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Editorial Note

This is a brief introduction to a timely and intellectually relevant conversation in this AYIKA publication. It centres on ten articles that cover unique aspects of development challenges in Africa, with particular attention to South Africa and Nigeria. These contributions, taken together, not only identify persistent challenges in environmental protection and economic growth but also advance policy recommendations in response to Africa's changing circumstances across various fronts. To be clear, the needs of Africa are multifaceted and interconnected in several ways; the challenges are similar across the board, although the manifestations may differ geographically. These articles address the connections in the needs and choices of Africa while projecting a better future. Motswaledi's article illuminates this in this volume, concluding that equitable and inclusive energy provision should be prioritised as a fundamental social justice intervention to redress historical inequalities, promote human dignity, and advance socio-economic transformation in post-apartheid South Africa. Such insight applies to all of Africa.

Collectively, these contributions demonstrate that Africa's development challenges cannot be understood in isolated compartments. Governance affects environmental management; energy affects social justice; infrastructure affects economic growth, etc. The major strength of this collection is therefore its interdisciplinary character. It brings together governance, economics, environmental studies, development studies, public policy, agriculture and social justice. More importantly, the articles consistently return to a central question: how can African societies build institutions and development pathways that improve human welfare without undermining the environmental and social foundations of the future? This collection does not claim to offer simple answers. Instead, it provides evidence, cases and critical perspectives that can help scholars, policymakers and practitioners ask better questions. New and better research questions are a right way in the right direction.

Managing Editor

Prof. Kayode EEsuola

Institute of African and Diaspora Studies.

University of Lagos, Nigeria

oeesuola@unilag.edu.ng

Editor

Dr. Bamidele Olajide

Department of Political Science

University of Lagos, Nigeria

contactdele@gmail.com

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CRITICAL ANALYSIS OF ENERGY PROVISION AS AN INSTRUMENT FOR ADVANCING SOCIAL JUSTICE

Thabang R. Motswaledi

Department of Political Studies and International Relations,
School of Government Studies, North West University,
South Africa

ThabangTRMotswaledi@gmail.com

ORCID ID: <https://orcid.org/0000-0002-3484-1815>

Abstract

The institutionalisation of the Bantu laws under apartheid was designed to enforce racial segregation and sustain a system of political, economic, and social domination in South Africa. These laws systematically restricted Black South Africans' access to essential resources and services, including education, healthcare, housing, and economic opportunities, thereby entrenching structural inequalities that continue to shape contemporary society. One of the less explored yet significant manifestations of this historical injustice is inequality in energy provision. The forced relocation of Black communities to townships and rural areas not only constrained socio-economic development but also created enduring disparities in access to reliable and affordable energy. Against this backdrop, this study conceptualises energy provision as a critical instrument of social justice capable of addressing the historical legacies of colonialism and apartheid. In contemporary South Africa, access to energy is indispensable for livelihoods, economic participation, education, healthcare, and overall human well-being. Persistent energy deprivation has, in some instances, compelled communities to engage in illegal electricity connections, reflecting the severity of energy insecurity and exclusion. The study adopts a qualitative research approach to examine the relationship between energy provision and social justice in South Africa. The findings indicate that patterns of energy inequality continue to reflect the enduring legacy of discriminatory apartheid policies, disproportionately affecting historically marginalised communities. The study concludes that equitable and inclusive energy provision should be prioritised as a fundamental social justice intervention to redress historical inequalities, promote human dignity, and advance socio-economic transformation in post-apartheid South Africa.

Keywords: *Energy provision, social injustice, racial energy access, South Africa, and segregation,*

1. Introduction

In the twenty-first century, access to reliable, affordable, and sustainable energy has become a cornerstone of socio-economic development and human well-being. Energy underpins virtually every aspect of modern society, from household livelihoods to industrial production, making it one of the most strategic resources for both states and communities. As global development agendas increasingly emphasise inclusive and sustainable development, universal access to energy has emerged as a prerequisite for economic growth, poverty reduction, improved public services, and social justice.

Energy exists in various forms, including chemical, nuclear, electrical, radiant, thermal, mechanical, and sound energy (Kostic, 2007). This study focuses specifically on electrical energy because of its central role in supporting contemporary social and economic activities. At the household level, electricity enables essential services such as lighting, cooking, heating, refrigeration, communication, education, and healthcare. From an economic perspective, electricity is indispensable for industrialisation, technological innovation, employment creation, investment, and economic competitiveness. Consequently, inadequate or unreliable electricity provision constrains development and reinforces poverty, inequality, and social exclusion.

The inability to ensure reliable electricity supply constitutes a form of

energy insecurity, characterised by the inability of households, communities, and states to access stable, affordable, and sufficient energy services (Shoki, 2023). Energy insecurity has far-reaching consequences, including reduced economic productivity, declining investment, business closures, job losses, and deteriorating living conditions. It also limits access to fundamental social services such as education, healthcare, housing, and digital connectivity, thereby undermining broader human development. In this regard, energy deprivation should not merely be understood as an economic or technical challenge but also as a social justice issue that perpetuates structural inequalities.

