# Concrete models of socially-owned renewable energy – The case of Sekhukhune Combined Mining Affected Communities

May 2025

ahinasa

LAWYERS FOR HUMAN RIGHTS

WE FIGHT CLIMATE CHANGE
350Africa.org

scmac
THE VOICE OF THE MINING COMMUNITY

CALS
Centre for Applied Legal Studies

WITS UNIVERSITY

1922 100 2022

# Acknowledgements

This report was compiled by Sekhukhune Combined Mining Affected Communities (SCMAC), the Centre for Applied Legal Studies (CALS), 350 Africa, Ahinasa and Lawyers for Human Rights (LHR). We wish to thank all those who have supported the work which went into producing this document.

In particular, CALS would like to thank our funding partners at the Constitutionalism Fund, the ELMA Foundation, the Ford Foundation and the Raith Foundation for their support. We would also like to thank 350 Africa's donors for their funding support.

We are grateful to the following individuals for their valued contribution to the work outlined here:

Katlego Malesa (SCMAC)
Elton Thobejane (SCMAC)
Disree Maleka (SCMAC)
Eunice Mampa (SCMAC)
Pleasure Malesa (SCMAC)
Ewert Makonko (SCMAC)
Blondie Nkosi (SCMAC)
Tokelo Mahlakoane (SCMAC)
Thabiso Swafo (SCMAC)
Robert Krause (CALS)
Amahle Mkhwanazi (CALS)
Lebohang Tsotetsi (CALS)
Ferron Pedro (350 Africa)
Jennifer Harris (350 Africa)
Glen Tyler-Davies (350 Africa)
Mareka Mokwatlo (Ahinasa)
Janet Cherry (Nelson Mandela University)

To cite this report: Sekhukhune Combined Mining Affected Communities, Centre for Applied Legal Studies, 350 Africa, Ahinasa & Lawyers for Human Rights. *Concrete models of socially-owned renewable energy – The case of Sekhukhune Combined Mining Affected Communities* (2025).

Cover image courtesy of Canva

# Table of Contents

# Executive summary

The South African government has committed – both through policy and international agreements – to carrying out a just energy transition. Key examples include the Just Transition Framework and the Just Energy Transition Investment Plan (JET-IP) policy documents.[i] However, the concept of a just energy transition, like many political ideas, is not fixed; it is shaped by ongoing social and political struggles. Staying true to its roots in the labour movement,[ii] a truly just energy transition centers on whether the working-class majority – particularly those facing colonial, racial, gender-based, and other forms of oppression – can secure a shift to a renewable energy economy that serves the interests of the many. Otherwise, the risk is that a wealthy, powerful minority maintains dominance, simply swapping fossil fuels for cleaner energy without transforming the underlying capitalist system that benefits them.

In mitigation of the said risk, the Green New Eskom campaign, demands that workers and communities in fossil fuel-dependent regions and industries are not left behind in this transition.[iii] They must receive comprehensive support to manage the effects of the transition – support that includes, but not limited to, reskilling and access to new green job opportunities. The campaign also advocates for a just transition led by the public sector – one that expands universal, high-quality public services, ends energy poverty, guarantees a healthy environment for everyone, and delivers justice in all its dimensions. That means reparations for environmental harms, addressing wealth inequality, and ensuring fair, inclusive decision-making.

This vision stands in stark contrast to the neo-liberal approach, which often frames a just transition as the privatisation of energy, paired with minimal or symbolic social programmes meant to give the appearance of social responsibility while continuing a privatization agenda.[iv]

The demand for social ownership of renewable energy, including both public ownership and localised worker/community ownership, has been posed by sections of labour, communities and civil society as part of the just transition.[v] Socially-owned renewable energy has now entered into mainstream public discussions. However, similar to the concept of just transition, its meaning and implementation model is still highly contested.

Considerable research has been devoted to defining social ownership of renewables and examining case studies involving community and worker ownership of renewable energy.[vi] However, the specific implications for mining-affected communities have yet to be thoroughly investigated. These communities face unique challenges and opportunities in the context of a just transition and socially-owned renewable energy.

**Field work with local community participants and representatives from the Sekhukhune Combined Mining Affected Communities**

Notably, mining companies have begun investing in renewable energy both to power their operations and to diversify their revenue.[vii] At the same time, they are legally obligated to support community economic development, particularly in light of widespread coal mine closures and the growing demand for transition minerals used in renewable energy technologies.

Early experiences suggest that this new wave of mining is following the same extractives patterns as before. Despite longstanding awareness of the limited impact of community development initiatives under social and labour plans, one promising avenue for generating more meaningful, broad-based economic benefits is community ownership of renewable energy projects – especially those that could supply power directly to mining operations.

## The intended outcomes of this research report

The first objective of this report is to tell the story of a community that provides a human face to social ownership as an aspiration. The Sekhukhune Combined Mining-Affected Communities (SCMAC) is an organisation representing communities impacted by a number of mines in and around Burgersfort. This area hosts several large chrome and platinum mines, including some that have been placed in 'care and maintenance' for a lengthy period with devastating consequences for the local economy.

In their protests, SCMAC has raised the demand that mining companies operating in the area, instead of using the energy transition to further their own profits, resource the communities to supply mines with renewable energy as a potential catalyst for local economic development. SCMAC have partnered with civil society organisations 350.org, the Centre for Applied Legal Studies, Lawyers for Human Rights and Ahinasa, the consultancy firm, to provide desktop research and assist the SCMAC core team to conduct baseline and needs assessment research in their villages to develop an initial vision and governance principles for a community-owned renewable energy project (Annexure 1 to this report).

The second objective of this report is to present essential contextual information both regarding the case study and the topic of socially owned renewables. Specifically, the report includes a background and context section (Chapter 2), an overview of the legal and policy framework (Chapter 3), and insights from previous case studies on socially-owned renewables (Chapter 4). These chapters also informed the content of various workshops aimed at preparing the SCMAC core team to make an informed decision on the proposed ownership model (detailed in Annexure 1).

The third objective of this report is to assist SCMAC's campaign by making a case for all relevant stakeholders (mining companies, Eskom, local government, donor organisations, renewable energy companies and others) to provide the financial, technical and other support required for feasibility studies and small-scale piloting of solar mini-farms to test whether this would be viable as a economic development project. Chapter 6 (survey results of community needs and preferences), Chapter 7 (stakeholder roles and responsibilities) and Annexure 2 (the basic ownership model) are especially important in this respect.



The fourth objective of this report is to offer an example of a campaigning demand and aspiration for other mining-affected communities to coalesce around as part of their social and environmental justice demands. The process of collective learning through workshops and mapping of needs through the baseline survey offers a process other communities interested in a similar campaign might learn from and modify to suit their needs.

The fifth objective of this report is to challenge the dominant narrative that has developed around social ownership as an ally of the privatisation of energy generation, rather than a potential avenue of community development, under the stewardship of an adequately funded and decorporatised Eskom, that organisations and coalitions like AIDC and Climate Justice Coalition (CJC) are advocating for.

Finally, this report seeks to provide high-level recommendations on policy and legal reforms to create more support for community-owned renewable energy (in Chapter 8). These include a broader recommendation for a public sector-led energy transition as well as a tailor-made process by which communities seeking to own renewable energy and sell a certain amount to the grid (or companies in specific contexts) for collective benefit are afforded resources and training as well as a registration process that is not overly burdensome.

# Introduction

## The importance of this research

The demand for social ownership of renewable energy, including community ownership, has been made by labour, communities and civil society as part of the struggle to ensure that an energy transition which addresses the climate crisis does not leave workers and communities behind.

However, many within the labour movement have strongly criticized the adoption of the concept by both government and the private sector, viewing it as a 'trojan horse' for advancing energy privatisation.[1] They argue that the neo-liberal approach often uses the language of a just transition to justify the privatisation of energy systems, while offering only minimal or symbolic social programmes designed to project an image of social responsibility without challenging the broader privatization agenda.

Although research on social ownership among workers and communities is growing – particularly studies examining lessons from social ownership experiments – one key community sector remains underexplored: communities located near mining operations. These mining-affected communities hold unique potential for advancing social ownership due to the legal obligations mining companies have to support community development through social and labour plans (SLPs).[2]

In practice though, SLPs have largely failed to achieve their development goals.[3] Challenges in the implementation of SLPs include minimal community engagement, poor compliance, and fragmented project execution.[4] This failure is evident in the persistently poor socioeconomic conditions in these areas, a reality well-documented by researchers, journalists, and the lived experiences of communities noted by civil society organisations.[5]

Rather than fulfilling these obligations effectively, several mining corporations – such as Anglo American – have instead invested in renewable energy technologies.[6] These investments are aimed at meeting their own energy demands during periods of load-shedding, diversifying their revenue streams, and advancing decarbonization efforts.

However, initiatives where mining companies support and finance community-owned renewable energy projects – potentially enabling these projects to supply power back to the mines – offer a promising model for more inclusive local economic development. The existing expertise within community-based organizations and civil society around SLP frameworks suggests that socially-owned renewable energy projects could gain strong traction as a campaign focus, particularly if they are strategically linked to the mining sector's development responsibilities.



## Introducing Sekhukhune Combined Mining Affected Communities

Sekhukhune Combined Mining Affected Communities (SCMAC) is a non-profit, grassroots organisation based in Burgersfort, located within the Fetakgomo-Tubatse Local Municipality (FTLM) of the Limpopo Province. Situated in the mineral-rich Eastern Limb of the Bushveld Igneous Complex, this region hosts extensive platinum group mineral (PGM) operations, including major mines such as Twickenham Mine (owned by Anglo American Platinum) and Marula Mine (owned by Impala Platinum).[7]

SCMAC was established to challenge the structural marginalisation experienced by communities affected by mining in Sekhukhune. The organisation emerged in response to systemic exclusion from key decision-making processes under South Africa's Mineral and Petroleum Resources Develop-ment Act (MPRDA), which prioritises national mineral development but neglects the rights and interests of local, mine-host communities.[8] A core focus of SCMAC's advocacy is the flawed implementation of Social and Labour Plans (SLPs), which are legally required to ensure that mining operations contribute to local socio-economic development. Research indicates that mining companies often by-pass genuine community consultation, resulting in projects that fail to address the actual needs of local populations.[9]

SCMAC collaborates with organisations such the Sekhukhune Environmental Justice Network (SEJN) and Mining Affected Communities United in Action (MACUA) to document environmental harm and amplify the voices of those impacted.[10] SCMAC has also played an active role in promoting free, prior and informed consent (FPIC) as a necessary principle in mining governance. The organisation has presented its findings and positions in forums such as the United Nations Forum on Business and Human Rights, arguing that corpo-rate grievance mechanisms are often ineffective and lack legitimacy in the eyes of affected communities.[11]

In essence, SCMAC serves as a vital conduit for community mobili-sation, education, and advocacy in the face of extractivist policies and corporate impunity. By asserting environmental, social, and legal rights, the organisation contributes significantly to the broader struggle for participatory governance and equitable development in South Africa's mining sector.

## Methodology

The methodology, methods and instruments of any research are there to serve the aims of the research – how one designs research depends on what questions one is seeking to answer and the nature of the data one needs to do so. At the heart of the project is a community-based organisation, SCMAC. SCMAC is conducting research among its constituency on a development initiative it wishes to champion with the input and assistance of civil society organisations and academia. In addition, this project seeks to explore the relationship of socially-owned renewable energy and a strengthened public energy utility. For this reason, considering multiple aims of the study, we opted for a mixed methods approach. More fundamentally, we favoured an approach that promotes community agency in research – such as

SCMAC's role as a community research team – rather than treating communities as passive sources of knowledge. This was important due, firstly, to the research being part of a broader community-driven campaign and, secondly, to align with the approaches of all the contributing organisations involved in research. Therefore, the study adopted a participatory approach as the overarching guiding philosophy which implies a 'collaborative process of research, education and action explicitly oriented towards social transformation'.[12]

In order to understand the context and the legal and policy frameworks, desktop research was conducted with source material including legislation, government policies and plans, academic literature and research reports.

The basic ownership model arrived at by SCMAC, with the support of the project partners, was the outcome of a cumulative process of research and learning which included:

- **Initial workshops**: in order to consolidate the SCMAC core team and learn the basics of the climate crisis, renewable energy and social ownership;

- **Site visits**: where SCMAC and the project partners met with communities with prior experience of projects pursuing socially-owned (or partially socially-owned) renewable energy in order to learn lessons directly from the communities at the coal face;

- **Empirical field research**: to complement SCMAC members' knowledge of their villages by providing a detailed snapshot of local living conditions, access to electricity, and community perspectives on renewable energy. This assessed households' knowledge of renewable energy and explored preferences for social ownership, including favoured technologies, legal ownership forms, and preferred installation locations within the villages. These findings inform the design of renewable energy initiatives that align with community needs and priorities; and

- **A model development workshop in two parts**: the first, comprising sessions in which the SCMAC core team and research partners reflected on the learnings from prior workshops, exchanges and field research; the second comprising of sessions designed to provide an initial basic ownership model that can help frame the required pre-feasibility, feasibility and pilot installations in each village.

This research process goes beyond simple data collection, serving as a key part of a broader, community-led initiative to develop socially-owned renewable energy solutions. Through a participatory approach, the project fostered local ownership, collective learning, and community empowerment. By combining fieldwork, participatory methods, and policy analysis, SCMAC and its partners created a dynamic, locally-informed ownership model that supports ongoing dialogue and future implementation. The approach underscores the power of community-driven research in shaping socially just and transformative energy transitions grounded in the lived experiences and goals of local communities.



## Limitations

This research does not have the population levels to be a representative sample with a 5% margin of error using the Cochrane Formula for calculating sampling size.[13] This was due to the team not having the resources to finance a survey on that scale. Snowball sampling was utilised, drawing upon the SCMAC core team's knowledge of their own community.

The model and plan, in addition, should be seen as a high-level project plan that would still be subject to formal feasibility and pre-feasibility studies together with pilot small-scale installations in each village. This ownership model is rather a starting point for purposes of engagement with potential supporters of the pilot and which helps ensure that what is tested in the feasibility and pilot stage reflects community realities and preferences.

