). The second is the impact of global affairs like the Russia-Ukraine war and lack of consistency in how fast other countries move away from coal, if at all. Finally, I refer to the *'Response to the Draft Report of the PCC on South Africa's Electricity Strategy: drawing attention to Serious Flaws and Inadequacies'* by Truth in Energy (hereafter, TIE) and the Freedom Foundation. For example, they point out that all new policy proposals and laws must be supported by properly conducted Socioeconomic Impact Assessments (i.e., SEIA) that examines all costs, benefits, and possible unintended effects before going forward to policy and law (TIE et al, 2023:5). But it seems that the government has not conducted such SEIAs.

Ntlokotse and Hallowes (interviews) noted that the country's ministries are not singing the same song from Gwede Mantashe's long standing resistance to IPPs and the newly appointed Minister of Electricity had complained that the closure of the Komati power station was not done well. A recent article by Bloomberg (25 July 2023) reported how electricity minister attacked the country's groundbreaking $8.5 billion climate finance pact with some of the world's richest nations whereby it will close some coal-fired power plants and re-purpose them to produce renewable energy. The minister (i.e., Kgosientsho Ramokgopa) was quoted as saying that "an injustice that is unfolding at Komati in the name of the transition. We closed a power station which was the best-performing power station at the time that we closed it, and because someone gave us money and said decarbonize, we are getting 217 megawatts of alternative energy, and we removed 1,000 megawatts"

(Bloomberg, 2023). This statement was like one made by the of Minerals and Energy, Gwede Mantashe, who said that the term 'just' does not apply to the closure of Komati when there are comparisons between jobs destroyed and the number of jobs created; the megawatts destroyed and those created (Omarjee, 2023). Mantashe has gone as far as saying that that South Africa was being used as a guinea pig for the green transition (Bloomberg, 2023).

There has been equally forceful pushback on these ministers' assertions on Komati and the reasons for its closure. For example, Nick Hedley (News 24, 2023) wrote two articles directly contradicting the ministers on 'facts' of the decommissioning of Komati. Hedley (2023), responding to, argues that the shutdown of the 62-year-old plant had absolutely nothing to do with the country's decarbonisation efforts and that Komati was certainly not the best performing power station at the time it was closed as alleged by Minister Ramokgopa. Furthermore, Hedley (2023) added that government's just transition strategy contains no plans to accelerate the closure of coal-fired power plants; and Komati, which is the country's just transition pilot project, the plan is to retain all Eskom staff who worked there, partly by transforming the site into a green economy hub. Contrary to Mantashe's comments about the destruction of jobs, Hedley (2023) reported that Eskom has said that none of its permanent Komati employees have lost their jobs as some have stayed on for the repurposing project, and others have been redeployed elsewhere. In a letter to NUM, NUMSA and Solidarity, ESKOM promised to ensure that the rights of its employees are respected and outlined that: employees' terms and conditions of employment would remain the same; continuity of the employees' tenure would be recognised; all collective agreements would also remain in force; and there would be no retrenchments related to the transfer and for a further 12 months after the date of transfer (Stoddard, 2023).

The two ministers' opinions are in blatant contradiction of President Ramaphosa's assertions that the move from fossil fuels to greener and cleaner energy sources will not take place at the expense of economic growth and job creation when presenting the Just Energy Transition Investment Plan at a media briefing in November 2022 (Nyathi, 2022). If there is no policy consensus within the executive arm of government itself regarding the impact of the current rollout of IPPs and closure of a major power plant, how is it justifiable to pin other organisations to one position when the issue of the just transition is in flux and multifaceted?

On the global front, the impact of the Russia-Ukraine war has seen a countries like Germany and others- "decarbonisation masters" in the words of the respondent- reopen some of their coal mines and import coal (Ntlokotse, interview). "The war in Ukraine has resulted in South Africa exporting more coal to these EU countries. It is the reality that informs their position today" (Hadebe,

interview). It is these kinds of developments along with China's continued development of new coal plants that make NUMSA's position to be correct (Hadebe, interview). Again, the Minister of Minerals and Energy, Mantashe, found justification for his own position by pointing out that Germany was dismantling a wind farm to expand operations of a coal mine and coal miners in the US were putting pressure on President Biden to invest more in coal production (Nyathi, 2022). Indeed, the International Energy Agency (hereafter, IEA) reported that global coal in 2022 was set to rise by 1.2%, surpassing eight billion tonnes in a single year for the first time and eclipsing the previous record of 7,997 billion tonnes set in 2013 (IEA, 2022). In 2021, South Africa (-5% coal demand) was one of a few countries that reduced their coal demand while countries like China (4.6%), India (+14%), United States (+15%), Germany (+19%) and Poland (+12%) significantly contributed to 6% increase in global coal consumption (IEA, 2022).