South Africa presents a compelling case for examining the relationship between energy provision and social justice. Since the introduction of load shedding in 2008, the country has experienced persistent electricity shortages that have disrupted economic activity, weakened industrial productivity, constrained service delivery, and negatively affected household livelihoods. Load shedding, which refers to the deliberate and temporary interruption of electricity supply to prevent the collapse of the national power grid, has become one of the defining characteristics of South Africa's contemporary energy crisis.

The country's electricity challenges have also exposed significant governance weaknesses within Eskom,

the state-owned enterprise responsible for generating and transmitting most of South Africa's electricity. While state-owned enterprises are generally expected to promote economic growth, social development, and environmental sustainability (Hopkins, 2012), Eskom has struggled to fulfil this developmental mandate. Persistent operational failures, ageing infrastructure, governance challenges, and financial instability have contributed to recurring electricity shortages, thereby constraining national development and negatively affecting both public and private sector performance.

Although South Africa's current electricity crisis affects all sectors of society, its impacts are neither spatially nor socially uniform. Rather, they are deeply rooted in the country's history of colonialism and apartheid. Apartheid legislation, particularly the Bantu laws, institutionalised racial segregation and systematically denied Black South Africans equitable access to land, education, employment, housing, and public infrastructure. Legislation such as the Bantu Education Act, the Bantu Authorities Act, the Bantu Trust and Land Act, and the Bantu Labour Act entrenched racial inequalities by determining where people could live, work, and access public services. These policies produced highly unequal spatial patterns of development that continue to influence the distribution of infrastructure and public resources, including electricity.

2. Literature

The apartheid system deliberately located Black communities in underdeveloped townships, rural homelands, and peripheral settlements characterised by inadequate infrastructure and limited public investment. Although South Africa has made significant progress in expanding electricity access since 1994, historical patterns of spatial inequality continue to shape disparities in electricity reliability and quality of service. Consequently, energy inequality should be understood not only as a contemporary governance challenge but also as an enduring consequence of institutionalised racial segregation.

Motswaledi and Motloun (2025) argue that apartheid spatial planning continues to influence patterns of settlement and service delivery, with Black townships remaining geographically separated from historically White urban centres. Similarly, Motswaledi (2023) observes that Coloured communities are often located in separate residential areas situated between historically White suburbs and Black townships, reflecting the enduring spatial hierarchy established under apartheid. These spatial arrangements continue to influence infrastructure investment and electricity provision. Consequently, historically Black townships frequently experience poorer electricity infrastructure, prolonged power interruptions, and targeted load reduction measures compared to historically White suburbs, while Coloured and Indian

communities often occupy an intermediate position. Maggot et al. (2022) further argue that South African townships are disproportionately affected by energy racism through the implementation of load reduction policies, thereby reinforcing historical patterns of exclusion and unequal access to energy services.

Against this background, this study conceptualises electricity provision as a fundamental component of social justice. It argues that equitable access to reliable electricity is not merely a

developmental objective but a constitutional and moral imperative necessary for addressing the historical injustices of apartheid. By examining electricity provision through the lens of social justice, the study seeks to demonstrate how unequal energy access continues to reproduce historical inequalities and to explore how equitable energy governance can contribute to inclusive development, human dignity, and socio-economic transformation in post-apartheid South Africa.

Energy Justice and the Racialised Distribution of Electricity in South Africa.