# Background and context

## Climate change, the need for mitigation and the origins of the concept of a just transition

It is now settled scientifically that humanity faces a climate emergency as a result of emissions of greenhouse gases (disproportionately driven by emission from fossil fuels) that will fundamentally change the conditions on the planet that make life habitable for humanity. Greenhouse gases include carbon dioxide, methane and nitrous oxide that are emitted through a range of human economic activities. They create a layer in the atmosphere that traps the heat from the sun like a greenhouse, hence the name.[14] It is also now the position of the most eminent scientists in the field on the Intergovernmental Panel on Climate Change that to stave off the most catastrophic impacts it is crucial that we limit the global average temperature increase to 1.5°C from pre-industrial levels.[15] This, in turn, requires the achievement of a decarbonised economy through phasing out the use of fossil fuels such as petroleum and, in particular, coal.[16]

However, decarbonisation of the economy, especially in the Global South, is as much a political, economic and social justice issue, as a technological issue. The technology for renewable energy has advanced at a rapid rate and already there are no technical barriers to a majority of energy needs being met by renewable sources.[17] This includes loss of work and worsening living conditions due to retrenchments, insufficient reskilling and work placement and the withdrawal of capital that results in ghost towns.

This is the context in which calls for a just transition originate. The origins of the demands for a just transition predate the climate justice movements and were, instead, the response of sections of the labour movement in the US, to non-climate related environmental regulation of manufacturing industries in the 1970s[18] – a set of demands to ensure that the costs of these measures were not levelled on the working class while the economic benefits were shared amongst the corporations and the wealthy few.

In South Africa, the issues of the just transition are in sharp relief as the value chain around coal-fired power has been a central part of the economy and are inextricably bound up with colonialism and apartheid. Whole regions of South Africa have developed around the coal/coal-fired power value chain including several municipalities in Mpumalanga where around 7% of the workforce is employed in the sector.[19] We have already seen examples of economic, environmental and social devastation that too often accompanies the closure of large mining operations, such as Blyvooruitzicht, as companies avoid their responsibilities and the state fails to regulate them.[20] The closure of power stations and mines without guaranteeing



the livelihoods of workers and providing mass upskilling could lead to a severe crisis. The creation of new sectors and public works programmes and a post-carbon economy that delivers decent work and dignified living conditions for all is vital for preventing socio-economic devastation on an even greater scale. The example of the Komati decommissioning and repurposing for renewable energy should serve as a cautionary tale of the consequences of an unjust transition where there was minimal community consultation.[21] Some of the flaws of process and outcome included excluding contract workers from consultations, and not requiring the company operating the repurposed facility to employ workers from Komati.[22]

## The context in Burgersfort

The Fetakgomo-Tubatse Local Municipality in the Sekhukhune District, Limpopo Province, South Africa, is rich in platinum group minerals (PGM) forming part of the Eastern Limb of the platinum belt. The area hosts an estimated 41 mining operations including large platinum mines such as Twickenham Mine (owned by Anglo American Platinum), Marula Mine (owned by Impala Platinum) and Sefateng Chrome Mine.[23] In spite of the vast mineral wealth, and mechanisms to ensure local economic development such as the legally-binding SLPs and voluntary corporate social investment (CSI) initiatives, the levels of unemployment are very high and reached as much as 61% in 2021.[24] Around 40% of mines are, however, non-operational.[25] Twickenham Platinum Mine (owned by Anglo American Platinum) has, for example been in care and maintenance since 2016.[26]

Mining companies have started to invest in renewable energy, both to pursue opportunities for diversification of sources of profit and for their own use to counter the effect of the electricity crisis in South Africa, which has seen unprecedented rolling blackouts since 2007, but at their height during the 2018 – 2024 period. For example, Anglo American has entered into a renewable energy joint venture with the multinational renewable energy company EDF,[27] which will pursue wind and solar energy with a targeted generation of 3-5gw energy by 2020.[28]

## The role of Eskom as a public utility

This report is also intended to contribute to the broader discussion around what kind of energy policy more broadly is capable of realising a just transition, worthy of the name. A crucial question is the nature of the organisations which drive the transition including what purposes they are set up to achieve and to whom they are answerable. An organisation driven by a mandate of generating a profit and subject to investor sentiment will be less inclined to prioritise public benefit initiatives such as social ownership and creation of decent work than an organisation with a public interest mandate and subject to strong oversight by labour and communities.

For this reason, the nature, role and structure of Eskom, the national public energy utility, will shape the possibilities for community ownership of renewables – in particular the scope for state support for such projects and how they can be integrated with the broader social goals. These goals include adequate free basic electricity, support for the productive and service sectors of the economy and promoting local manufacturing of components in renewable energy generation, storage and transmission.

The research of the Alternative Information and Development Centre (AIDC)[29] and others have examined how decades of neo-liberal reforms have contributed towards the hollowing out of Eskom as a public utility and the utility's financially precarious state and erosion of its public interest mandate. These reforms have included ending Eskom's tax exempt status,[30] requiring it raise some of its own capital rather than being funded from the fiscus[31] and, further, requiring it to pay dividends and show a profit.[32]

### The Climate Justice Coalition's Green New Eskom Campaign

The Climate Justice Coalition (CJC) comprises of a wide range of stakeholders including grassroots community organisations, trade unions and civil society organisations. It is presently the largest and most active coalition of its kind in South Africa, with a range of activities including campaigning and mobilisations, political education workshops and media content such as podcasts.[33]

One of the CJC's campaigns has been for a 'Green New Eskom' which is a vision in which Eskom leads the way in the transition to renewable energy that places the broader working class (labour and communities) and oppressed and marginalised groups (including women, LGBTQ+ people and people living with disabilities) at the centre.[34] This report is designed to help give concrete form to a specific but important part, namely what socially-owned renewables can mean for mining-affected communities, one of the most organised sections of grassroots activists in the environmental justice movement in South Africa.



# Legal and policy framework

### The absence of a government policy on community-owned renewable energy

Having introduced the context and the need for the project, it is now time to present a brief overview of the most relevant laws and policies and whether and how they serve as opportunities or obstacles for social ownership of renewables and, more specifically, community ownership.

Before looking at individual laws and policies, we will highlight some of the basic problems of the ideological and conceptual basis of current government policy and the dominant discourse on social ownership – or, rather, how the basic pillars contradict the version of social ownership advanced by labour, which emphasises democratic control, collective benefit, and a more equitable distribution of resources.

At the outset, it is important to note that the meanings, concepts and words, especially in politics and policy are always the subject of debate between different social interests and the ideologies/programmes for organisation of society they wish to see. The history of socially-owned renewables as a concept is instructive in this regard. In South Africa, the concept emerged from organised labour, in the resolution taken by the National Union of Metalworkers of South Africa (NUMSA) in 2012 and it was envisaged in terms of a democratised public sector-led transition.[35]

There are, however, some proponents of social ownership who favour the break-up of Eskom and the end to its role as the primary energy generator and its replacement by a decentralised energy system. They also view the concept of social ownership as a third way between public ownership and for-profit private ownership rather than any form of ownership (whether national government, local government or community) for a public benefit and subject to democratic control of workers and communities. Authors of this report have encountered this view in the many dialogues on social ownership they have attended as well as informal discussions and debates between different schools of opinion amongst climate activists.

The danger of this conception of social ownership is that it can help to sugar coat the present government policy of privatising the generation of energy and breaking up Eskom into separate generation, transmission and distribution (i.e. service provision) companies, one that will be unpacked further in in the items under this section.[36] This approach fulfils the wishes of domestic and international corporations and

financial institutions,[37] though not always at the pace being demanded.[38] Further, there are some specific government policy interventions that may be seen as a tokenistic/diluted version of social ownership, for example the tiny community ownership share of 2.5% that independent (private sector) power producers must set aside (to be discussed below under the heading 'REIPPP'). Partly for this reason, many representatives of labour and left thinkers at dialogues and conferences have expressed an increased suspicion that 'socially owned renewables' is primarily a cover for privatisation.

For this reason, this report adopts and champions an understanding of social ownership that does not require decentralisation but embraces all ownership and organisational forms with a social justice/public interest goal, and which is subject to working class oversight and control. In the definition we adopt in this report, a de-corporatised Eskom with a public benefit mandate and with worker and community ownership *is* a form of *centralised social ownership,* whereas the aforementioned 2.5% community share of a private energy company is *not* social ownership. Local ownership by a community/worker co-operative or other democratic collective is *decentralised social ownership*.

This does not mean that there is no room for communities to use particular sources of leverage to negotiate for better terms than the policy baseline. Advances can more importantly, in fact, build confidence – in addition to yielding tangible (albeit limited) material improvements. This can also provide a reference point for other communities and ultimately assist in amassing the social forces required to bring about an overhaul of policy. In addition, it is critical to keep in mind that, even while the deeper vision of social ownership may not be supported by present legislation, communities may strategically advocate for more power within the current framework.

This might involve pushing for laws that favour co-operatively owned and operated renewable energy projects, calling for clear benefit-sharing agreements, or supporting stricter regulatory frameworks that require greater community involvement in energy projects. Communities may begin to change the energy sector's power dynamics, even if incrementally, by making innovative use of the legal and policy instruments now in place. This will pave the way for a day when social ownership will be more completely realised. Although it cannot replace systemic change, this gradual evolution can serve as a catalyst for more significant changes in the energy environment.

## Electricity Regulation Act

The preamble of the Electricity Regulation Act, 2006 ('ERA') explains the purpose behind the Act as follows:

> *To establish a national regulatory framework for the electricity supply industry; to make the National Energy Regulator the custodian and enforcer of the national electricity regulatory framework; to provide for licences and registration as the manner in which generation, transmission, distribution, trading and the import and export of electricity are regulated; and to provide for matters connected therewith.*



The ERA was recently amended to bring the law in line with policy, increasing the role of the private sector in electricity regulation. The Amendment Act introduced new provisions designed to provide an enabling framework for private generators of electricity such as independent power producers (IPPs). Some examples of this are that the amendments provide for an independent trading platform (to regulate an electricity market)[39] and codify a role of the state as a 'central purchaser' which concludes agreements to purchase electricity from independent power producers.[40] The ERA, as amended, is at loggerheads with social ownership as envisaged in this report in two respects. Firstly, the Act is designed to further a marketised approach to the energy transition. Secondly, the Act provides no specific measures to support community ownership of energy. This lack of provisions highlights the disconnect between the government's regulatory framework and the potential for more community-driven initiatives, which could empower local populations and shift control away from private corporations.

These amendments are rooted in a neoliberal framework that prioritises private investment and profit-driven production, aligning with broader government policies aimed at fostering private sector involvement. The introduction of an independent trading platform and the state's role as a 'central purchaser' illustrates a push towards a more commercialised energy market, where the production and distribution of electricity is largely governed by market forces. This shift inherently favours large-scale private entities, particularly IPPs, which are better equipped to compete in deregulated markets and access the necessary capital to generate energy at scale. The social ownership model, however, aims to create a radically new energy environment by emphasising community and public control over energy resources, prioritising social benefit, equitable utilisation and local economic growth.

The ERA has been amended several times since 2011.[41] The 2011 amendments created a framework for procurement of generating capacity by organs of state, through measures such as the Renewable Energy Independent Power Producer Procurement Programme (REIPPPP). The 2020 amendments allowed municipalities to procure new electricity generation as long as it complies with Section 34 of the 2019 IRP.[42] The 2021 amendments increased the threshold of generation (the amount requiring a licence) from 1 mw to 100 mw therefore reducing the barriers to private electricity generators selling to the grid (embedded generation).[43]

The current regulatory framework governing electricity generation in South Africa, as defined by the ERA and its 2021 amendment to Schedule 2, presents substantial barriers for socially-owned renewable energy initiatives. While small-scale generation under 100kW is exempt from licensing, these exemptions do not grant the right to sell electricity to third parties, including municipalities.[44] This effectively disqualifies most community-based renewable projects from participating in formal energy markets, such as municipal feed-in tariff (FiT) programmes. Although wheeling or private-use arrangements are permitted, they are generally unsuitable for socially-oriented energy initiatives that seek to benefit broader community interests.

Municipalities themselves face structural and procedural limitations that further complicate community access to energy markets. The absence of a standardized national framework and the technical complexity of existing municipal processes

national framework and the technical complexity of existing municipal processes make it nearly impossible for small, community-led projects to participate in grid-connected energy systems.[45] While a few municipalities, such as the City of Cape Town and Nelson Mandela Bay, have pioneered pilot projects in small-scale embedded generation (SSEG), these initiatives remain fragmented and tailored primarily for commercial entities rather than socially-owned systems.[46] Consequently, potential community contributors to the energy transition are excluded, despite the broader policy rhetoric supporting decentralised energy systems.

This exclusionary landscape entrenches existing socio-economic disparities and undermines the goals of a just energy transition. The policy focus on Independent Power Producers (IPPs) and private investment, while necessary for national grid stability, sidelines community initiatives that could address local energy poverty and redistribute benefits more equitably.[47] The lack of specific mechanisms in the ERA to facilitate community energy projects – such as standard agreements for municipal purchase or tailored licensing thresholds – perpetuates a system that favours corporate actors over grassroots, socially-owned models. Without targeted reforms, the ERA will continue to entrench inequality in energy access and ownership.

## Electricity regulations on new generation capacity

Section 35 (4) of the ERA provides for regulations on new generation capacity. The Electricity Regulations on New Generation Capacity have been developed in order to promote, plan for and regulate additional generation capacity.[48] They are principally about creating a regulatory framework for additional generation capacity on the grid from the private sector with the objectives listed as:

> *(a) to facilitate planning for the establishment of new generation capacity;*
>
> *(b) the regulation of entry by a buyer and a generator into a power purchase agreement;*
>
> *(c) to set minimum standards or requirements for power purchase agreements;*
>
> *(d) the facilitation of the full recovery by the buyer of all costs efficiently incurred by it under or in connection with a power purchase agreement, including a reasonable return based on the risks assumed by the buyer thereunder and to ensure transparency and cost reflectivity in the determination of electricity tariffs; and*
>
> *(e) the provision of a framework for implementation of an IPP procurement programme and the relevant agreements to be concluded*

The regulations are therefore part of the project of creating a market in electricity including conditions favourable to profits such as cost reflective tariffs. This principle runs contrary to the conception of electricity as a public good to support the meeting of the needs of consumers and as a prerequisite for economic development.



## Integrated Energy Plan and Integrated Resources Plan

The Integrated Energy Plan (IEP) and Integrated Resources Plan (IRP) are the policy frameworks designed to ensure that South Africa meets its energy needs for both society and the economy. The development of the IEP is mandated by Chapter 3 of the National Energy Act of 2008, giving the Minister of Mineral Resources the responsibility to create a comprehensive energy plan that addresses all energy needs, including fossil fuels, renewables and nuclear power.[49] The IEP is meant to guide energy infrastructure investments by evaluating all viable energy supply options and directing the selection of appropriate technologies to meet energy demand. It emphasises the importance of energy security, sustainability and socio-economic development – reflecting the government's goals of promoting energy access, reducing reliance on non-renewable resources, and fostering economic growth through the energy sector.[50] While the IEP covers broader energy needs, the IRP in terms of Section 4 (1) of the Electricity Regulations on New Generation Capacity plays a key role in shaping the country's long-term strategy for electricity generation and sustainability specifically.[51]

The IRP is an electricity capacity plan that aims to project the country's electricity demand, determine how this demand will be supplied and estimate the associated costs.[52] It is crucial for outlining the long-term strategy for the energy sector, identifying necessary investments in generation capacity, and promoting a mix of energy sources that align with South Africa's commitment to reducing carbon emissions. The IRP therefore should also serve as a framework for integrating renewable energy technologies and transitioning to a low-carbon energy system.