Hadabe (interview) points out that NUMSA and many global stakeholders are now responding to the reality that the transformation in its current form is painful. When global organised labour developed policies and committed to the just transition at the time of Rio and Kyoto COP gatherings, it was not foreseen what was going to happen in South Africa (interview, Hadebe). Hence, today even people that support the climate change agenda have drifted according to Hadebe (interview). Daniel Yergin (2022) described this as bumps in the energy transition despite growing global consensus to reducing net carbon emissions to zero. The global realities Hadebe (interview) alludes to are listed as four standout issues, or bumps, by Yergin (2022:10), particularly:

- The return of energy security as a prime requirement for countries
- Lack of consensus on how fast the transition should and can take place, in part because of its potential economic disruptions.
- A sharpening divide between advanced and developing countries on priorities in the transition
- Obstacles to expanding mining and building supply chains for the minerals needed for the net-zero objective.

In South Africa the issue of energy security has plagued the country for more than fifteen years. On the speed of the transition, Yergin (2022) had previously looked at past energy transitions and found that all previous transitions were largely driven by economic and technological advantages and not by policy as it is unfolding currently. This is true for South Africa since the government has implemented its IPP policy at a time when both the private sector and ESKOM did not have the finances and technology to readily produce renewable energy for the economy. Some of objections to the speed of the transition have also been raised in the context of the divide by some of the respondents (e.g., Mbodi, Mulaisi, Hadebe). They essentially argued that, like other developing

countries, the singular emphasis on reducing emissions needs to be balanced against other urgent priorities like health, poverty, and economic growth (Yergin, 2022). The demand that the energy transition in the country must also address the challenges of unemployment, poverty, and inequality are recognised as part of the legitimate concerns of the developing global South; which South Africa is a part of (Yergin, 2022).

Minister Mantashe, NUMSA, and respondents here make factually correct references to the impact of the Russia-Ukraine war on energy security in Europe and Germany's increased use of coal. However, this does not mean that these regions have permanently abandoned their net-zero carbon emissions. Some European countries postponed scheduled closures of coal power plants and activated coal-fired reserve capacity to limit gas usage in the power sector after Russia cut supplies (IEA, 2022). However, the IEA (2022) forecasts that Europe's coal powered generation will contract by 29% between 2022 and 2025. At the same time, the German government clarified that target to complete the country's coal exit by 2030 remained in place and that the measures that allowed coal-fired power stations to come back online to help with the energy crunch were time-limited to the end of April 2024 (Appunn, 2022).

Finally, the 'Draft Report of the PCC on South Africa's Electricity Strategy' was heavily panned by climate activists from TIE and Freedom Foundation (Izwe Lami) for its serious flaws and inadequacies. Their responses enquires if the Just Transition is for South Africa? NUMSA is dismissing all of government's announcements about foreign investment into renewable energy as nothing but the financing of an unjust transition. TIE and Freedom Foundation emphatically argue that government is being pressured by foreign governments and commercial interests effectively to sacrifice the well-being of all its citizens to satisfy theoretical calculations based on scientific data, which is disputed by many other reputable scientists and other experts internationally (TIE et al, 2023:5). Elsewhere in the document they point out that all new policy proposals and laws must be supported by properly conducted Socioeconomic Impact Assessments (i.e., SEIA) that examines all costs, benefits, and possible unintended effects before going forward to policy and law. No such SEIA has been published by the PCC (TIE et al, 2023:5). Similarly, the Institute of Human Rights and Business (IHRB, 2023:2) has noted that analysis of South Africa's lessons learned so far have focused largely on the public finance dimensions of Just Energy Transition Plans (i.e., JETP) formulation and technical initiation. Furthermore, early indications suggest that financing the "justice components" of JETPs can be less attractive to private sector investors and is heavily reliant on philanthropic funding, development aid, and public sector financing (IHRB, 2023:3). In fact, the domestic and international private investors that are supposed to crowd-in behind the initial JETP packages have not even updated their environmental, social and governance (i.e., ESG) frameworks and key international frameworks such

as the International Finance Corporation (i.e., IFC). Performance Standards have not been updated to reflect the Paris Agreement or the growth of private sector commitments to respecting human and labour rights and contributing responsibly to just transitions (IHRB, 2023:3).