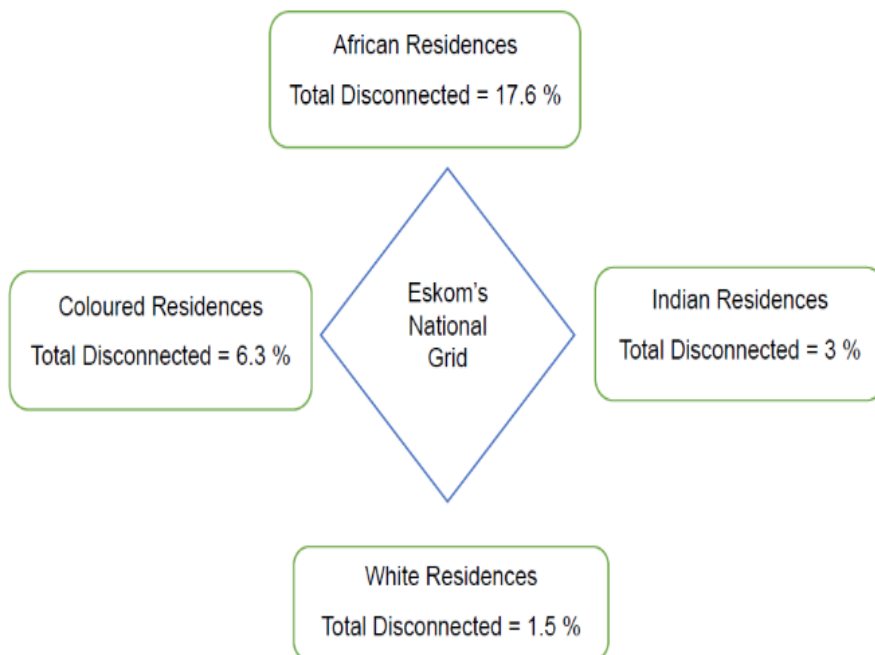


Figure 1.1: A racialised quadrant of energy supply in South Africa (Adapted from Motswaledi, 2023)

Figure 1.1 depicts a racialised or othered quadrant of energy supply in South Africa. The groups presented are the dominant races found in South Africa. From this premise of the racialised quadrant, about 17.6% of Black residents are not connected to the power grid and are the majority regarding race (Roy, 2021). This was followed by Coloureds (6.3%) as the second largest group not connected to the power grid. Third are the Indian residencies, with about 3% not connected to the power grid. Finally, only 1.5% of White residences are not connected to the grid, even though they are the minority (Roy, 2021). This indicates that there are vast differences in terms of the connections confirmed on the grid, while the majority of Blacks and Coloureds are the ones being marginalised from the electrical grid as alluded by Motswaledi (2023). Eskom implements rolling load reduction interventions in Black townships the most, where power cuts could last for months, something that does not happen in towns. Load reduction is the step taken by a power utility to switch off electricity in areas where illegal connections are causing overload to the grid, so that they can prevent damage to the infrastructure (Motswaledi, 2023). There is a perception that people in Black townships are connected illegally to the grid (bridging electric meters), hence the prevalence of rolling load reduction in those areas (Maggot et al., 2022). Load reduction in Black townships could be an instrument of collective punishment/discipline,

although not everyone there is connected illegally to the grid. This inability to isolate customers who cheat the system without negatively affecting law-abiding customers is another hindrance to SOEs' efficiency in service delivery. Maggot et al. (2022) further depict that Eskom and government leaders are still using townships and squatter settlements as a scapegoat, labelling them as the root cause of the energy crisis in the country. Illegal connections, non-payment of bills, and cable theft are reported to be a culture in Black communities such as Soweto. Hence, the municipality and Eskom leaders have coined the phrase 'Soweto Eskom debt' to emphasise the community's stubborn culture of non-payment. Maggot et al., (2022) view such an assertion as a pure intention to segregate Blacks and Whites and, therefore, may be attributed to having racial sentiments and advancing racialised energy poverty.

The apartheid legacy of segregation was direct and intentional in the energy access of people as part of the basic services provided by the government. This segregation specifically targeted the rural and township communities that were mainly black-oriented. Hence, the 1994 and post policies were also specific to redressing inequalities, but energy injustices persist. Persistent energy inequality continues to reinforce socio-economic divides. On the other hand, energy theft and protests reveal growing frustration among marginalized groups.

3. Methodology

This study adopted a qualitative research approach to examine energy provision as an imperative resource for achieving social justice in South Africa. A qualitative approach was considered appropriate because it facilitates an in-depth understanding of complex social phenomena, historical processes, and policy issues by exploring meanings, interpretations, and relationships rather than quantifying variables. Given that the study seeks to understand the historical and contemporary links between energy provision, apartheid legacies, and social justice, a qualitative methodology provides the necessary flexibility to critically interpret existing knowledge and identify emerging themes.

The study employed an exploratory research design to investigate the relationship between energy provision and social justice. An exploratory design is particularly suitable where existing scholarship remains fragmented or insufficiently developed, allowing the researcher to generate new insights and develop a comprehensive understanding of the phenomenon under investigation. In this study, the design facilitated a critical examination of how historical racial segregation continues to shape contemporary patterns of energy access and distribution.

Data were collected through a systematic document analysis of secondary sources. Document analysis was selected because it enables the rigorous examination and

interpretation of existing documentary evidence relevant to the research problem. The study analysed a wide range of scholarly and policy documents, including peer-reviewed journal articles, academic books, government reports, policy documents, legislation, and reports published by national and international organisations. These documents were retrieved from recognised academic databases and search platforms, including Sabinet, Google Scholar, ResearchGate, and other open-access repositories.

The selection of documents followed a purposive sampling strategy. Literature published between 1768 and 2025 was intentionally included to capture both foundational theoretical works on governance, society, and justice, as well as contemporary scholarship on energy justice, energy poverty, energy security, and electricity provision. Documents were selected based on their relevance to the study's objectives and their contribution to understanding the historical evolution and contemporary dynamics of energy provision and social justice in South Africa.