At present there is a policy gap with a need to update the IEP followed by an updated IRP that is aligned to the IEP. Instead, the Minister responsible for Mineral Resources in 2023 published a draft IRP prematurely without an IEP to guide it.[53] The draft IRP has been widely criticised for, in particular, being initiated in the absence of an updated IEP,[54] for flaws in assumptions and modelling including the energy availability factor,[55] and for envisaging further expansion of fossil-fuel based energy sources (coal and gas) while leaving renewable energy generation to the private sector.[56]

## Renewable Energy Independent Power Producer Procurement Programme (REIPPPP)

The renewable energy independent power producer procurement programme (REIPPP) essentially involves private energy companies bidding to supply Eskom with electricity while in their bid including social development projects and community equity.[57] The REIPPP policy provides for up to 0.6% of project revenue for social development and enterprise development and a minimum of 2.5% of project shareholding to be community-owned. As Wlokas, Westeby and Soal observe, these minimum requirements, however fall far short of community ownership both in respect of equity (the community is a tiny minority of shareholders) and with respect to voice and participation – the policy leaves the discretion on what form and level of participation with the developer.[58] Given communities are invariably small minority shareholders, they enjoy very little leverage. Wlokas, Westeby and

Soal further observe that the technical/specialised language used in the IEP policy makes it very unclear, to the communities in particular.[59]

The existence of some social benefit and ownership requirements does provide limited leverage for a well organised community to negotiate for a better deal but as a framework it cannot be said to be promoting community ownership. Stronger requirements would be preferable but this would be met with opposition and threats to disinvest by capital. An Eskom restored to a public benefit utility that builds its own renewable energy generating capacity would be better suited to enabling community ownership and participation in renewable energy as part of its developmental mandate.

## Social and labour plans under the MPRDA

Social and Labour Plans (SLPs) under the Mineral and Petroleum Resources Development Act, 2002 (MPRDA) are a set of binding programmes for the development of communities and employees that mining companies must develop and implement as a condition for the right to mine. Participation by communities and other role players is required in the formulation, review (SLPs must be reviewed every five years when a new 5-year SLP is drawn up) and progress monitoring. The regulations set out the types of projects SLPs must include. Of these categories of projects, the community income generation projects are the most important. This refers to support for community enterprises/entrepreneurs and/or setting up new enterprises for communities.

The social responsibilities of mining companies present a potential leverage point for communities to advocate for the funding of community-owned renewable energy projects as income-generating initiatives within the framework of Social and Labour Plans (SLPs). This approach is consistent with the increased emphasis on corporate social responsibility (CSR) in the mining industry, where companies/ organisations are expected to contribute to the socioeconomic development of the communities in which they operate. Communities can not only seek financial assistance for renewable energy projects through Social and Labour Plans, but also encourage sustainable development that coincides with national energy objectives and climate change pledges.

Incorporating renewable energy projects into SLPs may boost job creation, improve energy security and minimise dependency on traditional energy sources. These initiatives have the potential to empower local communities, promote entrepreneurship and boost economic resilience by allowing communities to generate their own electricity. Engaging in discussions with mining companies about these commitments may also allow the formation of partnerships that lead to the development of local capacity and knowledge in renewable energy technology. This capacity building is critical to ensure that communities not only benefit from these initiatives in the near term, but also have the skills and knowledge to sustain and extend them in the long term. The effective execution of such initiatives can serve as a model for other mining operations, demonstrating the advantages of combining community demands with business objectives in a way that promotes social fairness and environmental sustainability. The favourable effects of these



projects may motivate other mining companies to take similar measures, resulting in a more inclusive and fair energy sector. By showing the viability and advantages of community-owned renewable energy projects, such endeavours can help to drive deeper systemic reforms in the mining industry's approach to community participation and sustainability.

## Roles and responsibilities in relation to electricity generation

Eskom bear primary responsibility for energy generation. To fulfil national energy demands, it runs a varied portfolio of power plants, which includes coal-fired, nuclear, hydro, wind and gas facilities.[60] Eskom is responsible for creating and implementing plans to maintain a consistent electricity supply, overseeing the maintenance and upgrading of current generation facilities, and investing in new generation projects in accordance with the IRP.[61] As a major producer, Eskom plays an important role in balancing electricity supply throughout the national grid and maintaining compliance with regulatory frameworks aimed at promoting sustainability and lowering carbon emissions.

## Roles and responsibilities in relation to electricity transmission

Eskom is largely responsible for the high-voltage transmission of power across South Africa. This involves running and maintaining a massive network of transmission lines and substations that transfer electricity from power plants to distribution terminals. Eskom's transmission responsibilities include guaranteeing the reliability and stability of the national grid, controlling load flow, and addressing any transmission bottlenecks that may emerge. Furthermore, Eskom is responsible for extending the grid infrastructure to underserved regions, easing access to power for isolated and rural people as part of its larger duty to offer universal access to energy.

## Roles and responsibilities in relation to energy distribution

There are two primary role players in relation to the distribution of electricity under South Africa's regulatory framework: Eskom and municipalities. Municipalities can apply to be an electricity service provider and the provision of electricity is in practice one of the primary ways many municipalities raise revenue. However, not all municipalities have been registered as electricity service providers and some communities therefore still receive electricity directly from Eskom. While it is in the process of applying, the Fetakgomo-Tubatse Municipality is not at the time of writing an electricity service provider so the service provider for communities in the study area remains Eskom.[62]

# Social ownership and different organisational forms

## The social ownership of renewable energy

Calls for just social ownership of renewable energy have often featured amongst the programmes for a just transition put forward by organised labour and climate justice activists.

So, what is social ownership? Social ownership, like all political/policy concepts, is contested and its definition depends on the interests that are sought to be advanced as well as those sought to be sidelined. For example, contrary to the initial intention behind the concept, social ownership is increasingly defined in opposition to a public energy utility with part of the case for privatisation of generation (to progressive audiences) being that it will facilitate social ownership. However, there is little evidence to suggest that the independent power producer policy is leading to a flourishing of community and worker ownership.

Instead, the contrary seems to be the case, with wholly community-owned renewable energy being a rarity.[63] This should not come as a surprise, especially given levels of poverty and inequality in South Africa (and the Global South more broadly). There is no possibility of community ownership prevailing against corporate ownership absent a central role for a public sector and utility that treats electricity as a public good rather than a commodity, and for whom support for community-owned renewable projects could be part of its social development mandate. This is especially true in a highly competitive and resource-intensive bidding process such as the REIPPP programme in which community co-operatives will very seldom if at all be able to compete with for profit businesses with capital.[64] Therefore, whereas social ownership is often defined as an alternative to both centralised public ownership and ownership by big corporations, and decentralisation is stressed as its defining characteristic, this report instead emphases social justice goals and democracy. We, therefore, rather than excluding a central public utility like Eskom from the concept of social ownership, in fact, include it.

Unlike conventional ownership structures dominated by private corporations, social ownership emphasises democratic control, local involvement, and the equitable distribution of benefits. This approach seeks to empower communities, workers, and marginalised groups by giving them a stake in the development of their communities, management, and ownership of renewable energy projects.



Social ownership is a system in which the means of production – such as land, industries, and resources—are collectively owned and managed by society, rather than by private individuals or corporations for profit. It is predicated on the idea that the riches created from resources ought to benefit every member of society, encouraging fair distribution and lowering inequality. Social ownership ensures that economic decisions are made with the public interest – rather than private profit – by emphasising democratic governance and community well-being. A system that aims to establish an economy where resources are used responsibly and effectively, promoting social welfare and a more equitable and inclusive society by taking the focus off individual profit. The idea is frequently connected to initiatives aimed at achieving economic power parity, equal opportunity, and universal access to essential necessities.

Broadly, this report distinguishes between centralised and decentralised social ownership. Social ownership of renewable energy has potential resonance with the experiences of the mining-affected communities in the Burgersfort area given the manner in which they have experienced many of the negative environmental and social impacts without benefiting from mining in any significant way. Activists in the community have also long sought to ensure a meaningful say in decision-making around mining.

Social ownership of renewable energy can take various organisational forms, each providing a unique approach to community involvement and control. By exploring various organisational forms – such as co-operatives, non-profit organisations, communal property associations, and municipal or state ownership – social ownership of renewable energy offers a pathway to ensure that the social, economic, and environmental gains from clean energy are shared widely and contribute to sustainable local development.

## Exploring the organisational models for the social ownership of renewable energy

This section explores the various organisational models that can facilitate social ownership of renewable energy, focusing on forms that empower communities and ensure that the benefits of renewable energy are equitably shared.

### Centralised social ownership

#### State ownership under community and worker monitoring

State ownership under community and worker monitoring is a model where the government owns and operates renewable energy assets while incorporating mechanisms for community and worker oversight. This approach combines the advantages of public ownership with elements of democratic participation and accountability. Under this model, the state retains ownership and control over renewable energy infrastructure, such as national solar or wind farms. However, community and worker representatives are involved in oversight and decision-making processes to ensure that the projects meet social and environmental goals. This might include participation in management boards, advisory committees, or stakeholder consultations.

The involvement of community members and workers helps to ensure that the benefits of renewable energy projects are distributed equitably, and that the operation of these projects aligns with local needs and preferences. It also enhances transparency and accountability, reducing the risk of mismanagement or corruption. This model aims to balance the efficiency of state ownership with the inclusiveness of community participation, promoting a fair and just energy transition that benefits all stakeholders.

Community-owned renewable energy should not be seen in opposition to this democratic model of public ownership. The public utility could, as part of developmental initiatives, provide support for community and worker co-operatives to own electricity for community needs and to generate some income from proceeds of the sale to businesses or to the government.

## Decentralised social ownership

### Co-operatives

Co-operatives are member-owned and member-controlled organisations that operate based on principles of democratic participation and shared benefits. They are defined by the Co-operatives Act as: 'An autonomous association of persons united voluntarily to meet their common economic, social or cultural needs and aspirations through a jointly owned and democratically controlled enterprise organised and operated on co-operative principle'.[65] By guaranteeing that members share equally in earnings and decision-making authority, this approach promotes group accountability and sustained community involvement.

The key advantage of co-operatives in the renewable energy sector is their capacity to directly channel the benefits of energy production back into the local community. Profits generated from energy sales are often reinvested into the co-operative, either to fund future projects or to lower energy costs for members, ensuring long-term sustainability. Beyond financial returns, co-operatives play a vital role in fostering local economic development by creating jobs and encouraging active community involvement in sustainable practices. They also help bridge gaps in areas where private investment is scarce, making clean energy more accessible and ensuring that the transition to renewable energy is both inclusive and community driven. Co-operatives may also become limited liability.[66]

One of the limitations of co-operatives is that they cannot obtain public benefit organisation or not-for-profit status.[67] The collective, democratic and developmental principles of the co-operative model make it a good potential match for SCMAC's social ownership model. For these reasons and the many instances of failing community trusts, SCMAC have selected it as the ownership form they will initially be putting forward for the purposes of the planned feasibility and pilot stage, albeit subject to consultation with the broader community (as will be seen later in this report).



### Non-profit organisations or community-based organisations

Non-profit organisations (NPOs) and/or community-based organisations (CBOs) operate with a focus on social, environmental and community benefits, rather than financial profit. This term is somewhat misleading as non-profit companies are actually allowed to make a profit.[68] Their Memorandum of Incorporation must state their public objective which must fall into one of two categories namely 'a public benefit object (social/environmental mission)' or 'an object relating to one or more cultural or social activities, or communal or group interests'.[69]

In the realm of renewable energy, organisations may take on roles such as developing, managing and advocating for renewable energy projects that serve the public good. They may operate solar installations, wind turbines or other renewable technologies with the goal of providing affordable, clean energy while addressing social or environmental issues. Organisations often reinvest any surplus revenue generated from energy projects into community development initiatives, such as energy efficiency programmes, educational outreach, or social services.[70]

There are certain limitations of NPOs such as the prohibition of providing income to beneficiaries whereas with co-operatives this is an option.[71] Further, not-for-profits have limited access to capital and tend to be dependent on donations.[72]

### Ownership by municipalities

Municipal ownership refers to a scenario where local government entities invest in and manage renewable energy projects within their jurisdiction. Municipalities, as local government bodies, can develop and operate various renewable energy facilities. The role and benefits of municipal ownership of renewable energy and its relationship to renewable energy produced by the national power utility, and by community-owned renewable energy merits further consideration and research.

In conclusion, the various models of social ownership in the renewable energy sector provide diverse pathways for community empowerment, sustainability and equitable development. While each model presents unique opportunities for fostering community engagement and enhancing resilience, they also come with certain limitations, such as challenges in accessing capital or ensuring broad participation. However, the principles of collective ownership, transparency and reinvestment into local communities make these models valuable alternatives to traditional private sector-led energy development. Ultimately, a combination of these approaches, tailored to specific community contexts and needs, could help accelerate the transition to renewable energy while promoting social and economic equity.

# Insights from prior social ownership case studies

In South Africa, 'community' within social ownership generally refers to socially and economically disadvantaged groups in specific geographic regions, such as townships or villages.[73] Studies in the Global North, including the UK and Germany, have emphasised similar advantages of decentralised energy (DE) projects, where local, small-scale solutions support broader national transition objectives by enhancing local investment and community engagement in energy assets).[74] The concept of socially owned renewable energy remains largely untested in the South African context, despite its widespread implementation across the Global North and South, such as in Europe, the United States, Australia and South America. The implementation of the socially-owned renewable energy concept has yielded a range of outcomes, providing valuable insights for South African researchers and development practitioners.