All NUMSA officials quoted here in interviews (Ntlokotse and Mbodi) and written work (Hlubi-Majola) stress that the union is only opposed to the private sector taking over the energy sector and an energy transition that does not ameliorate the country's socioeconomic challenges of unemployment, poverty, and inequality. The problem with these statements is that, while they say the right things, they have not been matched by requisite visionary leadership to lead a ground-up campaign and ally with environmental groups on the just transition. NUMSA utterances about the just transition are a case of its leaders retaining the revolutionary discourse that brought the union plaudits while it has become co-opted into the coal paradigm (Pillay, 2017).

The union has not conducted its own studies on the impact of the closure of Komati on workers or supported campaigns to highlight the plight of those it claims are adversely affected by the closure of the power station. There is no evidence of NUMSA collaborating with civil society and academia for up-to-date research on the socioeconomic impacts of the transition and the formulation of informed proposals of just alternative paths to decarbonisation. While not a prerequisite for labour's ecological activism, such strategic actions would go a long way in adding credence to the defence that the union is not a merely defender of coal. Until then, the shortcomings of government policies and global energy transition will not absolve NUMSA of its own failures in pursuit of a just transition or SORE. Despite its initial endorsement of low-carbon economy transition, NUMSA has come to be seen as a facilitator of carbon lock-in because it draws members from sub-sectors that constitute or support the fossil fuel industry (Sikwebu et al, 2022). A lack of consistent campaigns for renewable energy industries that can absorb workers from traditional energy sectors on the part of NUMSA leaders has left the union susceptible to pressures about job losses from workers as much as it comes from section of the private sector and government (Sikwebu et al, 2022).

5.4 Power Resources Approach a More Holistic Tool of Analysis

The union's 2012 SORE policies located it in the frame of 'proactive labour environmentalism' in support of jobs and environment with just transition (Stevis, 2023). However, the unions innovative ecological thrust was not shared by the key leaders and their advisors in the union from as early as 2014 according to insider information obtained by Pillay (2017:13). These key leaders eventually the sidelined the key activists who had championed the union's ecological moment and SORE policies (Pillay, 2017). By 2017, the campaigns such as the establishment of a broad-based Electricity Crisis Campaign in South Africa, and participation in an international union coalitions like Trade Unions for

Energy Democracy, and energy-related campaigns were no longer active (Pillay, 2017). There were no more internal avenues to take the 2012 resolutions on climate change and renewable energy forward (2017). Instead, this sidelining of NUMSA's ecological activists culminated in the union fighting the government and appearing to be acting as defenders of fossil fuels by joining court action with a coal transporters association to oppose IPPs in 2018 (Sikwebu et al, 2022).

Rhetorically, the union is ostensibly against the type of energy transition that the South African government has embarked upon, which would put it in the 'jobs versus environment with just transition' frame (Stevis, 2023). However, under the current leadership, NUMSA cannot deflect the accusation that it has adopted a 'jobs against environment without just transition. How does the union respond to an assertion made by Hallowes (interview) that its current defence of coal is at the expense of renewable energy if it does not champion its own SORE policies even under the current energy security crisis? While the defence of workers jobs and wages is expected of trade unions, there is little incentives for trade unions to look after the interests of retired or retrenched workers according to Hallowes (interview). Ntlokotse (interview) also confirmed there no projects or campaigns to support former coal workers even when they have anecdotal awareness of the struggles of these workers. Another factor that makes the union come across as a proponent of labour anti-environmentalism is that it does not have its own credible forecasts of the impact of an unplanned sudden shut down of the coal industry due to unmitigated extreme weather events wrought on by climate change (Hallowes, interview). Hallowes (interview) predicts that worse floods and droughts by the mid-2030s will disrupt coal dependent electricity power plants and coal mines wouldn't be able to operate. The result would that the unavoidable transition finally unfolds in a more chaotic manner. Unimaginative defence of coal jobs, and by extension the entire coal value chain, is arguably futile if the only reason for its defence is the belief that the coal industry will not collapse due to the country entrenched reliance on coal (Hallowes, 2022).