A systematic keyword search was conducted using terms such as energy provision, energy justice, social justice, energy poverty, energy insecurity, racial inequality, racial energy access, energy segregation, apartheid spatial planning, and electricity access. Additional relevant sources were identified through reference-list screening of key

publications to ensure comprehensive coverage of the literature.

The collected documents were analysed using thematic document analysis. This involved repeatedly reading the selected literature, coding recurring concepts, identifying patterns, and organising the findings into themes relating to historical inequality, apartheid spatial planning, energy insecurity, racial disparities in electricity access, and the role of equitable energy provision in advancing social justice. The thematic analysis enabled the synthesis of diverse perspectives and provided a coherent interpretation of the relationship between energy provision and social justice within the South African context.

4. Civil Society Theory

Civil Society Theory provides a valuable analytical framework for understanding the relationship between citizens, the state, and public institutions in addressing complex societal challenges such as energy poverty and unequal access to electricity. Although the origins of civil society can be traced to classical political philosophy, the concept gained renewed prominence during the 1980s through debates on democratisation, governance, accountability, and participatory development. One of the earliest proponents of the concept was Adam Ferguson, who viewed civil society as a sphere in which citizens collectively pursue the common good through voluntary associations and civic

engagement (Ferguson, 1768). Contemporary scholarship, however, conceptualises civil society as an autonomous sphere situated between the state and the market, encompassing non-governmental organisations, community-based organisations, labour unions, religious institutions, advocacy groups, social movements, and individual citizens (Fine, 2014).

Civil Society Theory argues that democratic governance is strengthened when citizens actively participate in public affairs and hold governments accountable for fulfilling their constitutional and developmental obligations. Rather than replacing the state, civil society complements democratic institutions by promoting public participation, advocating for social justice, monitoring public institutions, influencing public policy, and ensuring transparency and accountability in governance processes (Fine, 2014; Klein & Lee, 2019). The theory therefore recognises civil society as an essential mechanism through which citizens influence decision-making and protect the public interest.

Within the context of this study, Civil Society Theory provides a useful lens for examining how citizens and civil society organisations shape energy governance in South Africa, particularly regarding the governance and performance of state-owned enterprises such as Eskom. Access to electricity is not merely a technical or economic issue but a fundamental social justice concern that influences education, healthcare, employment,

economic participation, and overall human security. Consequently, unequal access to electricity reflects broader structural inequalities that require both effective state intervention and active civic participation. Civil society organisations play a critical role in articulating community concerns, advocating for equitable and affordable electricity, monitoring the performance of public institutions, and facilitating dialogue between communities and policymakers.

The theory is particularly relevant in explaining accountability within state-owned enterprises. As South Africa's primary electricity utility, Eskom is entrusted with managing a strategic public resource and therefore bears a constitutional and developmental responsibility to provide electricity that is reliable, affordable, accessible, and sustainable. Civil Society Theory contends that citizens have the democratic right to scrutinise the performance of public institutions and demand accountability where governance failures undermine public welfare. Through public participation, advocacy, litigation, social mobilisation, and policy engagement, civil society contributes to improving institutional transparency, strengthening governance, and encouraging reforms aimed at enhancing service delivery and reducing inequalities associated with energy poverty.

Civil society also serves as an important channel through which the lived experiences of energy-poor

communities are incorporated into policy processes. Communities affected by electricity shortages and unreliable energy supply provide valuable evidence regarding the social, economic, and developmental consequences of energy insecurity. These experiences can inform policy reforms by highlighting disparities in energy access, the disproportionate burden borne by historically marginalised communities, and the need for more equitable approaches to electricity distribution. In this regard, civil society organisations contribute not only through advocacy but also through research, public education, strategic litigation, and participation in legislative and policy consultations, thereby promoting more inclusive and responsive energy governance.

The South African context illustrates the practical relevance of Civil Society Theory. Civil society organisations have increasingly challenged government and Eskom regarding electricity governance, particularly the implementation of load reduction measures that disproportionately affect historically disadvantaged communities. For example, public advocacy and submissions during the South African Human Rights Commission's inquiry into the impact of load reduction highlighted concerns that these measures reinforced historical spatial and racial inequalities in electricity access. Such civic engagement encouraged greater public scrutiny of government policy and prompted discussions on the fairness, transparency, and socio-economic

implications of electricity distribution. These developments demonstrate how civil society functions as an accountability mechanism capable of influencing public institutions and promoting more equitable energy governance.

Accordingly, Civil Society Theory provides an appropriate framework for this study because it explains how interactions between citizens, civil society organisations, government, and state-owned enterprises shape energy governance in South Africa. More importantly, the theory advances the central argument of this study that equitable electricity provision is not solely a technical or administrative responsibility but also a matter of democratic governance and social justice. By emphasising participation, accountability, and citizen oversight, Civil Society Theory offers a robust framework for analysing how inclusive governance can contribute to reducing energy poverty, addressing historical inequalities, promoting human security, and advancing social justice in post-apartheid South Africa.