## Challenges and lessons learned from the implementation of socially-owned renewables in the Global North

In the Global North, socially-owned renewable energy projects encounter multiple challenges, such as regulatory and financial obstacles. In countries such as Germany, Denmark and the UK, community energy projects have been encouraged through supportive policies. They frequently face challenges, however, in securing adequate financing and navigating intricate regulatory environments. The substantial initial capital expenses linked to renewable energy technologies present considerable challenges, particularly for smaller community groups or co-operatives.[75]

Moreover, several community-led initiatives in the Global North have faced difficulties in competing with large-scale renewable energy developers, resulting in a dependence on external private capital that may undermine the community ownership model. Lessons learned include the significance of supportive government policies, such as feed-in tariffs or community energy grants, and the necessity for capacity-building initiatives to assist communities in managing and operating renewable energy projects.[76]

Urban projects, such as Germany's EWS Schönau and Spain's SEC,[77] are ecologically focused, decentralised, and community-owned, promoting inclusive membership models that frequently encompass low-income participants and community-based financing. Meanwhile, rural initiatives – such as tenant electricity projects by Bürgerenergiegenossenschaft and the Italian municipalities of Villanovaforru and Ussaramanna – empower local communities through cooperatives that prioritise renewable energy production and direct distribution to their members. These initiatives primarily utilise solar power, while some also incorporate biogas, hydro, and wind energy. They benefit from deregulated energy markets overseen by regulatory bodies, ensuring equitable access and decentralised power distribution.

Funding for these projects typically depends on membership fees, bank loans, and EU grants, with certain groups making efforts to minimise reliance on banks. Policy frameworks such as Germany's Renewable Energy Act (EEG) and Mieterstromgesetz offer essential support through feed-in tariffs and regulated tenant energy solutions. However, certain rural projects encounter regulatory challenges, including strict requirements to share electricity within designated grid limitations. Participation is frequently enhanced by indirect subsidies, active community engagement, and volunteer efforts. Barriers include tenant or landlord hesitancy, financial constraints for smaller distributors, and logistical requirements for grid connection. These renewable initiatives signify a community-driven response to ecological issues and energy market constraints, establishing networks throughout Europe to impact national policies concerning renewable energy.

## Challenges and lessons learned from the implementation of socially-owned renewables in the Global South

In the Global South, socially-owned renewable energy projects confront distinct challenges, frequently stemming from socio-economic and political contexts. A significant challenge is the limited access to finance and technical expertise, which can impede communities' ability to develop and sustain energy projects. Furthermore, the lack of supportive policy frameworks in numerous Global South countries restricts the scalability and sustainability of community-owned renewable energy initiatives.[78]

The decentralisation of energy generation and distribution, although crucial for tackling energy poverty in rural or underserved areas, frequently lacks the necessary institutional support for long-term success. Lessons from Global South countries such as India and Kenya underscore the importance of partnerships among community groups, governments and development organisations to deliver essential financial and technical support for these initiatives. Another lesson is the importance of engaging local communities in the planning and decision-making processes to ensure that projects align with local needs and capacities.[79]

In Brazil's favelas, Revolusolar utilises solar power to enhance energy accessibility, decrease expenses and foster environmental awareness through community workshops. Puerto Rico's Casa Pueblo initiative, backed by local businesses and grants, implements a neighbourhood solar grid to decrease reliance on fossil fuels and supply resilient electricity to Adjuntas. In Indonesia, the Mekar Sari co-operative operates a community-owned micro-hydro power plant for electricity and revenue generation, with partial support from UNESCAP and private investments. India's

Odanthurai Panchayat windmill project provides free electricity to residents, supported by local financing and government subsidies.

These initiatives depend on multiple policy frameworks and financial support to maintain their sustainability and address regulatory and logistical challenges. Net metering policies in Brazil and Puerto Rico have enabled community solar projects, whereas Indonesia's innovative feed-in-tariff policies have contributed to the establishment of community-owned energy. Challenges include government corruption in Indonesia and infrastructure damage in Puerto Rico following Hurricane Maria, which further drove the establishment of local energy sovereignty. Each project entails significant community involvement, with local cooperatives or councils overseeing maintenance, training and conflict resolution, highlighting the significance of community-driven models for renewable energy access.

## Challenges and lessons learned from the implementation of socially-owned renewables in South Africa

South Africa encounters distinct challenges in the deployment of socially-owned renewables. The energy sector of the country has been primarily controlled by a centralised, state-owned utility (Eskom) which has traditionally depended on coal-fired power generation. The absence of a supportive policy framework for decentralised, community-owned renewable energy projects has impeded the development of this sector. Additionally, financing continues to be a significant challenge, especially for historically marginalised communities that do not have the means to invest in renewable energy technologies.[80]

Moreover, the socio-political landscape in South Africa, characterised by profound inequalities and a legacy of social exclusion, introduces an additional layer of complexity. While socially-owned renewables can significantly aid the country's just energy transition by empowering marginalised communities, they encounter considerable obstacles, including a lack of capacity and expertise at both municipal and community levels. Lessons learned from pilot projects highlight the necessity for a strong policy framework, access to concessional financing, and capacity-building programs to facilitate community engagement and participation.[81]

The current status of socially-owned renewable energy in South Africa encounters substantial challenges due to an emerging regulatory environment that has only recently started allowing wider participation in energy generation. The Presidential Climate Commission socially-owned renewables report identified several emerging projects as examples of socially-owned renewable energy, including utility-scale ventures with community shareholding, residential solar projects, and mini-grid installations in rural areas. Despite the limited number of operational projects, there exists a significant pipeline of initiatives influenced by factors such as ongoing load-shedding and economic dynamics, indicating a potential for growth in community engagement and social ownership within the renewable energy sector.[82]

The REIPPPP has enabled the development of over 100 large-scale renewable energy projects featuring community shareholding. The procurement requirements specify that at least 2.5% of project shareholding must be allocated to local



communities. However, numerous projects have implemented community trust structures that offer limited socio-economic benefits.[83]

The Tsitsikamma Community Wind Farm serves as a successful model by collaborating with the established Tsitsikamma Development Trust; whereas other initiatives, such as the Wesley-Ciskei Wind Farm, utilise land ownership by Black farmers to produce lease income and shares for local landowners.[84] However, challenges such as insufficient community involvement, vandalism and a lack of socio-economic cohesion frequently undermine these initiatives, as evidenced by previous projects like the Lucingweni and Hluleka mini-grids.[85]

Emerging efforts such as the Transition Township Project and the Urban Movement Incubator Energy Democracy Project are investigating community-led renewable energy solutions, with the goal of strengthening social capital and fostering local engagement. The Transition Township Project in Gqeberha aims to empower low-income households through solar installations and co-operative models.[86] To ensure successful implementation, it is essential to address socio-economic issues and actively engage local communities throughout the process. Strategies suggested by researchers highlight the significance of involving local stakeholders in the decision-making process, which in turn boosts the acceptance and effectiveness of renewable technologies.[87] The conversion of decommissioned coal-fired power stations, like the Komati Power Station, offers a chance for renewable energy production while promoting community ownership and reskilling efforts.[88]

## Criteria for the successful implementation of socially-owned renewables

The effective execution of socially-owned renewable energy initiatives demands several essential components. Firstly, a supportive policy and regulatory framework is essential. Governments must establish supportive frameworks, including feed-in tariffs, tax incentives and grants to promote community involvement in renewable energy generation.[89] Secondly, access to affordable and sufficient financing is essential. Especially for disadvantaged or rural communities that do not have the capital for initial investment in renewable technologies. This can be enabled through government-supported funding programs or collaborations with development finance institutions.[90] Thirdly, it is crucial to invest in capacity building so that local communities possess the skills and knowledge required to develop, operate, and maintain renewable energy systems. This encompasses technical training, project management assistance and legal or regulatory expertise. Ultimately, robust community engagement and participation are essential for ensuring that socially-owned renewable energy initiatives address local needs and secure the necessary support for sustainable success.[91]

In the last twenty years, community renewable energy co-operatives within the EU have created a network that facilitates the formation of new co-operatives and energy efficiency projects. These groups work together to oversee the execution of EU policies that promote community energy initiatives and advocate for safeguards against liberalised energy markets. They also offer crucial support and seed funding for initiatives such as Villanovaforru and Ussaramanna.[92]

Despite these efforts, some scholars contend that community energy continues to be marginalised. For example, Sweeney et al. (2020) emphasise the detrimental effects of feed-in tariff (FIT) subsidies, stating that the unintended outcomes of these policies obstruct the original goal of encouraging distributed generation. The transition to competitive auctions, driven by rising electricity costs associated with feed-in tariffs, has resulted in diminished political backing for community energy within the working class.[93]

Research has yielded varied outcomes concerning the efficacy of FITs, with Bauer and Uriona (2018) contending that they played a substantial role in Germany's renewable energy expansion, surpassing initial expectations.[94] The success of community energy co-operatives frequently depends on active member participation, as demonstrated in instances such as Som Energia in Spain.[95]

Challenges persist, including gender biases in participation and the necessity for accessible distribution grids. While certain community cooperatives have effectively utilised private green energy sources, the drive for energy self-sufficiency highlights the necessity for comprehensive national planning, particularly in densely populated regions.[96] Regulatory measures to support small-scale independent power producers and shield them from competition with larger corporations are crucial for promoting local energy democracy.[97]

Socially-owned renewable energy continues to be primarily a phenomenon of the Global North, with few instances in the Global South, where small-scale renewable energy projects are frequently not meaningfully socially-owned. The historical disparities in global wealth distribution have resulted in significant exclusion from access to renewable energy for numerous populations. To improve the viability of these projects in the Global South, essential factors involve the existence of intermediary organisations that support community capacity-building, the allocation of unconditional grant funding to guarantee direct community benefits, and the implementation of suitable technology adapted to local requirements. The engagement of intermediary organisations is essential, as they can offer the vital financial, technical and social support needed for communities to effectively adopt renewable energy solutions that they can fully own.[98]

The example of Revolusolar in Brazil illustrates how intermediary organisations can facilitate 'citizen solar installations' in communities experiencing economic difficulties akin to those in South Africa. Financing socially-owned renewable energy initiatives in the Global South must adopt a developmental approach, emphasising the enhancement of livelihoods alongside the provision of renewable energy solutions. Unconditional grants allow communities with limited disposable income to acquire renewable installations without the obligation of debt repayment.[99] The success of socially-owned renewable energy depends on aligning renewable energy projects with community needs and contexts. For example, the challenges in rural areas vary considerably from those in urban environments. Moreover, community engagement, the acceptance of cooperative models, and connections to public grids through tariffs are essential to ensure that socially-owned renewable energy projects serve as transformative forces instead of reinforcing existing inequities.[100] Overall, these initiatives should prioritise community ownership and relevance to guarantee sustainable and equitable energy access in the Global South.



# Snapshot of community needs and preferences

In May 2024, a 13-member research team conducted a baseline survey in four Fetakgomo-Tubatse Local Municipality (FTLM) villages. The research focused on a sample of 52 respondents selected from a total of 1,121 individuals across the four villages, specifically Manjekane (10,250), Morapaneng (10,234), Ditwebeleng (11,395), and Makgopa (21,242). FTLM comprise 387 villages with 125,361 households.[101] This relatively small qualitative study led by community activists residing in the four villages aimed at capturing the texture and nuance of community perspectives, providing valuable data for shaping the direction of a campaign for socially-owned renewable energy in mining-affected communities, allowing the project team to develop effective messaging that can resonate with local values and concerns. The team collected data through a paper-based questionnaire, and analysis was done using Excel (for quantitative data) and thematic analysis (for qualitative data).

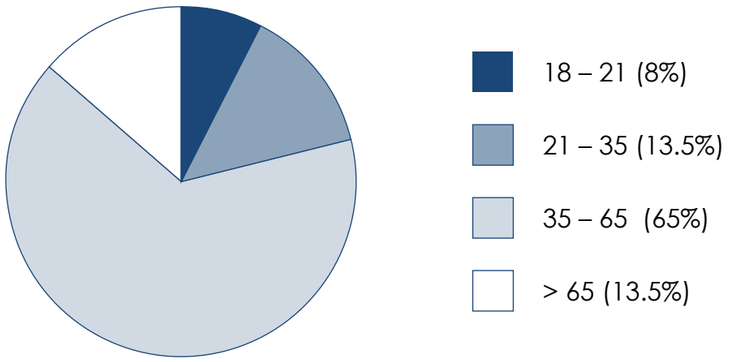
**Number of interview respondents by village**

| Village | Number of respondents |
|---|---|
| Manjekane | 10 |
| Morapaneng | 10 |
| Ditwebeleng | 11 |
| Makgopa | 21 |
| **Total** | **52** |

## Household profiles

Most respondents in our sample were between the ages of 35 and 65. For ethical reasons, we only spoke to respondents over the age of 18, but the overall population of the Fetakgomo-Tubatse Local Municipality is young. The 2016 municipal community survey showed that over 32% of people living in FTLM were under 15, and the median age in the municipality was 23.[102] The age breakdown of respondents is captured in the graph on the page that follows.

**Proportion of respondents by age**




Most respondents in our sample identified as women. Twenty-one respondents identified as male and thirty-one as female. According to the 2022 census, 52% of the population of the municipality identifies as female and 48% as male.[103]

## Housing

Most respondents said their homes were owned by members of the household, and roughly 33% of respondents were occupying their homes rent-free. According to municipal data, 82.4% of the inhabitants of FLTM live in their own dwellings and the vast majority (86.2%) live in formal dwellings made up of either brick, concrete or block.[104]

## Income and employment

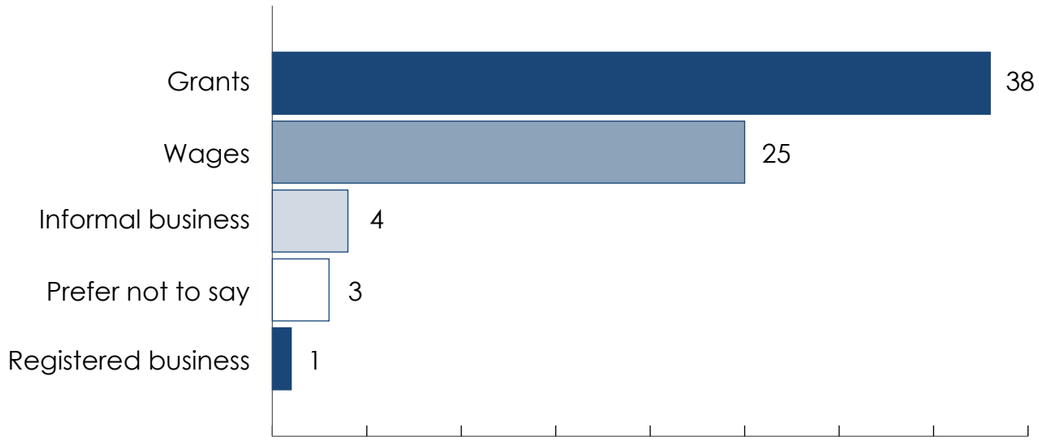
Most households in our survey receive social grants as their source of income, with salaries and wages being the second most common form of household income amongst our sample. Mostly, this is a rural population living below the food poverty line (R796 per person in 2024).[105] In 2021, the unemployment rate in FTLM was 61%, not including unemployed but discouraged workers. Census data shows that only 19% of the working-age population in FTLM were employed in 2021.[106] Most respondents in our survey reported that their average monthly household income was in the R1,601 – R3,200 band. According to municipal reports on annual household income in FTLM, the median household has a monthly income of roughly R1,200 – or R14,600 annually.[107] Fetakgomo-Tubatse experienced the highest levels of poverty in the Sekhukhune District in 2016, with over 30% of those experiencing multidimensional poverty in the district residing in FLTM.