While lamenting the state of South African labour's eco-socialism or why carbon lock-in explains NUM and NUMSA's defence of coal jobs at the apparent expense of renewable energy, Sikwebu et al (2022) and Pillay (2017 and 2022) still do not dismiss the reemergence of more environmentally friendly energy paradigm environmental justice and other social movements. Such views provide space to simultaneously look beyond the actions of trade union leaders and official policy to formulate a more rounded picture of their stance on any worker or working-class issue. The PRA is useful here because it can aide in scrutinising how NUMSA has used a combination of *associational power, structural power, institutional power,* and *societal power* to advance its agenda for a just transition to the rollout of renewable energy in South Africa (Herberg, 2018; Kalt 2022). Kalt (2022:508) still described NUMSA as a social justice-orientated union that supports climate action in

principle but remains sceptical of phasing out coal without accompanying transition plans and is adamantly opposed to privatised renewable energy. At the same time, as archaic as it may sound, the primary role of a trade union is to serve and protect the interests of workers (interview, LSO researcher).

The union has opposed privatised renewable energy using associational and structural power by linking it's bargaining for improved wages for workers at ESKOM in collaboration with the NUM. NUMSA and the NUM released a joint press statement to announce a joint march to protest retrenchments, IPP's and closure of coal mines in November 2018. Both unions were also in the middle of tense wage negotiations in which ESKOM offered workers a zero percent wage increase (NUM and NUMSA, 2018). Part of the statement rejected the signing of the IPP's at the expense of a wage increase for workers and their job security and demanded a socially owned renewable energy sector where workers and the community will be direct beneficiaries of the project (NUM and NUMSA, 2018). Wage talks in 2021 were also characterized by the unions demanding wage increases ten times higher than the 1.5% ESKOM was offering (Mkentane, 2021). The Financial Times (27 May 2021) reported that this was part of the unions' push against renewable energy, blaming the costs of IPPs for ESKOM's financial shortfall and threatened industrial action. Admittedly, NUM and NUMSA workers were not explicitly marching against renewable energy or a just transition (Williams, 2022). However, electricity workers have occasionally shut down power production, including during the 2018 strike that won significant raises (Williams, 2022). Convincing workers to flex their strike muscle for decarbonization will take work and concerted organizing, worker anger over fossil capitalism could be converted into organizing for a socialized, de-commodified, renewable electricity sector in South Africa and everywhere else (Williams, 2022).

NUMSA's use of the country's courts and participation in multilateral institutions like NEDLAC and the PCC speaks of the union's use its' institutional power to influence both the laws and policy direction of the country on climate change and the just transition. Both NUMSA officials (interviews: Mbodi and Ntlokotse) state that this is a chosen tactic to engage with government and business in these structures so that policies are never developed without the input of organised labour. Even if the unions' demands and objections may not end up being fully reflected in adopted policies, at least their objections would be recorded as having been raised (Mbodi, interview). Participating in these structures does not mean that the union agrees with the positions that are eventually adopted by government (Ntlokotse, interview). Mabowe (interview) of the NUM also stated that the union is also lobbying ministers and the presidency through submissions to parliament, to the PCC, and through informal channels at senior leadership level. Hallowes (interview), whose organisation is also represented at the PCC, described the commission as a credible multistakeholder body.

Molaisi and Mbodi (interviews) have pointed to some elements of recent PCC just transition publications including position that were successfully lobbied for by organised labour. NUMSA demanded that ESKOM be allocated at least 70% of renewable energy production (Mbodi, interview). This is a demand that has gained some traction in the PCC's JET-IP recommendations. Molaisi (interview) reports that it was the organised labour delegation in the PCC that called for the strengthening of the role of the public sector and that initial drafts of the JET-IP did not have a role for ESKOM in renewable energy prior to their intervention. Other PCC recommendations that were co-sponsored by COSATU and NUMSA commissioners call for: drastic increase of skills development allocations; transmission remaining in the hands of the state; manufacturing of electric vehicles for public transport and the funding of state-owned companies instead of the private sector in initiatives like green hydrogen finance (Molaisi, interview). What is notable in both labour PCC representatives (interviews) and Hlubi-Majola's (2022) ideas about limiting the role of the private sector in renewable energy is the emphasis on the role of the state - e.g., ESKOM producing 70% of renewable energy - as opposed to community led initiatives as envisioned in the 2012 SORE resolutions.