5. Discussions of Findings on Energy as an Imperative Resource to Social Justice

South Africa's energy sector has undergone several phases of transformation and crisis, each of which has shaped contemporary debates on energy governance and social justice. According to Kamanzi (2020), the country's electricity sector has been characterised by persistent structural challenges, including the

introduction of load shedding in 2008, the discontinuation of the proposed nuclear energy expansion programme, and the implementation of load reduction measures that have disproportionately affected informal settlements and historically disadvantaged townships. These developments illustrate that South Africa's energy crisis extends beyond technical failures and electricity shortages; it reflects broader governance, developmental, and social justice challenges that continue to reproduce historical inequalities.

The country's energy challenges have also accelerated discussions regarding the transition towards renewable energy. International climate initiatives, particularly the Conference of the Parties (COP) process, have encouraged countries to reduce greenhouse gas emissions and transition towards cleaner and more sustainable energy systems. Within this context, South Africa became one of the first developing countries selected to implement the Just Energy Transition Partnership (JETP), which seeks to support a transition from coal-dependent electricity generation to a low-carbon energy system while simultaneously promoting social inclusion, economic development, and environmental sustainability (Kamanzi, 2020). The significance of the JETP extends beyond climate change mitigation, as it also seeks to ensure that vulnerable workers and communities are not disadvantaged during the transition towards renewable energy.

From a social justice perspective, however, the success of the Just Energy Transition should not be measured solely by reductions in carbon emissions or the expansion of renewable energy technologies. Rather, its effectiveness depends on whether it addresses the historical inequalities that continue to shape access to electricity in South Africa. If renewable energy policies primarily benefit affluent communities while historically disadvantaged communities continue to experience unreliable electricity supply, energy poverty, and inadequate infrastructure, the transition risks reproducing rather than reducing existing inequalities. Consequently, a truly just energy transition requires that equity, affordability, accessibility, and social inclusion remain central principles of energy policy.

Technological innovation associated with the energy transition also presents opportunities to improve electricity governance. Advances in smart metering, digital monitoring systems, and intelligent electricity distribution networks can enable utilities to identify illegal electricity connections, improve billing efficiency, reduce technical losses, and strengthen revenue collection. Such technologies may reduce the need for blanket load reduction strategies that often affect entire communities regardless of individual compliance. More targeted and efficient electricity management has the potential to improve service delivery while reducing the

disproportionate burden placed on historically marginalised communities. Nevertheless, technological advancement alone cannot resolve South Africa's energy challenges. Killander (2025) argues that the country's energy future must be understood within the broader context of climate change, socio-economic inequality, and energy availability. These interconnected challenges may undermine the objectives of the Just Energy Transition if policy interventions fail to prioritise vulnerable households and communities. In highly unequal societies such as South Africa, unequal access to electricity may intensify social exclusion, deepen poverty, and increase the likelihood of illegal electricity connections as households seek to meet basic energy needs.

The governance model adopted during the energy transition also has important implications for social justice. Excessive reliance on market-driven or privatised electricity systems may improve efficiency but simultaneously reduce affordability and accessibility for low-income households if profitability becomes the primary objective. Where electricity is treated predominantly as a commercial commodity rather than a public good, vulnerable communities are likely to experience greater exclusion from essential energy services. Such an approach contradicts the principles of social justice because it prioritises market interests over the fulfilment of basic human needs.

The relationship between electricity access and development further reinforces the central argument of this study. Shoki (2023) demonstrates that South Africa's electricity crisis continues to constrain economic growth, industrial development, employment creation, and overall social welfare. Reliable electricity is indispensable for education, healthcare, communication, entrepreneurship, and productive economic activity. Consequently, inadequate electricity provision not only limits economic opportunities but also undermines human dignity, reinforces structural inequality, and weakens human security. These findings support the argument that electricity should be regarded as a fundamental developmental resource rather than merely a commercial service.

The concept of energy poverty provides additional insight into the relationship between electricity provision and social justice. Sunderland and Segura (2022) define energy poverty as the inability of households to have access to reliable, affordable, secure, and sufficient energy to meet basic domestic needs, including cooking, heating, cooling, and lighting. Similarly, the European Commission (2022) argues that energy poverty deprives households of the essential energy services required to maintain acceptable standards of health, well-being, and quality of life. These perspectives demonstrate that energy poverty extends beyond the absence of electricity; it reflects a

broader condition of vulnerability that restricts social participation, educational attainment, economic productivity, and public health.

Within the South African context, energy poverty remains closely linked to the historical legacy of apartheid spatial planning and unequal infrastructure development. Communities located in townships, informal settlements, and rural areas continue to experience higher levels of electricity insecurity, more frequent service interruptions, and limited infrastructure investment compared to historically advantaged urban areas. These disparities suggest that contemporary patterns of energy provision continue to mirror historical racial and spatial inequalities, thereby reinforcing social injustice despite the country's democratic transition.