This means that most households in this survey would be categorised as 'indigent', qualifying for free basic electricity and other essential services such as water and sewerage. The criteria for indigence are developed by each municipality and in the Sekhukhune District Municipality – in order to qualify as an indigent household – the gross joint monthly income of all occupants over 18 years and residing on the same premises on a full-time basis must not exceed the pension grant as determined by



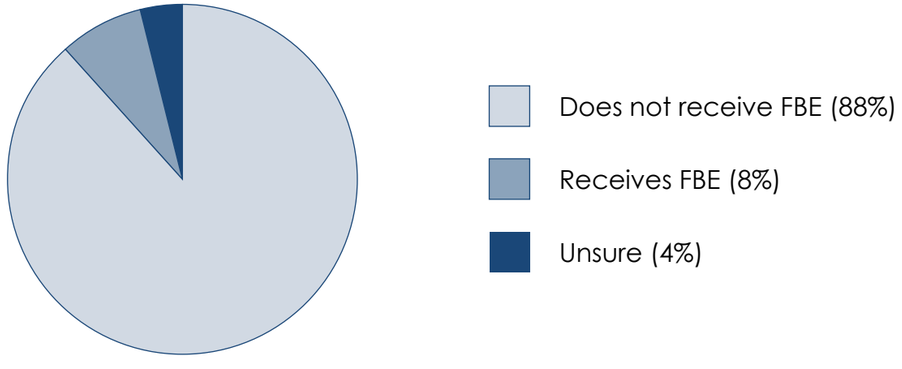
the government (R2,120 – R2,140).[108] Where more than two occupants receive an old-age pension grant, the threshold becomes twice the monthly old-age pension grant (R4,240 – R4,280).[109] The average household in FTLM would qualify for FBE using these criteria, but access to essential services remains challenging. Only 23.7% of households have flush toilets connected to sewerage, 21.3% have weekly refuse removal, and 24.2% have piped water inside the dwelling.[110]

**Household income sources**




In their 2024/2025 IDP document, the FTLM indicates that 2,000 Indigent households are currently receiving FBE, and they have a target of adding 500 more households to this total by the end of the fiscal year.[111] FLTM also plans to work with mines as private funding partners to develop an indigent Pilot Solar Project for 3,000 indigent households over three years.[112] It is important to note that neither the Municipality nor Eskom could depend on revenue from these impoverished villages. They are the target population for free basic electricity. With this in mind, a 500-household outreach target is arguably not ambitious enough.

**Proportion of households receiving Free Basic Electricity (FBE)**



## Energy access and consumption

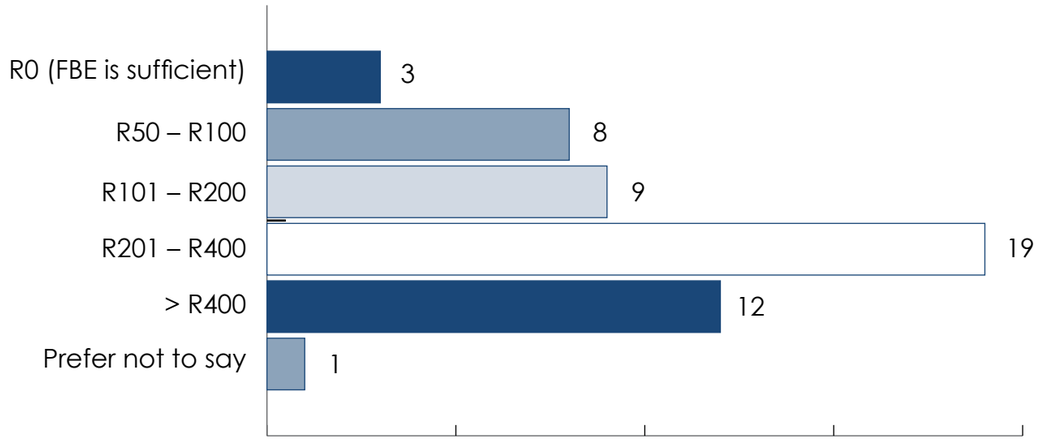
### Electricity access and usage

The Fetakgomo-Tubatse Local Municipality has a relatively high electricity access rate, with 91.8% of households accessing electricity for lighting. In our sample, only one respondent reported not having an electricity connection, and 45 households had had a connection for ten or more years. The most commonly used appliances in surveyed households were cell phones, refrigerators, electric stoves/ovens, irons and televisions. In addition to electricity, 48 of the 52 households surveyed indicated that burning wood was their alternative energy source.

### Electricity spending

Most participants in our survey fall within the indigent category, but only four respondents said their households were registered to receive Free Basic Electricity (FBE) for indigent households. When asked why they were not receiving FBE, most said they weren't aware of how to apply or had attempted to make an application but received no feedback. All but one respondent had been given a government pre-paid meter, and most households spent between R201 and R400 per month on electricity.

**Monthly household elecricity spend**

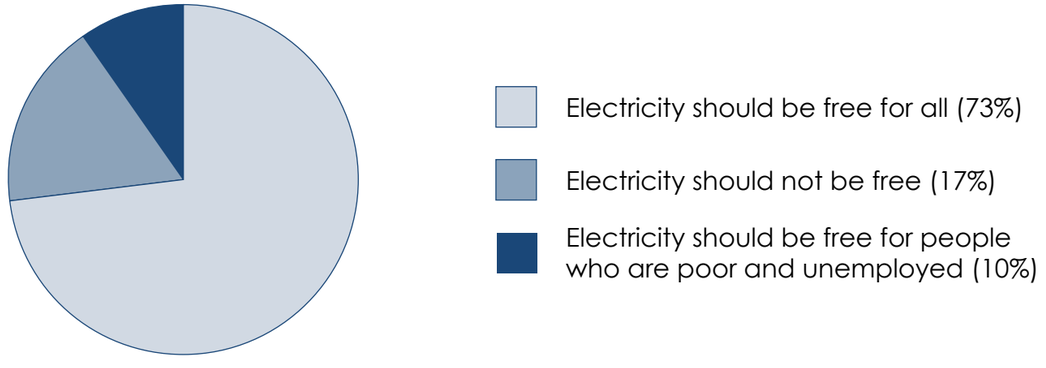



### Electricity as a basic right

Around three-quarters of participants were in favour of a universal right to electricity, some expressed a more qualified position, and a small minority disagreed with the principle. Some said the government and Anglo-American's Twickenham Platinum Mine should pay for the community's electricity. The reasons given by those who were ambivalent and those who rejected the principle included illegal connections, the idea that people would overuse or waste electricity if it were free, risks to jobs at Eskom and potential negative impacts on the broader economy.



**Respondents' views on whether electricity should be free**




The project team spoke to village residents to get a sense of prevailing perspectives on renewable energy and social ownership as a means to ensure energy security and community development. The following section reflects a sample of these views to get an indication of the socially-owned renewable energy model that would best suit community needs and preferences.

### Views on the transition from coal

When asked if and why South Africa needs to transition to renewables, most respondents said that renewables would reduce the cost of electricity, which is currently unaffordable for many households. Many respondents believe solar energy will be less expensive in the long run because solar energy is free. Most respondents stated that we need to move to renewables because of the security of energy supply. Loadshedding frustrates most respondents as it encumbers daily life, impedes the functioning of small businesses and damages appliances, which are expensive to replace and which many respondents simply cannot afford to repurchase. Interruptions to power for some appliances like refrigerators can also impact the food security of households and add a significant burden to low-income families.[113]

The reasons given in support of a just transition in our interviews are echoed in a 2023 national survey for the Presidential Climate Commission (PCC) by the Human Science Research Council (HSRC) assessing perceptions of climate change and the transition from fossil fuels. In this nationally representative survey, 41% of respondents indicated that transitioning to renewables was an opportunity to reduce electricity prices. Similarly, 51% of the survey respondents believed that a positive potential impact of the energy transition would be to reduce or end loadshedding.[114] A significant number of respondents in the HSRC/PCC survey strongly (21%) or moderately (41%) approved of the actions being taken to shift from coal to alternative energy sources. In contrast, a third of respondents were concerned that the transition away from fossil fuels would result in higher electricity

# Residents in their own words

## Q: Should electricity be free for everyone?

"Everyone must have free electricity. It doesn't matter who you are."

"Somebody must pay but it must be government or the mine"

"No, except for people who receive grants and are unemployed."

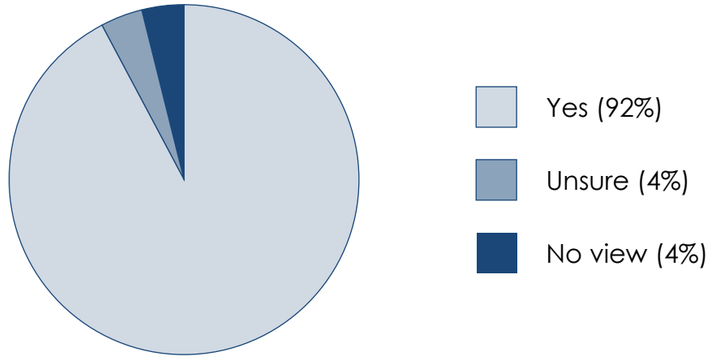
"Electricity should be received for free by those that are not working, but those that work should buy electricity."

"No it should not be free for everyone because the economy would be negatively affected."

"People always need to be managed. Whenever we pay a little for something, people will take care. If it's free we will have heaters, geysers on all night and there will be chaos."

prices. What is clear is that potential impacts on the cost of living as well as energy security are key reasons people support a just transition in South Africa. Evidence from the HSRC/PCC survey suggests that fewer people in South Africa rank environmental impacts and climate change as a priority of the transition. Similarly, in the community survey we undertook, only five respondents (10% ) mentioned the need to transition away from fossil fuels in order to prevent climate change.

**Respondents' views on whether South Africa should transition away from fossil fuels**



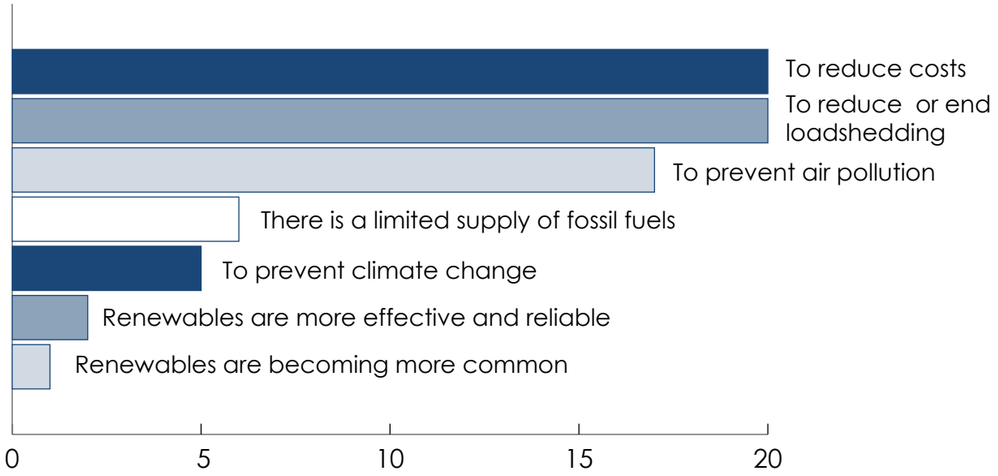

Participants were aware of a range of issues relating to the electricity crisis and the link between coal-fired power and environmental harm. Six out of 52 respondents (12%) stated that we should transition to renewables because we will eventually run out of fossil fuels like coal. It must be noted, while it is correct that coal is a non-renewable resource, in 2021 Eskom reported that South Africa still has vast reserves of coal that could last another 200 years.[115]

Overall, there appeared to be a high degree of confidence in solar energy's ability to meet needs with some of the concerns relating to the scale of the technology provided. Some respondents asserted solar was limited to assisting with only some household functions. In some instances, this was due to their personal experience with small-scale solar usage. Several respondents showed a basic understanding of how solar capturing and storage worked as well as awareness of different degrees of energy generation, depending on the particular scale and form of the technology. Overall, the responses indicated a favourable base of support to work from in relation both to knowledge and receptivity towards solar technology.

### Views on the effectiveness of renewable energy

When asked to name the renewable energy sources they were aware of, all respondents were aware of solar energy, while only one respondent named hydropower and another nuclear energy. 43 out of 52 respondents (83%) considered solar energy an appropriate energy source to meet their household needs.

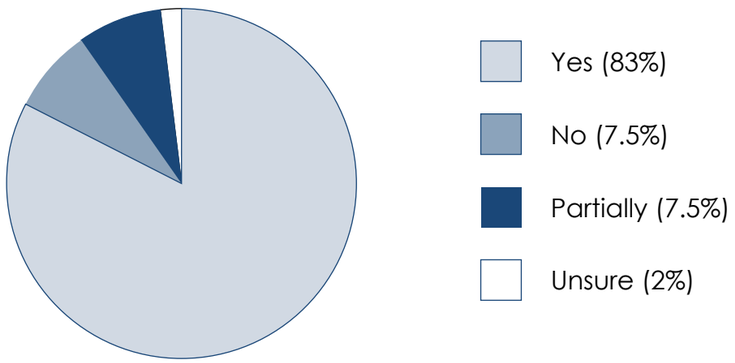
**Respondents' reasons to transition away from fossil fuels**




Respondents referred to the efficacy of solar technology and its potential affordability because of abundant free energy from the sun, particularly in this region.[116] This insight is echoed by studies that show Limpopo province has favourable levels of solar radiation for energy use.

A number of respondents considered that solar energy could only meet some but not all household needs and understood that the ability of solar to meet household needs was dependent on the number of the panels and battery storage, i.e. the scale of the installation.

**Residents' views on whether solar energy can meet household energy needs such as lighting, cooking and heating**






# Residents in their own words

## Q: Can renewable energy sources meet your household needs?

"It can meet the needs because we can cook and light with solar energy."