While NUMSA was not able to prevent the rollout of IPPs with the court case that started in 2018, the union was part of a successful challenge of the impact of the load shedding and blackout on constitutional grounds in 2023. Along with political parties and civil society organisations, the union convinced the court that it was unconstitutional for ESKOM to shut down electricity, without providing a reliable alternative, for critical social services like schools, police stations, hospitals, and clinics.

The latter point goes to NUMSA's linking of its struggle for workers affected by the introduction of renewable energy with the broader socioeconomic impact of the closure of coal mines and power stations, i.e., associational power. This concern is more specific to the Mpumalanga where twelve out of 15 Eskom coal-fired power stations are located (Nyathi, 2022). When NUMSA highlights the issue of job losses it is not only on behalf of union members and those directly employed by power stations and coal mines. It is also about those employed indirectly through subcontractors and those that earn a living providing goods and services through informal enterprises (interviews: LSO researcher, Ntlokotse, Mabowe). NUMSA regularly makes submissions to NERSA expressing its opposition to proposed electricity tariff hikes. NUMSA (2019:9) has repeatedly voiced its objections that electricity was already very costly for the working-class majority who often resort to service delivery protests mostly linked to lack of electricity services. Kalt (2022) founds that it is actions like these that show the union was not limiting itself to workplace issues of coal and electricity workers but that it linked its struggle with that of the working class.

The union's 2012 SORE policies located it in the frame of 'proactive labour environmentalism' in support of jobs and environment with just transition (Stevis, 2023). However, the unions innovative ecological thrust was not shared by the key leaders and their advisors in the union from as early as 2014 according to insider information obtained by Pillay (2017:13). These leaders eventually sidelined the NUMSA activists who had championed the union's ecological moment and SORE policies (Pillay, 2017). By 2017, the campaigns such as the establishment of a broad-based Electricity Crisis Campaign in South Africa, and participation in an international union coalitions like Trade Unions for Energy Democracy, and energy-related campaigns were no longer active (Pillay, 2017). There were no more internal avenues to take the 2012 resolutions on climate change and renewable energy forward (2017). Instead, this sidelining of NUMSA's ecological activists culminated in the union fighting the government and appearing to be acting as defenders of fossil fuels by joining court action with a coal transporters association to oppose IPPs in 2018 (Sikwebu et al, 2022).

5.5 Conclusion: Inertia Best Sums Up the Current State of the Campaign for SORE

Despite NUMSA's calls for a socially owned renewable energy system since 2012, the South African government seems to be forging ahead with the private sector, including multinational corporations and European states, playing a key role in the country's renewable energy mix and the privatization of ESKOM. For instance, in October 2022, ESKOM announced that, under the direction of government, it was unbundling into Transmission, Generation and Distribution divisions which will be separated from the ailing power utility and housed in separate, wholly owned legal entities (Stoddard, 2022). ESKOM said that it was going ahead despite the opposition of trade unions (i.e., NUMSA, NUM, and Solidarity) because it had exhausted all consultations with them.

In its 'Fact Sheet' in June 2023, the World Bank reported that it granted ESKOM $497 million as part of its Eskom Just Energy Transition Project (EJETP) to decommission the 56-year-old Komati coal-fired power plant on 31 October 2022; re-purpose the project area with renewable energy and batteries; and create opportunities for workers and communities in Mpumalanga. However, since the closure of Komati, remaining coal workers in Mpumalanga believed that they would not be needed if renewable energy becomes prominent (Nyathi, 2023). While there are generic promises to reskill workers, most are concerned that there is no training going on or doubted if they could be reskilled when their whole lives revolved around coal in the province (Nyathi, 2023).

Williams (2022) also observed that South Africa's electricity workers, i.e., NUMSA, have struggled to realize the vision of meeting universal needs, de-commodifying energy and providing an equitable dividend to communities and workers while decarbonizing the economy. Williams (2022) attributes this to electricity workers' setbacks and false starts due to a brutal recession, a fragmented labour

movement, and the temptation to defend coal jobs as unemployment hovers around 50 percent. In short, it can be hard to fight for a truly just transition in the face of austerity and privatization creep (Williams, 2022). This assertion is true but does not fully explain the state of NUMSA's campaign for socially owned renewable energy or a just transition. It can be added that the union's vision of a just energy transition has been in a state of inertia since 2014 as discussed above.