Viewed through the lens of Civil Society Theory, these findings further demonstrate the importance of participatory and accountable energy governance. Civil society organisations, community structures, and affected citizens play an essential role in advocating for equitable electricity provision, monitoring the performance of public institutions, and ensuring that energy policies respond to the needs of vulnerable communities. The growing public scrutiny of load reduction policies, electricity tariffs, and the implementation of the Just Energy Transition illustrates the importance of civic participation in promoting transparency, accountability, and

fairness within South Africa's energy sector.

The evidence suggests that electricity provision should not be viewed merely as a technical challenge of balancing supply and demand. Rather, it represents a fundamental question of social justice, democratic governance, and inclusive development. Achieving energy justice therefore requires policies that simultaneously expand reliable electricity access, address historical inequalities, strengthen

public accountability, and ensure that the transition towards sustainable energy benefits all South Africans rather than reinforcing existing patterns of exclusion. Below is the framework adopted from Bouzarovski and Petrova (2015:37) on the global indicators of energy poverty. However, this framework was revised based on the South African concept of what energy poverty is or how it is conceptualised

Table 1.1. The Framework on energy poverty in contemporary age adopted from Bouzarovski and Petrova (2015).

Factor	Critical Pervasive threat	Impact to Energy Provision
Availability	The threat of JET with the idea that all South Africans' have access to clean energy and load shedding/ reduction depict that they have been experiencing low energy availability especially from 2019 to 2022 with the highest hours of no energy along the years. While others areas do not have energy at all.	The impact of availability is seen with areas within human settlements and townships still relying heavily on fossil fuels due to no connection, load shedding or reduction.
Affordability	Mainly related to funding in the household and energy is in most cases not part of essentials.	Experience energy poverty and the funds for other essentials in in turn used for energy related costs, especially during winter.
Accessibility	The availability of the product based on the infrastructure, but this is mainly at urban areas where townships and informal settlements are neglected.	This exacerbates the challenge of energy poverty and leads to less socio-economic or health related issues due to reliance on fossil fuels.
Security of supply	The security of supply during some days in challenges with infrastructural challenges where Eskom cited wet coal, unit's breakdown and sabotage.	This affects productivity of companies especially at rural areas as they suffered both load shedding and reduction.
Retrospective spatial planning	The past challenges of spatial planning have neglected some segment and let to some injustice more effectively than they explain long-term societal change.	Development is a challenge due to historical planning that leads to exclusive development, and structural transformation.

The analytical framework demonstrates that energy provision in South Africa extends beyond the technical generation and distribution of electricity. Instead, it illustrates that the quality of energy provision is determined by several interrelated dimensions, namely availability, affordability, accessibility, security of supply, and the enduring effects of apartheid spatial planning. Together,

these dimensions illustrate how deficiencies in electricity provision reinforce energy poverty and social injustice, thereby limiting socio-economic development and human security.

Availability

Availability refers to the extent to which electricity is consistently available to households, businesses,

and public institutions. The findings indicate that electricity availability remains one of South Africa's most pressing challenges. Although the Just Energy Transition (JET) seeks to expand access to cleaner and more sustainable energy sources, recurring load shedding and load reduction between 2019 and 2022 significantly reduced the availability of electricity across the country. Furthermore, some rural communities and informal settlements remain without formal electricity connections, highlighting persistent inequalities in service delivery.

The limited availability of electricity has compelled many households, particularly those located in townships and informal settlements, to rely on alternative energy sources such as coal, paraffin, firewood, and gas. While these alternatives provide temporary relief, they expose households to significant health risks, environmental degradation, and higher long-term household costs. Consequently, inadequate energy availability perpetuates energy poverty and undermines the constitutional objective of equitable access to basic services.

Affordability

Affordability represents another critical dimension of energy justice. Even where electricity infrastructure exists, many households cannot afford sufficient electricity to meet their daily needs. Rising electricity tariffs, declining household incomes, and increasing unemployment have made

electricity an increasingly unaffordable public service for vulnerable communities.

The findings suggest that low-income households frequently divert resources from other basic necessities, including food, healthcare, and education, in order to purchase electricity, particularly during the winter months when energy demand increases. This illustrates that energy poverty is not simply the absence of electricity but also the inability to consume adequate electricity because of financial constraints. Affordable electricity therefore remains essential for promoting social justice and reducing multidimensional poverty.

Accessibility

Accessibility refers to the ability of communities to obtain electricity through adequate infrastructure and effective service delivery. Although South Africa has made significant progress in expanding electrification since 1994, considerable disparities remain between urban centres and historically disadvantaged townships, informal settlements, and rural communities.

These disparities reflect the continued influence of apartheid spatial planning, which concentrated infrastructure investment in historically White urban areas while neglecting Black residential areas. Poor electricity infrastructure limits educational opportunities, healthcare delivery, digital participation, and economic activity. Consequently, unequal accessibility reinforces structural

inequalities and constrains inclusive socio-economic development.