"We won't experience loadsheddding and it can make our life better. For lighting, cooking and heating, it can meet our needs."

"Yes but it will depend on how much solar we will be having for the community."

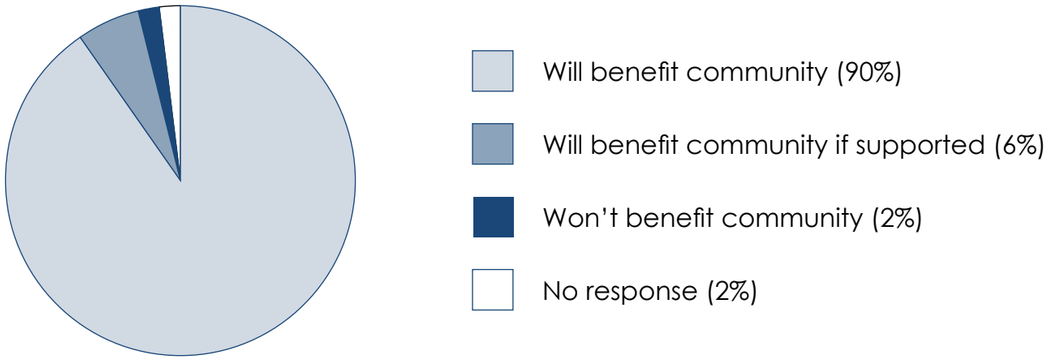
My experience is that the solar panels will not be enough."

"I was using solar before but it was not strong enough to power everything. It was too small. But I've been to some places where they use solar during load shedding and it helps."

## Views on the benefits of community-owned renewable energy

A large majority of respondents thought that community-owned renewable energy was feasible and would benefit the community. Some were concerned about maintenance and support but explained that they thought it would benefit the community if it was supported by the mine or government. One of the participants gave a more qualified answer: 'If there are community members that are trained/ qualified to do electricity generation/supply – yes the community will benefit.' The most common benefits related to the potential to generate income with participants variously mentioning sales to Eskom, the municipality and companies.

**Respondents' views on community generating and supplying electricity**




Also relatively common were perceptions that it would enable the community to exercise control, with some of such responses also seeing social ownership as enabling the community to solve issues such as loadshedding with some of these referring to Eskom not caring about whether the community has electricity. A few also perceived that it could be used to create jobs. The reason provided by one participant who answered in the negative was that there would be no-one to maintain the facilities. This points to the importance of obtaining the buy-in of Eskom and local government to ensure the project can be maintained over the long term even if mining companies stop investing.

Respondents were asked where they would wish to place community-owned renewable energy and why if it were to be installed in the village. The majority of participants favoured a central location over individual households or property. A significant minority of participants favoured it being placed either in individual households or on family farms. The predominant reasoning in favour of either central/public or household/private locations was the safety and security of the solar infrastructure and the potential of job creation at a central location.



# Residents in their own words

**Q: Would the community benefit from generating and supplying its own electricity?**

"Yes. Because the control will be on us. Things like loadshedding won't be there anymore."

"Yes we will save the units to sell to Eskom and the Municipality."

"Yes, because it will create more jobs for our children. We will make a commission or profit from those who we are going to supply."

"If there are community members that are trained/qualified to do electricity generation/supply - yes the community will benefit."

"No, We are not going to benefit because there is no one to maintain it."

# Residents in their own words

## Q: If renewable energy sources were to be built, where would you wish to place them?

"The solar must be put in one place so that they are not able to steal the panels from roofs."

"It can be built in one place, where it can be secured and also provide jobs"

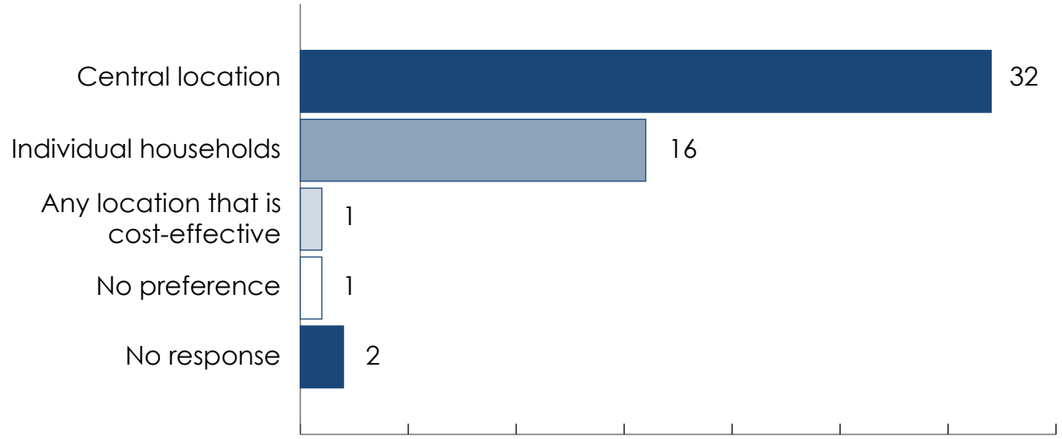
"At one place to supply all households around the community and also creates jobs for people who have security certificates to guard the place."

"Two solar panels per house so we can take care of it. It's more secure."

"Every house should have solar; because in our household we will take responsibility."

The majority thought a central site would be easier to secure with some respondents stating it would be easier for the community as a whole to monitor. Out of those in favour of a public/central location, a few cited the potential to serve as a centre for job creation or development and one also cited lower costs of a centralised installation. A few sites mentioned include near a mine's plant; the office of the Traditional council; the mall or schools in the area. A significant minority said panels on houses would be the preference, either because a central/public location will attract crime or because individual households will have an incentive to secure their own installation.

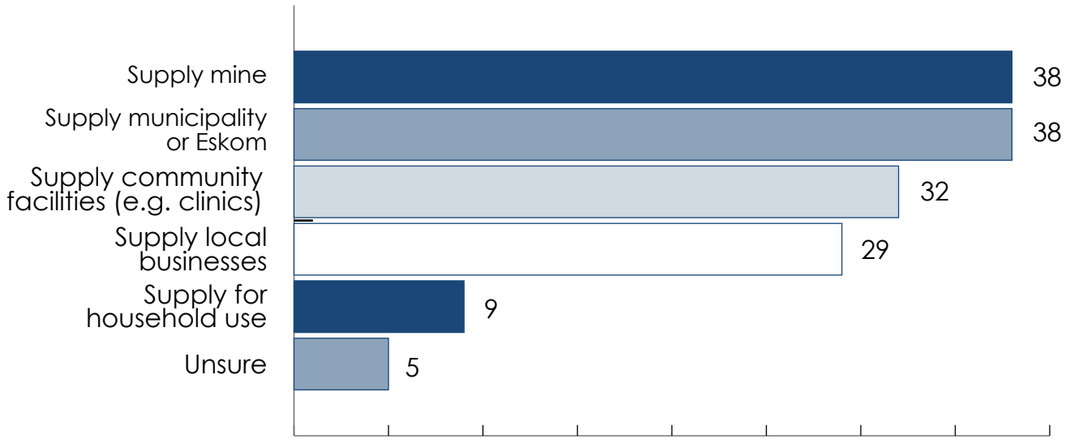
**Respondents' views on where in the community renewable energy sources should be installed**




The hope for job creation and income-generation in our survey mirrors findings in the HSRC/PCC survey. In this nationally representative sample of people in South Africa, participants were asked to identify the policies that should be implemented to help address the potential job losses in the transition away from fossil fuels. 78% said that we need policies to improve education to help people find jobs in new sectors; 77% said they need policies to support local businesses and create job opportunities in affected areas; while 76% said we need policies to help women, youth and vulnerable groups find jobs.

The need for jobs and income generation is not surprising given the high unemployment and poverty rates in the area described above. When asked what they would want to do with any surplus energy, 38 of our respondents said they would supply the mine or the municipality or Eskom for a profit. When asked about what ownership respondents preferred, 44 participants said that community trusts were best suited for community ownership of renewable energy. One of the respondents, who expressed no preference, stated as the reason that they had not seen the existing trust do anything.

**Respondents' views on what should be done with surplus community-owned renewable energy**




## Views on community development and the mines

More than half of respondents thought that the mine in the area had not done anything to improve conditions in the community. Several participants did not expand on this point but unemployment, access to water and poor state of roads were the most common reasons cited. School infrastructure was the most common example cited of something mines had done. 16 respondents thought that the mine had improved conditions in one way or another.

## Experiences and views on the pathways to development

In discussing how village ambitions and demands have been realised in the past, respondents explained that various pathways have been used. A number of respondents explained that typically a community leader is elected in a mass meeting or community forum and they are given a mandate to take the meeting demands to the mine or Municipality. A Community Engagement Forum (CEF) has been set up where elected representatives from the surrounding communities engage with the mine. The main vehicle to get demands met are the social labour plans (SLP) where the CEF can give input. One respondent mentioned the municipality's Integrated Development Plan as a way for the community to give input on what must be done but that this has proven to be ineffective. A number of respondents complained about unsatisfactory processes and lack of meaningful consultation from government and the surrounding mines. Other methods mentioned include writing a letter with support from traditional authorities or getting support from social movements like SCMAC.

To get a sense of community development priorities, we asked respondents to imagine they had R1 billion to spend on the community and what they would use it on first. Access to water emerged as one of the main issues in the community



that needed to be addressed with 32 respondents citing it as a priority. Another high priority was roads with 32 respondents mentioning paving or road upgrades. Healthcare facilities (i.e. clinics) was another high priority with 18 respondents citing it as a priority.

Job creation or support to businesses also emerged as a priority with 16 respondents making reference to it. A variety of business types were identified with poultry farming being the most mentioned and shops, internet cafes and so on being mentioned by a few. Internet access was also mentioned by several participants with eight participants mentioning either Wi-Fi or a network aerial. Interestingly none of the participants from the village of Ditwebeleng mentioned improved internet or phone connectivity as a priority.

**Community priorities**

| Priority area | Number of respondents | Percentage |
|---|---|---|
| Tarred roads | 32 | 62% |
| Water access | 32 | 62% |
| A local clinic | 18 | 35% |
| Projects to develop skills and support job creation | 16 | 31% |
| Internet and network access | 14 | 27% |
| Farming projects to support livelihoods and jobs | 12 | 23% |
| Electricity for those who need it | 7 | 13% |
| Renewable energy | 7 | 13% |
| Streetlights | 6 | 12% |
| Apollo lights | 5 | 10% |
| Early childhood development | 4 | 8% |
| Housing | 3 | 6% |
| A library | 3 | 6% |
| Recreation facilities | 3 | 6% |
| Support for vulnerable children | 3 | 6% |
| Infrastructure (e.g. bridges) | 2 | 4% |
| Public toilets | 2 | 4% |
| A community hall | 1 | 2% |
| Old age home | 1 | 2% |
| Refuse bins in every street | 1 | 2% |
| Taps for each yard | 1 | 2% |

It is noteworthy that the services most needed are all government responsibilities – water, roads and health care. These should not be paid for by 'development initiatives' from outside as they are essential services.

# Residents in their own words

## Q: Has the mine done anything to improve conditions in your community?

"The mine provided employment for some people in the community."

"The mine has built me a house."

"Mine has never done anything for us. Besides building schools. They are now failing to build or renew the road."

"The mine was supposed to do many things and not just a road. They should have given us water and provided another place to graze land. They did not meet their SLPs."

"The mine does not keep their promises."

"The mine has never done anything for the community."

The interviews revealed a relatively high familiarity with solar technology, a positive orientation towards solar energy, varying degrees of knowledge about the technical and practical aspects of solar technology including the varying generating capacities and pros and cons of a rooftop versus a central location, i.e. mini-grid. There was a largely favourable view of electricity as a right/public good (though not universally shared) and a receptivity to community ownership of renewable energy.

It is important that while knowledge of the broader causes of the energy and climate crises was limited, solar technology was familiar to many. Some important questions were also asked – including how to ensure that, after initial investment, the facilities are maintained. The interviews did not elicit clear views regarding how collective governance (of socially-owned renewable energy) would work, which indicates the need for workshopping in the next phase of the project, as well as a central role for the SCMAC core team and project team in developing a basic governance model that the community can give inputs on. There was largely a favouring of the community trust model though it was unclear if this was simply because it was more familiar to participants than, for example, co-operatives.

## Key themes emerging from the responses

### 1. Electricity as a basic right

The majority of respondents argue that electricity should be free for everyone, highlighting its essential role in daily life. They emphasise that it is a basic need and should not be a financial burden, especially for those without a steady income, like pensioners, the unemployed or those relying on social grants. Some responses suggest that the government or private entities like mines, should bear the cost, rather than communities. There is a call for equity, ensuring that no one is excluded from free electricity based on financial status or location.

### 2. Support for the poor and unemployed

A significant number of respondents agree that electricity should be free for those who cannot afford it. They argue that people who are employed and financially stable should pay, but those struggling financially should be exempted. A few respondents oppose the idea of free electricity for everyone. They argue that people might waste electricity if it is free, leading to inefficiency. Others worry about the impact on the economy and argue that only pensioners, the disabled and certain vulnerable groups should primarily receive free electricity.

### 3. Potential of solar energy for household needs

Many respondents express confidence in solar energy as a viable alternative to grid electricity. They believe it can meet their needs for lighting, cooking and heating, especially given the abundant sunlight in their areas. Some even mention the potential for solar to reduce reliance on the national grid, particularly during loadshedding. heating, especially given the abundant sunlight in their areas. Some even mention the potential for solar to reduce reliance on the national grid, particularly during loadshedding.

However, there are mixed views on the scale at which solar energy can meet household needs. While some think it will work effectively for basic household needs, others are concerned about its capacity, especially for larger appliances like refrigerators and stoves. Cost is a significant barrier, as some respondents feel that solar panels are too expensive for them to afford, despite recognising the long-term savings.

### 4. Concerns about energy supply and loadshedding

Loadshedding and unreliable electricity supply are major frustrations. Respondents describe damage to appliances and property due to power outages, and some express a lack of confidence in Eskom's ability to provide consistent electricity. Many see solar energy as a solution to avoid loadshedding and reduce reliance on the national grid. The appeal of solar energy lies in its ability to provide a more reliable and cost-effective energy source.

### 5. Discontent with government and mine consultation processes

A number of respondents feel that the government and local mines are not meaningfully engaging with communities. They mention lack of consultation, failure to implement community suggestions and the absence of accountability in decision-making processes. There is a call for more inclusive governance, where community voices are heard and ideas are translated into real projects, such as infrastructure development and access to energy.