There is no evidence of NUMSA working with other concerned civil society and community-based organisations or refining its policies to accommodate varying decarbonisation threat levels of all the sectors it organises in since it expanded its scope. The emphasis on a state-owned renewable energy is also a sharp departure from the fight for sector made up of a mix of energy parastatals, cooperatives, municipal-owned entities, and other forms of community energy enterprises (NUMSA, 2012). David Hallowes (interview) indicates that as far back as 2017, GroundWork interviewed trade unionists who said that the union's resolutions to pursue a united front at local level has never really been followed up with and there had been no process led by NUMSA on just transition at local level. David Hallowes (interview) also speaks about Ground Work's efforts to form a relationship and work with the union proved futile as their requests for meetings were never responded to even when the general secretary had personally indicated that they would talk to the organisation. Ntlokotse (interview) was frank about the fact that there are no formal relationships with community-based organisations. Mbodi (interview) similarly had no examples of collaborative work with community-based organisations although he believed, without evidence, that communities in affected areas are talking about socially owned renewable energy because NUMSA mainstreamed the concept.

Where there are examples of NUMSA working with other organisations it seems ad hoc and incidental to NUMSA's historical ties and affiliation with international trade union federations like TUED or International Transport Workers Federation (i.e., ITF). Ntlokotse (interview) repeatedly referred to TUED as a contributor to the NUMSA's just transition policies. The LSO researcher (interview) mentioned that they have been involved in various interventions around the transition from coal where funders would require that NUMSA be involved in certain projects. I also interviewed a NUMSA researcher and ITF representative that was involved the roll out of a collaborative action research project called the Just Transition in Aviation - South Africa funded by the ITF. The NUMSA researcher (interview) explained that this was in line with the union's broader vision of organising workers in different sectors and responding to workers issues in the various industries. However, both senior NUMSA officials interviewed (i.e., Ntlokotse and Mbodi) were unable to provide such examples nor is there any form of publication of these just transition initiatives by the union on its website or other media platforms.

According to Ntokotse (interview) there is also a lack of unity within the union because certain leaders and shops stewards from sectors like ESKOM and coal would argue that issues of electricity and renewable energy are their areas, so they end up having more a say than representatives from other sectors. This situation can be attributable to lack of leadership and foresight since NUMSA organises in more than one sector. This malaise was inadvertently confirmed by fellow NUMSA official, Mbodi (interview). When asked if the union has sector specific policies and strategies for the just transition, his response was that NUMSA has one policy, there are no separate policies for different sectors or companies (Mbodi, interview).

6. Conclusion

Adopting a power resource approach to understanding NUMSA's opposition to renewable energy IPPs as a substitute for coal powered electricity provides a holistic view and useful framing to analyse how organised labour utilises its resources to campaign for a just transition. It shows how organised labour can wage the struggles of workers and the working class on multiple fronts without abandoning its core mandate and strength of collective action of workers. Incorporating documentary analysis provided a historical context of NUMSA's current position. This allowed for a focus on other substantive questions like the justification for continued opposition to IPPs while it is widely acknowledged that fossil fuels are to blame for frequent extreme weather events.

The union's position is partly explained by ideology and its commitment to a just transition as espoused by the ILO and adopted by the United Nations. Organised labour and civil society have been identified as key stakeholders that have to be consulted and included in the making of policy decisions that would affect vulnerable workers and communities in the process of adaptation and mitigation of climate change. The findings show that South Africa's move away from coal in favour of renewable energy is widely seen as unjust to workers and surrounding communities in Mpumalanga. These concerns were not limited to the country in 2023. The state of the energy transition was such that global stakeholders were grappling with core issues such as energy security, lack of consensus about the speed of the transition, and the differences between advanced and developing countries on macro- and socioeconomic priorities of the transition. These are legitimate concerns that have resulted in the call for more rigorous assessments and analysis accompany the implementation of renewable energy policies. These global developments give some form of credence to parts of NUMSA's opposition to the roll out of IPPs.

Without any congress resolution or evidence of statements that show that NUMSA is opposed to renewable energy in and of itself, I found that the union's failure to popularise it message and galvanise workers around the campaign for socially owned renewable energy lie at the executive leadership level. Having taken a centralised top-down approach, it seems that most NUMSA members are not fully aware or understand the issue of renewable energy and how it affects them. Despite having expanded its scope to organise workers across many sectors, the union does not have climate change policies tailored to the characteristics of the different industries.