Security of Supply

Security of supply concerns the reliability and continuity of electricity provision. South Africa has experienced persistent electricity supply disruptions arising from ageing infrastructure, generating unit failures, maintenance backlogs, coal quality challenges, vandalism, cable theft, and governance failures within Eskom.

These disruptions have significant developmental implications. Businesses experience production losses, schools and healthcare facilities face operational challenges, and households incur additional costs through the purchase of generators, solar systems, batteries, or alternative fuels. Rural communities are often disproportionately affected because they experience both scheduled load shedding and load reduction, further widening existing socio-economic inequalities. Reliable electricity supply is therefore fundamental to sustainable economic development and human security.

Retrospective Spatial Planning

Perhaps the most significant dimension of the framework is the enduring influence of apartheid spatial planning. Historical policies deliberately excluded Black communities from infrastructure investment and concentrated economic development within historically White urban centres. Although democratic South Africa has expanded electricity access,

many of these structural inequalities remain evident in the contemporary distribution of electricity infrastructure and service quality.

The findings demonstrate that historical spatial inequalities continue to shape patterns of energy provision. Townships, informal settlements, and many rural communities continue to experience poorer electricity infrastructure, delayed maintenance, frequent service interruptions, and targeted load reduction. These patterns suggest that current energy inequalities cannot be understood solely as technical or governance failures but must also be interpreted as manifestations of historical injustice. Consequently, achieving energy justice requires more than expanding electricity generation; it requires addressing the structural legacies of apartheid through equitable infrastructure investment and inclusive development.

Implications for Social Justice and Civil Society Theory

Collectively, the five dimensions of the framework demonstrate that energy provision is multidimensional and closely linked to social justice. Electricity availability, affordability, accessibility, and security of supply are mutually reinforcing, while historical spatial planning continues to influence each of these dimensions. The framework therefore supports the argument that unequal electricity provision reproduces historical patterns of exclusion and contributes to persistent energy poverty.

From the perspective of Civil Society Theory, these findings highlight the importance of citizen participation and public accountability in energy governance. Civil society organisations, local communities, and advocacy groups have an essential role in ensuring that government and Eskom address inequalities in electricity provision, improve infrastructure investment, and promote equitable service delivery. Through public participation, policy advocacy, litigation, and community mobilisation, civil society can contribute to a more inclusive energy system that prioritises human dignity, equitable development, and social justice.

The framework demonstrates that electricity should be understood not merely as a public utility but as a fundamental developmental resource and a prerequisite for achieving social justice. Addressing energy poverty therefore requires integrated policies that improve electricity availability, affordability, accessibility, and security while simultaneously confronting the historical spatial inequalities that continue to shape South Africa's energy landscape.

Energy as a Catalyst of Development

State-Owned Enterprises (SOEs) remain fundamental instruments for promoting socio-economic development, infrastructure provision, and public service delivery. The Organisation for Economic Co-operation and Development (OECD, 2005) defines SOEs as enterprises in

which the state exercises significant control through full, majority, or substantial minority ownership. Globally, countries such as China have demonstrated how strategically managed SOEs can drive industrialisation, technological innovation, economic growth, and national development. Jones and Zou (2017) argue that SOEs have been instrumental in advancing China's economic expansion and global competitiveness, while more recent scholarship recognises SOEs as increasingly important actors in supporting broader state developmental and strategic objectives (Landoni, 2020; Miles, 2019).

In contrast, the South African experience demonstrates that weak governance and operational inefficiencies within SOEs have constrained their developmental role. Rather than serving as engines of economic growth, several SOEs have experienced persistent financial instability, governance failures, and declining institutional performance. Government interventions through repeated financial bailouts and restructuring initiatives involving entities such as South African Airways, Transnet, and Eskom illustrate the extent to which institutional weaknesses have undermined the state's developmental agenda. These challenges have reduced the ability of SOEs to contribute effectively to economic transformation and public service delivery.

The findings further indicate that Eskom's operational challenges have

had profound implications for electricity provision and social justice. Persistent load shedding, ageing infrastructure, maintenance backlogs, governance failures, and corruption have significantly reduced the reliability of electricity supply. Consequently, Eskom has been unable to fulfil its developmental mandate of providing reliable, affordable, and accessible electricity to all South Africans. These governance failures have contributed directly to rising levels of energy poverty, constrained economic productivity, weakened public confidence in state institutions, and undermined socio-economic development.

The study also finds that contemporary patterns of electricity access continue to reflect historical inequalities established during apartheid. Although South Africa has achieved substantial progress in expanding electricity access since 1994, significant disparities remain between urban and rural communities. National electrification levels indicate that approximately 98% of urban households have access to electricity compared with approximately 83% of rural households (Yeboua, 2026). These disparities are largely attributable to historical underinvestment in electricity infrastructure within rural areas, informal settlements, and townships. As a result, communities that were historically marginalised under apartheid continue to experience inadequate infrastructure, unreliable

electricity supply, and greater vulnerability to energy poverty.