### 6. Economic considerations

Several respondents emphasise the high costs of traditional electricity and express a preference for more affordable renewable energy options. They note that the ongoing cost of electricity is a strain on their finances, particularly for those living on limited incomes. Solar energy is seen as a more economical choice in the long run, despite the initial investment costs, due to its potential to eliminate electricity bills and avoid the impact of loadshedding.

### 7. Support for community-owned renewable energy

Respondents viewed community-owned renewable energy as a good opportunity to ensure secure electricity supply, particularly during loadshedding, and saw the advantages of the community having power to oversee, maintain and secure their own solar installations. There were concerns about their lack of capital and the skills needed to maintain and repair installations and some respondents said they think it would be a viable option if government and the mines were able to support the community, presumably with capital and training. A central mini-grid option in each village was favoured by most respondents as they thought this would be more secure and allow for some job creation, even just for security guards to keep the installation safe. These responses collectively reflect a strong desire for equitable, affordable, and sustainable energy solutions, with a particular emphasis on solar energy as a viable alternative to the current grid-based system. Concerns about the environmental impact of coal, the economic burden of electricity costs and the reliability of the power supply are central to the conversation.



# Stakeholder roles and respondibilities in Fetakgomo-Tubatse Local Municipality

Sekhukhune's renewable energy landscape is influenced by a range of stakeholders, including local government, community organisations, mines and other private sector entities, and traditional leadership. These stakeholders play important roles in shaping the region's approach to renewable energy, but their efforts often face challenges in alignment and execution. This chapter delves into the existing roles and responsibilities of these stakeholders, identifies gaps that hinder progress and explores opportunities for advancing social ownership of renewable energy in Fetakgomo-Tubatse Local Municipality (FTLM).

## Government

### Local government

Local government has been identified as well-placed as one of the primary drivers of climate change adaptation. For example, the CSIR has shown that our current legislative framework for climate adaptation includes various mechanisms that guide or regulate climate change adaptation at the local level, including the Disaster Management Amendment Act (2105), the Spatial Planning and Land Use Management Act (2013) and the Climate Change Act (2024), amongst others.[117]

The Fetakgomo-Tubatse Local Municipality (FTLM) serves as a critical stakeholder in driving renewable energy initiatives. Many of the municipality's stated development goals in the 2024/2025 Integrated Development Plan align with the goals of this project. These include facilitating infrastructure investment and development as well as delivering basic services such as water, sanitation and electricity. The Sekhukhune District Municipality, which also includes the Fetakgomo-Tubatse, Makhuduthamaga, Ephraim Mogale and Elias Motsaledi local municipalities, is responsible for ensuring the alignment of IDPs in the District.[118]

The Municipality has stated a major challenge is the need to electrify older villages. Approximately 83% of the residents of FTLM (107,770 households) have

access to electricity while 12.8% (over 28,000 households) are not yet electrified.[119] The municipality recently introduced the Operation Mabone programme with an aim to accelerate household connections and to eradicate the backlog, but this project has been paused after fallout from the contracted engineering company allegedly overcharging the municipality by R76 million. The State's anti-corruption, forensic investigation and litigation agency, the Special Investigating Unit (SIU), are currently pursuing legal action against the company to reclaim the money.[120]

While the FTLM is currently not the electricity authority nor provider, the municipality is responsible for the co-ordination of service provision by Eskom. They are responsible for ensuring communities are consulted and priorities are compiled. As a result of Eskom's capacity constraints and high settlement rates due to the mining activities in the region, plans are underway for the municipality to act as an electricity authority in the near future. The municipality has been granted a distribution licence by Eskom on all new developments and, according to its most recent reports, is currently awaiting a licence from NERSA.[121] The stated aims are to increase municipal revenue, resolve electricity capacity constraint issues in the municipality and support electricity distribution to local households.

An important avenue for community participation in local government is through input into the strategic plan to promote economic and social development – the Integrated Development Plan (IDP). The IDP sets out a five-year plan for the municipality, which is reviewed each year by the municipal council. There is a statutory obligation to ensure meaningful public participation in the IDP. There is a greater likelihood of local government support and collaboration if community-owned renewable energy projects were included in the IDP. Through the Integrated Development Plan (IDP), FTLM can focus on aligning renewable energy projects with developmental priorities while addressing historical challenges such as corruption, which has eroded public trust. Key contacts in this process would include the IDP manager, the IDP representative forum, and the Infrastructure and Basic Delivery IDP working group. Other key contacts for the project include local government staff, like the stakeholder management officer and the municipal manager.

Residents' primary contact in the municipality is with their ward and proportional representative (PR) councillors, who are mandated by law to support public participation and to represent the interests of their communities.[122] Elected councillors could assist by placing community-owned renewable energy on the municipal council agenda, and getting support from these representatives will be key to ensuring support and collaboration from the municipality for the project.

Meeting with and participating in ward committees is another avenue for community oversight and arguing for community project priorities. Ward committees face resource and influence limitations that hinder their ability to advocate for community interests effectively.[123] Community members have a role in holding ward committees accountable and ensuring the municipal council takes up the issues brought forward by the ward committees. There are ward committee structures in each of the 39 wards in the municipality, and they report to the Council once a quarter.[124] Committees are meant to work collaboratively with residents to identify, refer and report on ward issues to ensure responsive planning, budgeting and implementation processes.[125]



The ANC have the majority of seats in the municipal council, and the EFF are the biggest opposition party. Nationally, the ANC has made it clear that they are not opposed to continued reliance on coal for the foreseeable future but would support diversifying the energy mix to include renewables.[126] They have implemented the REIPPP programme and have argued that the transition to renewable energy requires significant private sector investment, also securing Just Energy Transition Investment Plan (JET-IP) funding from the international community, primarily in the form of concessional and commercial loans.[127]

The EFF alternatively proposes establishing an internal renewable energy division within Eskom focusing on solar, wind, and hydro-energy. While Eskom currently operates as a private sector entity with the state as its sole shareholder, including these functions within the national utility, is a step in the right direction for a public goods approach to renewable energy.

The majority party's commitment to a private-sector-led transition to renewables represents a risk to community-owned renewable energy and this project. Elected councillors within the municipal council, comprising representatives from political parties like the ANC and EFF, are ultimately responsible for representing community interests and ensuring accountability in development projects. Political fragmentation, however, often impedes consensus-building, creating challenges in effectively implementing energy initiatives that benefit the community. It is in their interests for community groups to identify supportive political parties or political actors and work with them, particularly in the run-up to the 2026 local elections.

According to the *Climate Change Adaptation Action Plan* for the Fetakgomo-Tubatse Local Municipality, two high-priority goals for the municipality align with the aims of this project. The action plan calls on local government to 'promote the use of renewable energy technologies in agricultural, mining, as well as beneficiation industries to reduce carbon emissions'.[128] The plan states that the Municipality must advocate for and facilitate the adoption of renewable energy technologies throughout key economic sectors in the area.[129]

A second high-priority goal relevant to the aims of this project is to 'develop climate-resilient, low-carbon, diverse and inclusive rural economies, especially within the mining and agricultural (beneficiation) sectors, that are socially responsible, environmentally sustainable and that provides job opportunities for unskilled, semi-skilled and skilled local residents'.[130] This would involve implementing skills training programmes aimed at different levels to facilitate diverse job creation; developing policies to support the growth of SMMEs; introducing economic diversification initiatives to develop new industries and establishing partnerships with local communities, businesses, and NGOs.[131]

Collaboration between communities and the Municipality for community-owned renewable energy can lead to increased municipal revenue, greater community oversight to prevent corruption, training and job creation opportunities to support community development if grant funding can be secured and pressure is placed on national government and Eskom to support community and municipally-owned renewable energy projects.

## Traditional leadership

The Limpopo province hosts 203 traditional communities, and 168 senior traditional leaders are recognised by the state. The Bapedi nation represents diverse cultural and linguistic elements and communities, each with its own recognisable traditional leader (Magoshi) under one principal traditional leader – the Paramount Chief. The Bapedi people have an officially recognised paramountcy, but after the death of Paramount Chief Kgagudi Kenneth Sekhukhune, a legal battle ensued over who should be the next paramount leader. In 2022, the Polokwane High Court ruled that the appointment of Queen Mother Manyaku Thulare was unlawful and that her stepson, Prince Morwamohube Ernest Thulare, was the rightful regent to assume the throne.[132] The Queen mother is now challenging the ruling at the Supreme Court of Appeals.

In November 2024, Ngoako Ramatlhodi was appointed as the first traditional prime minister with a mandate to ensure local beneficiation of valuable raw minerals in Limpopo and improve relations between the government and the royal house and nation.[133] This is a controversial appointment by the Queen as the dispute over the throne is still in progress.[134] There are seventy officially recognised senior traditional leaders (Magoshi) within the regent's area of jurisdiction in Sekhukhune and, according to the Municipality, 23 of these traditional councils reside within the FTLM.[135]

Magoshi play an important role in the community and advocate for community development within local government structures alongside ward councillors in municipal leadership and alongside residents in the local IDP Representative Forum.[136] Meeting and ensuring the support of the Magoshi in the area will be key for a community-owned renewable energy project as a Kgoshi may be able to facilitate further community engagement and consensus on renewable energy initiatives and support engagements with mines and the municipality on getting support for the project and ensuring the equitable distribution of benefits.

## Provincial and national government

Provincial and national government departments and agencies also play pivotal roles in advancing renewable energy in Sekhukhune. The South African Constitution requires the equitable division of revenue raised nationally among the different spheres of government. As such, one of the key responsibilities of the national government is to allocate funds for municipal functions. FTLM raises revenue primarily through property rates, refuse removal, licenses and permits and national government. To supplement this, municipalities like FTLM apply for grants from the national government to render services.[137] A tactic for funding community-owned renewable energy is to apply for municipal grants from the National Treasury for renewable energy projects.

The Limpopo Department for Economic Development, Environment, and Tourism (LEDET) coordinates provincial energy policy and promotes investments in renewable energy. It will be vital for local efforts to align with provincial goals, and as such, coordination with the provincial government is needed to foster a cohesive approach to energy development. The department has also committed to establishing a Limpopo Rural Economy and Cooperatives Plan, which would support inclusive economic development for rural communities.[138]

The Limpopo Economic Development Agency (LEDA) is a public institution established as the policy-implementing arm of LEDET.[139] Its stated aim is to 'implement integrated economic development initiatives in Limpopo, through accelerated industrial diversification; increased levels of trade and investment and by developing sustainable enterprises'.[140] LEDA has stated that it aims to support renewable energy development by attracting funding and technical expertise.

The Department of Public Service and Administration is responsible for a national programme for the Community Development Worker Programme at the provincial level. At the provincial level, the Department of Cooperative Governance and Traditional Affairs (COGTA) manages the implementation of the programme. Community Development Workers (CDW) are special public servants who link communities with government services and programmes. CDWs are also involved in ward committee structures in the FLTM. Linking with this programme could support the development of renewable energy for communities by helping them access available government services or identify which services are not yet available and should be advocated for.[141]

The Department of Mineral and Petroleum Resources is responsible for playing a central role in monitoring the implementation of social labour plans of mines and intervening if they do not comply with the Mineral and Petroleum Resources Development Act and fail to deliver on the promises made in their SLPs. The DMRE has the power to issue notices to companies or even suspend or cancel their mining rights if they fail to comply. The DMRE's role in ensuring compliance with SLPs and facilitating national energy planning means this department will be a key stakeholder in advancing a programme of community-owned renewable energy in the region.

## Eskom

Eskom is the licence holder for electricity distribution in Fetakgomo-Tubatse Local Municipality. According to the Municipality, Eskom has initiated a bulk energy project to unlock capacity for 18,657 additional households in the municipality. We argue that the widespread implementation of renewable energy will necessarily rely on transforming Eskom into a national renewable energy utility.

To facilitate socially-owned renewable energy, Eskom would need to be mandated to support these projects with technical support and infrastructure for renewable energy projects to connect to the national grid, streamlining the application and approval processes for community-owned projects, entering into agreements to purchase surplus electricity generated by community projects; offering training programmes including technical training on grid integration, renewable energy technologies, and project management. They are also best placed to assist in feasibility studies, system design, and maintenance strategies. Ideally, Eskom would fund these projects or collaborate with government entities, international donors, and development finance institutions to provide funding for community projects.

## Communities

### Community organisations

As already discussed, the villages around Twickenham Mine are characterised by high unemployment rates, limited access to essential services, and dependency on mining-related activities for livelihoods which are patterns in the municipality as a whole. These communities face persistent socio-economic challenges, including inadequate infrastructure, insufficient educational facilities, and limited access to healthcare. Renewable energy projects in these areas, such as solar and battery storage solutions, have the potential to address some of these gaps by providing reliable electricity and creating opportunities for community-led enterprises. In their discussion of economic strengths, weaknesses, threats and opportunities in the region, they identified the major threats to economic development, including the unavailability of skills needed in the mines from the local community, the high rate of unemployment and poverty resulting in increased crime, limited access to telecommunication infrastructure; shortages of skills; low levels of education; inadequate beneficiation of the local community from economic activities in the area and a backlog in basic infrastructure.

Community leaders and forums in the region are active in ensuring equitable benefits, training opportunities, and local employment opportunities from mining activities and municipal projects. The FLTM have identified the commitment of community leaders looking to improve the economy as a strength in the region. They argue that other strengths in the region are the many untapped opportunities for economic development and its youthful population. Young people have the potential to drive change, develop skills and create more opportunities in the municipality.

Local forums like the Community Engagement Forum (CEF) at Twickenham Platinum Mine have been established so that community leaders can have a meaningful say in the socio-economic impact of its operations.[142] Prior research conducted with communities near a number of mining operations in the municipality[143] as well as a hearing Report by the South African Human Rights Commission[144] on (country-wide) issues of mining-affected communities both revealed a perception amongst communities that these forums were not effective in advancing their environmental and socio-economic rights and ensuring transparency and accountability and sometimes end up serving the interests of the mine above that of the communities.

### Trade unions

Trade unions representing workers in the mining and other industries in the municipality are key stakeholders in a project for community-owned renewable energy in FTLM. Major unions active in the area include, amongst others, the National Union of Mine Workers (NUM), the Association of Mine Workers and Construction Union (AMCU), the National Union of Metal Workers and the General Industries Workers of Union (GIWUSA).[145] Reaching out to these unions at branch, regional and national levels would allow communities to link with workers who are able to contribute to and benefit from community-owned or worker-owned renewable energy projects.