The union deserves credit for highlighting the plight of the working class by consistently opposing the increases in electricity tariffs and mentioning the broad negative impact of IPPs on the economy of Mpumalanga. It is also using its own resources to make the most all the available democratic and constitutional avenues to influence (e.g., participation in PCC) and force (e.g., court cases)

government to implement its renewable energy policy in a manner that does not harm workers and the poor. However, there is no evidence that it is working with community-based organisations, or other civil society organisations, as strategic partners in building a mass movement to campaign for a just transition from coal.

The campaign for a just transition is no longer as inclusive of ordinary NUMSA members as when the policies were first adopted in 2012 with the current leadership subject to sharp criticism for centralising the union's policies and no longer investing in workers education or organising around the just transition from the ground up. As much as the union deserves credit for its' policies and endeavours to protect the interests of workers through various means, it is equally subject to one major criticism when it comes to the state of its struggle for a just transition from coal. I found that the union's active policies on coal and energy have reached a state of inertia and no longer entail organisation-wide vision to de-commodify electricity and preserve its public availability as a human right. Oft repeated statements about the just transition from coal are seen as fig-leaf to cover up the naked defence of the coal industry and the lack of a union led robust SORE campaign.

Ultimately, the union remains poised to be most likely have an impact on and be affected by the nation's trajectory to higher reliance on renewable sources of energy. The electricity crisis of 2022 and 2023 pushed the issue of renewable energy to the forefront of national dialogue as citizens demanded a solution and started to ask more questions about IPPs and closure of power stations. This presents an opportune moment for NUMSA and other trade unions in the sector to forge active alliances with environmentalists, local business, farmers, and communities for a mass movement to campaign for socially owned renewable energy and a just transition.

Future research should focus on and contribute to finding solutions to the conundrum of "how can the transition be just?". The readily available- and increasingly less disputed- empirical evidence of the harmful impact of climate change due to fossil fuel has opened space for more progressive discussions on the speed, mechanisms, and financing of the shift to a sustainable greener global economy.

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Appendix A: Participant Consent Form

Understanding the National Union of Metalworkers of South Africa's evolving policies on the role renewable energy in South Africa's mineral energy complex.

I, ……., agree to participate in the above-mentioned research project.

The purpose of the research has been explained to me and I understand that my participation in this project is completely voluntary and that I may withdraw and discontinue participation at any time without penalty.

I agree to the following: (Please circle the relevant options below).

The research study was explained to me. I understand what this study is about.	YES NO
I understand that I am volunteering to take part in this study and that I can withdraw and discontinue participating at any time without penalty.	YES NO
I agree that the interview may be audio recorded	YES NO
I agree that direct quotations from my interview may be used anonymously in the research report.	YES NO
I agree that my participation will remain anonymous (my name will not be used) in the research report	YES NO
I agree that the information I provide may be used anonymously for academic purposes, and by other researcher affiliated to this study.	YES NO

…… (signature of participant)

…… (name of participant)

…… (date and place)

…… (signature of researcher)

…… (name of researcher)

…… (date and place)

Appendix B: Information Sheet

PARTICIPANT INFORMATION SHEET

Understanding the National Union of Metalworkers of South Africa's evolving policies on the role renewable energy in South Africa's mineral energy complex.

Dear participant,

My name is Chere Monaisa. I am a master's student in the Global Labour University at the University of the Witwatersrand, Johannesburg. My supervisor is Associate Professor Devan Pillay.

The purpose of this research is to understand South African trade unions' response to issues of climate change and role renewable energy in the transition to a low-carbon economy
I am inviting you to take part in an interview. If you decide to take part, your participation in this research study will be in the form of an interview that will take about one hour to a maximum of 90 minutes. The interview can take place at a location and time/s that is convenient for you. It is also possible to conduct the interview online via MS Teams at a time that is convenient for you.

In recognition of the fact the issue of South African trade unions and, more specifically, NUMSA's policies on renewable energy is a contentious subject the interviews will be treated with the strictest of confidence. During the interview I will also for some professional information about you but the bulk of the questions will focus on NUMSA's policy on renewable energy in South Africa.

With your permission, I would like to audio record the interview. You can still participate in the research study even if you prefer not to be recorded. This data will be stored and backed-up electronically in an encrypted/password protected database under a coded pseudonym for one year, after which it will be destroyed.