These findings suggest that contemporary energy inequality cannot be explained solely by current governance failures but should also be understood as a continuation of historical spatial and socio-economic inequalities. The persistence of inadequate infrastructure investment in historically disadvantaged communities indicates that the legacy of apartheid spatial planning continues to shape patterns of electricity provision. Consequently, unequal access to electricity represents both a developmental challenge and a social justice concern.

The findings further reveal that the ongoing transition towards renewable energy presents both opportunities and risks for achieving equitable energy access. While the expansion of renewable energy through Independent Power Producers (IPPs) has increased investment in clean energy generation, access to these technologies remains unevenly distributed. Solar photovoltaic (PV) installations are concentrated predominantly within wealthier urban provinces such as Gauteng and the Western Cape, where households and businesses possess the financial capacity to invest in alternative energy systems. In contrast, many rural communities, informal settlements, and low-income households remain dependent on Eskom's increasingly unreliable electricity supply or continue to rely on traditional energy sources.

This uneven transition raises important questions regarding equity and distributive justice. The findings suggest that access to renewable energy is increasingly determined by household income, geographical location, and investment capacity rather than by universal developmental objectives. Consequently, there is a risk that the energy transition may unintentionally widen existing socio-economic inequalities if policy interventions do not explicitly prioritise historically disadvantaged communities. Without targeted public investment and inclusive energy policies, renewable energy may become another mechanism through which existing inequalities are reproduced.

The findings of the paper demonstrate that electricity provision should be understood as a fundamental component of social justice rather than merely a technical public service. Equitable energy provision requires not only improved electricity generation but also institutional reform, accountable governance, inclusive infrastructure investment, and policies that prioritise historically marginalised communities. The evidence further suggests that strengthening Eskom's governance, expanding infrastructure investment in underserved communities, promoting community-based renewable energy initiatives, and enhancing affordability through targeted subsidies for indigent households would contribute significantly towards reducing energy

poverty and advancing social justice in South Africa.

6. Conclusions

This study has argued that equitable energy provision is a fundamental prerequisite for socio-economic development, human security, and social justice in South Africa. While electricity is often viewed primarily as a technical or economic resource, the findings demonstrate that access to reliable, affordable, accessible, and secure energy is intrinsically linked to human dignity, equality, and inclusive development. Consequently, energy provision should be understood not merely as a public utility but as a developmental and social justice imperative. The study has further shown that contemporary inequalities in electricity provision cannot be separated from the historical legacy of apartheid. The spatial and institutional arrangements established through apartheid policies, particularly the Bantustan system and other discriminatory legislation, continue to influence patterns of infrastructure development, electricity access, and service delivery. Although significant progress has been made in expanding electrification since the advent of democracy, historical disparities remain evident in many rural areas, informal settlements, and townships, where communities continue to experience inadequate infrastructure, unreliable electricity supply, and heightened vulnerability to energy poverty.

The transition towards renewable energy presents an important opportunity to address these historical injustices. However, the findings suggest that the Just Energy Transition will only achieve its developmental objectives if it is guided by the principles of equity, inclusivity, affordability, and accountability. A transition that primarily benefits economically advantaged communities while excluding historically marginalised populations risks reproducing existing inequalities rather than advancing social justice. Energy policy must therefore place distributive justice at the centre of planning, investment, and implementation to ensure that the benefits of the energy transition are shared equitably across society. Drawing on Civil Society Theory, the study also demonstrates that effective energy governance requires meaningful public participation, institutional accountability, and responsive state-owned enterprises. Strengthening the governance of Eskom, improving municipal electricity distribution systems, expanding infrastructure investment in underserved communities, and supporting community-based renewable energy initiatives are essential steps towards reducing energy poverty and promoting inclusive development. Equally important is the provision of targeted support for indigent households to ensure that affordability does not become a barrier to accessing essential energy services.

Ultimately, this study concludes that social justice cannot be fully realised without energy justice. Electricity is not simply a commodity for economic exchange but a public good that enables education, healthcare, employment, entrepreneurship, and overall human well-being. Ensuring equitable energy provision therefore represents both a constitutional obligation and a developmental necessity. As South Africa continues to reform its energy sector, policymakers should adopt an inclusive and justice-oriented approach that addresses historical inequalities, strengthens public institutions, and guarantees that every citizen has access to reliable, affordable, and sustainable electricity. Only through such an approach can energy provision become a transformative instrument for achieving equality, human dignity, and sustainable socio-economic development.

NOTE

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The authors declare that informed consent was not required as there were no human participants involved.

Conflict of Interest

The authors declare that there is no conflict of interest.

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