When I share the results of the research study, I will not include your name or anything else that could identify you. With your permission, other researchers may use the data collected from this research study, but your name and any personal information will not be used or

passed on.

Your participation in this study is completely voluntary and you may withdraw your consent at any time during the research process. Furthermore, you will not be paid or compensated in any other way when you take part in this study. Overall, there are no foreseeable risks involved in participating in this research study.

This research study will be written up as a research report. The report will be available on the university library website. If you would like to receive a summary of this report, I will be happy to send it to you.

If you have any questions during or afterwards about this research study, feel free to contact me or my supervisor on the details listed below. If you have any concerns or complaints about the ethical procedures of this research study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0) 11 717 1408, email hrecnon-medical@wits.ac.za.

Thank you for taking the time to participate in this study.

Yours sincerely,

Chere Monaisa

Researcher: Chere Monaisa, chere@ditsela.org.za, + 27 84 698 9140

Supervisor: Associate Prof Devan Pillay, devan.pillay@wits.ac.za, + 27 11 717 442

Appendix C: Ethics Clearance Certificate

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

GLOBAL LABOUR UNIVERSITY ETHICS COMMITTEE
CONSTITUTED UNDER THE UNIVERSITY HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)

CLEARANCE CERTIFICATE	**PROTOCOL NUMBER: GLU-2022-01**
PROJECT TITLE	Understanding the National Union of Metalworkers of South Africa's evolving policies on the role of renewable energy in South Africa's mineral energy complex.
INVESTIGATOR	Mr Chere Monaisa
SCHOOL/DEPARTMENT OF INVESTIGATOR	Global Labour University, School of Social Sciences
DATE CONSIDERED	22 June 2022
DECISION OF THE COMMITTEE	Approved unconditionally
RISK LEVEL	MINIMAL RISK
EXPIRY DATE	21 June 2023
ISSUE DATE OF CERTIFICATE 29 June 2022	**CO-CHAIRPERSON** Ben Scully (Dr Ben Scully)

cc: Supervisor: Associate Professor Devan Pillay

DECLARATION OF INVESTIGATOR

To be completed in duplicate and **ONE COPY** returned to the Chairperson of the School/Department ethics committee.

I fully understand the conditions under which I am are authorized to carry out the abovementioned research and I guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee.

_____ **Signature**

_____/_____/_____ **Date**

Appendix D: Interview Schedule Guidelines

Background Information

1. What role, if any, have you had in NUMSA? OR
2. How long have you been involved in NUMSA's climate change/energy transition work- directly or indirectly? **Elaborate**.

View on just transition/climate change agenda

1. What do you see as NUMSA's position on the just transition and how, in your opinion, has it changed over time? Elaborate.
2. What informed the union's 2012 Socially Owned Renewable Energy policies?
3. How did NUMSA come to this position, in your view?
4. What are the strengths and weaknesses of this position in your view?
5. Do you think that NUMSA's position on South Africa's climate change priorities has evolved over the years? Please elaborate. **(Probe further with examples/reference to Eskom & resistance to IPP and green energy)**

Understanding NUMSA's current actions and policies

1. At the 2012 National Congress, NUMSA resolved that: *"That NUMSA will engage with strategies that exist to save electricity with the aim of reducing pressure on the grid and ensuring a cleaner environment*". What motivated the union to currently oppose IPPs as part renewable energy solutions to reducing pressure on the grid?

2. What do you think explains this shift? ***(Probe with questions about leaving COSATU, formation of United Front and their impact on something like climate change policies)***
3. Have you heard of the concept of 'carbon lock-in'? To what extent does the notion of a carbon lock-in explain the apparent reluctance of unions to promote a just transition to renewable energy? ***(Probe with more questions by referring to current affairs)***

4. Would you say NUMSA, and other unions, is genuinely raising workers' concerns in their current opposition to IPPs role in renewable energy? **(Probe carefully OR bluntly depending on circumstances of interviewee if NUMSA is not acting on behalf of other interested parties in the coal value chain, e.g., coal lobby)**

5. As far as the notion of the carbon lock-in can be used to explain the apparent reluctance of unions to promote a just transition to renewable energy, what incentives do you think are available to galvanise social forces, particularly unions like NUMSA, to support the possibility of a just transition in South Africa again?