These unions have also campaigned for improved working and living conditions for miners and their communities and so are well-placed for community mobilisation to ensure urgent and ambitious energy projects that, first and foremost, benefit the working class and rural poor. Many unions have been critical of a market-driven transition to renewables as an effort from international neo-imperialist interests to assume control of local economic development in order to extract wealth and natural resources, with little regard for the needs of people living in South Africa.[146]

A project rooted in an alternative approach, calling for social ownership of renewable energy and meaningful democratic processes led by communities, is well aligned with calls made by unions for a transition in the interests of the working class.[147] Unionised workers also stand to benefit from affordable clean energy, and campaigning on this issue can bolster active community support for other important campaigns like ensuring workers earn a living wage or ending outsourcing and labour broking.

## Private sector

### Mines

Mining companies across the country are implementing renewable energy initiatives to reduce operational costs and environmental impact.[148] However, ensuring that community members share in the benefits of these projects remains an ongoing challenge. In FTLM, communities have demanded that mines in the region support skills development programs, entrepreneurship training, and the establishment of cooperatives to foster economic self-reliance but have complained about a lack of transparency and broken promises in the past.[149]

Greater emphasis on participatory approaches and benefit-sharing mechanisms is critical to ensuring that the communities fully realise the advantages of mining operations in the area. Investing in renewable energy projects can have a mutually beneficial impact on communities and mines, with clean energy production supporting community and economic sustainability in areas where they operate. This is particularly important for mining sustainability as unemployment, poverty and inequality in the region fuel crime and unauthorised mining in the area, which can be costly to mines.[150]

The poverty of communities in mining areas is a stark reflection of how massively profitable mineral exploitation does not have any positive correlation with local development.[151] Mining companies should be designing and implementing programmes to ensure communities and workers benefit from mining operations and the community is developed as a result. The mining industry in South Africa has a long history of both benefiting from and negatively impacting the communities in which it operates. These impacts have created a moral and legal imperative for mining companies to invest in community development and mitigate the negative effects of their operations. Their role in designing and implementing social and labour plans should not be seen as a rubber-stamping exercise but as a way to transform communities. These plans are a requirement for mining rights and must outline initiatives for job creation, skills development and community infrastructure.

Investing in community-owned renewable energy installations and training can have a major impact on long-term socio-economic development in the region and be an opportunity for mines to contribute meaningfully to the community.

### Fetakgomo-Tubatse Special Economic Zone

The Fetakgomo-Tubatse Industrial Park in Sekhukhune has been earmarked for the development of the Fetakgomo-Tubatse Special Economic Zone. The stated goal of the SEZ is to advance a renewable energy economy in the region. It is situated roughly 50 km away from the Twickenham mine and is an initiative by the Limpopo provincial government to stimulate rapid economic growth and job creation as mining activity in the region increases. The stated aim is to spearhead renewable energy projects such as solar, battery, biodiesel and hydrogen facilities to support mining and industrial operations.

Through partnerships with different investment and development entities, advocates for the FTSEZ argue it will scale up renewable energy projects, integrate community benefits and create local employment opportunities. Private sector involvement, such as Samancor Chrome's development of a 60 MW solar photovoltaic (PV) plant, underscores the industrial potential of renewable energy. Projects like this demonstrate the feasibility of large-scale renewable solutions while offering opportunities to share infrastructure and benefits with surrounding communities. However, SEZs have mixed results in South Africa and have not led to the economic development and job creation that was promised.[152] A key feature of this project should be direct investment in local communities, development of infrastructure and implementation of training programmes so that there is a positive spillover from multinational corporations to local SMMEs and communities in technical and administrative aspects of production.[153]

## Gaps and challenges

Despite the involvement of diverse stakeholders, several gaps hinder the realisation of social ownership in renewable energy. Co-ordination deficits between municipal, traditional and private sector stakeholders often lead to misalignment and inefficiencies. The lack of clear frameworks for community involvement and benefit-sharing exacerbates these challenges. Government service delivery failures create massive challenges for the community and community development projects. Capacity building remains a critical challenge, as local expertise in renewable energy technologies is limited. Training programmes for community members are not yet sufficient, which restricts their ability to actively participate in or benefit from renewable energy initiatives.

## Opportunities

To address these challenges, integrated planning is essential. To drive this project and a broader campaign for socially-owned renewable energy in mining-affected communities, community organisations must play a central role in multi-stakeholder platforms to align priorities across government, industry and communities. Strengthening the role of Ward Committees and the IDP forums can ensure more cohesive renewable energy planning and implementation.



Transparency and accountability must be prioritised to rebuild trust in municipal governance. Implementing anti-corruption measures and regularly publishing progress reports on renewable energy initiatives can enhance public confidence and project outcomes. Empowering communities is another critical opportunity, and training programmes should be run and supported by Eskom and mines in the area. We must build local capacity in renewable energy technologies, and there are many unemployed young people who are ready to do this work.

Sekhukhune's journey toward social ownership of renewable energy is fraught with challenges, but it is also marked by significant opportunities. The region's natural resources, active community forums, and proactive leadership looking to develop green industries provide a strong foundation for progress. By addressing coordination gaps, enhancing transparency, and empowering local communities, the residents of FTLM can establish a model for inclusive and sustainable energy development in South Africa.

# Recommendations

## An enabling legislative and regulatory framework required to support socially-owned renewables

The present private sector-led energy transition model needs to be replaced by a public sector-led approach by an energy utility that is democratised and subject to oversight by trade unions in the sector and communities who require adequate free basic electricity. Energy is a public good that supports the realisation of basic needs and economic life and Eskom should neither be required to show a profit nor raise private capital. An energy transition led by a democratised and adequately funded Eskom would allow the state to promote local industrialisation and job creation in the supply chain as well as the construction of transmission infrastructure while removing the need to raise tariffs to subsidise private profits of independent power producers.

A framework for supporting community- and worker-led ownership is required so that communities or workers wishing to pursue localised ownership of renewables know which steps are required to access support (in terms of resources, feasibility studies, training, etc.) and to apply to sell electricity into the grid as well as to companies in specified instances. For example, where companies have incorporated social ownership into regulated community development programmes such as social and labour plan projects.

The current legislative and regulatory framework – particularly Schedule 2 of the Electricity Regulation Act – was designed to promote private sector investment and ease pressure on the national grid. However, it does not adequately cater to non-commercial, socially owned renewable energy models. As a result, it unintentionally discourages community participation in the energy transition.

To enable the inclusion of small-scale, community-owned energy projects in municipal feed-in tariff schemes, legislative reform is essential. This should include amendments to Schedule 2 that explicitly allow licensed or exempt community-based producers to enter into power purchase agreements (PPAs) with municipalities. A dedicated policy mechanism may also be needed to support and guide the implementation of such models on local level.

## Public financing of community and worker owned renewables required

Community stokvels have the potential to be used to invest in community development initiatives such as community-owned renewable energy. For example, a 2024 Ipsos market study revealed that SA's stokvel sector alone is worth R50bn, comprising more than 800,000 groups and 11-million members.[154]



Stokvels, as community-based savings and investment groups in South Africa, have significant potential to drive socially-owned renewable energy projects. They can pool resources to fund solar or wind energy initiatives, invest in renewable energy cooperatives, or provide microfinance for household-level installations, enhancing energy access and economic resilience.

Collaborating with municipalities and Independent Power Producers (IPPs), stokvels can co-finance projects aligned with the Just Energy Transition while fostering skills development for local maintenance and operation. To succeed, initiatives require policy support, awareness campaigns, and partnerships with NGOs and financial institutions to address challenges like high initial costs and limited technical knowledge.

However, given the scale of poverty, inequality and unemployment, it is not realistic to expect that all or most of the financing for the feasibility studies, infrastructure and skills development for community-owned renewable energy comes from the community. Public financing based upon a developmental mandate rather than the need to achieve a return for investors has the advantage of being able to support on terms that are more supportive.

For communities residing near mines, however, mining companies' legally binding duties to spend on local economic development projects in their social and labour plans means that they have an additional potential source of investment in socially-owned renewables.Communities should advocate for mining companies to support community-owned renewables, including community participation in the renewables value chain as part of local economic development projects.

While mining companies are legally required to implement projects for the development of communities and their employees in the form of social and labour plans, they have not contributed to significant local economic development, with piecemeal projects, not on the scale and nature capable of achieving this. Furthermore, many mining companies are involved in the renewables value chain, whether with their minerals serving as inputs in renewable energy manufacturing ('transition minerals') or, like several large companies, by investing in renewables. A community-owned renewable energy co-operative (or other suitable vehicle) is one example of a project that has potential to promote development whether by lowering energy costs of households or through sale of electricity.

## Community education and broad-based engagement essential prior to launching renewable energy projects

It is vital that community-based organisations ensure that there is broad community buy-in, an understanding of climate change, climate justice and social ownership, as well as a realistic understanding of the barriers at present for realisation. Furthermore, it is also critically important that such initiatives have broad-based benefits and are not for the ownership and benefit of local elites. Activist education is crucial. As is running a campaign to demonstrate strength and unity, to obtain the support of other communities, civil society and labour and to engage mining and government stakeholders.

# Conclusion and proposed further work

This report has traced the journey of SCMAC in building a vision for socially-owned renewable energy rooted in justice, collective ownership, and sustainable development. From initial engagements and learning exchanges to baseline surveys and model-building workshops, this process has laid a strong foundation for advancing a people-centred energy transition in mining-affected communities.

The report affirms that socially-owned renewable energy is not only a technically and economically viable alternative but a necessary counter-narrative to the dominant private sector-led model. It offers a compelling case for public sector leadership, under a democratised and adequately resourced Eskom, and calls for coherent policy, legal, and financial frameworks that support community- and worker-led renewable energy projects.

Through SCMAC's efforts, the report demonstrates how grassroots mobilisation, strategic alliances, and evidence-based advocacy can coalesce into a campaign with transformative potential. It highlights the untapped opportunity to mobilise community savings mechanisms like stokvels, the underutilised obligations of mining companies to support local development, and the power of education and organising in forging a shared vision.

Going forward, the success of this initiative – and others like it – will depend on deepening community participation, securing the necessary financial and technical support, and embedding this work within broader struggles for climate justice, energy democracy, and economic resilience. This case study offers a replicable and adaptable participatory model for other mining-affected communities across South Africa to take forward their own visions of social ownership in the energy transition.

The next phase of the SCMAC project will focus on utilising the participatory model as a basis for engaging the broader community and pursuing pre-feasibility, feasibility studies and pilot installations at a central location in each of the four villages. The ultimate aim ('the third phase') would be for a large-scale rollout of renewable energy infrastructure for communities that draws upon the insights and lessons from the pilot.



# Annexure 1: Ownership model chosen by SCMAC

## Different technologies and forms of installation

Following deliberations on the field research findings and discussion of pros and cons of various solar set ups, it was decided that the initial model to test in the pilot stage would be of a grid tied mini solar farm. This was for a number of reasons. Firstly, there is a lot of sun in the Fetakgomo-Tubatse municipality. Secondly, far more community members had a far higher level of knowledge of solar than other forms of energy such as wind or hydro-power. Thirdly, the bulk of households in the area are connected to the grid, whereas mini grids, for example, are suitable for areas without connection. Finally, the grid-tied option carries the potential to, in the future, sell electricity to the grid or wheel to companies, for example mining companies.

It was agreed that, at least at the pilot stage, installation should take place at a central point in each village identified through engagement within each village, including the traditional council. Each village would identify one or more sites but would be guided regarding suitability by the specialist conducting the pre-feasibility and feasibility studies. The main consideration for a central location was, based on the interviews and deliberation, that it would be a lot easier to provide security for a central location than each household. In addition, a central location would be perceived as being for the whole community whereas the limited number of household rooftop installations at pilot phase may be perceived as exclusionary by many, which may threaten broader buy-in and also increase chances of theft or vandalism.

## Legal ownership form

The co-operative form was ultimately chosen by the SCMAc core team, at least as the initial model, subject to broader workshopping in the community. This was in spite of the interview results indicating the community trust as the overwhelming favoured form. The SCMAC members of the core team, due to their experience of some of the local trusts, knowledge of issues in the sector more broadly and relationships with a range of communities dealing with similar areas, are very aware of the many instances of trusts that manage resources in a manner that is secretive and enriches the very few. They came to the conclusion that the co-operative model, while less familiar to the community, would be more tailor made to facilitate active community participation. They were also hopeful that through engagement

and popular education, they would be able to generate support for the model when they understood that there was more opportunity for more community members to become active as the co-operative expanded and it would be more democratically and communally run.

The basic principles the core team arrived at for the co-operative include:

- The co-operative will begin small but with the aim to expand with time in order to allow new members the necessary education and onboarding (co-operative principles, roles and responsibilities etc)
- Co-operative will have the capacity to raise funds that are necessary for the technology and the maintenance training of the technology etc.
- The co-operative must establish processes to guarantee accountability and budgets and reporting on expenditure will be transparent
- The core team acknowledged that for the co-operative model to work it will require much public education of the broader community, engagement with many of the organisations, nationally and internationally, that support co-operatives such as International Co-operative Alliance.



# Annexure 2: List of acronyms and glossary

## Acronyms

| | |
|---|---|
| **CALS** | Centre for Applied Legal Studies |
| **CJC** | Climate Justice Coalition |
| **CORE** | Community-owned renewable energy |
| **CSO** | Civil society organisation |
| **ERA** | Electricity Regulation Act |
| **LHR** | Lawyers for Human Rights |
| **IPP** | Independent power producer |
| **JET-IP** | Just energy transition investment plan |
| **MACUA / WAMUA** | Mining-Affected Communities United in Action / Women Affected by Mining United in Action |
| **MECJON-SA** | Mining and Environmental Justice Community Network of South Africa |
| **MPRDA** | Mineral and Petroleum Resources Development Act |
| **NEMA** | National Environmental Management Act |
| **NPO** | Non-profit organisation |
| **NUMSA** | National Union of Metal Workers of South Africa |
| **REIPPPP** | Renewable energy independent power producer procurement programme |
| **SCMAC** | Sekhukhune Combined Mining Affected Communities |
| **SLP** | Social and labour plan |
| **SORE** | Socially-owned renewable energy |

# Glossary

| | |
|---|---|
| **Community** | Individuals and groups from working class and oppressed sections of society who have in common significant impacts in relation to mining, climate change and other environmental justice issues |
| **Co-operatives** | 'An autonomous association of persons united voluntarily to meettheir common economic, social or cultural needs and aspirations through a jointly owned and democratically controlled enterprise organised and operated on co-operative principles'[155] |
| **Community-owned renewable energy** | Renewable energy generation facilities under the ownership, collective control of community members or workers in order to advance development and organised in co-operatives, not-for profits or other ownership form |
| **Environmental justice** | A philosophy of environmental governance that is a response to the manner in which negative environmental impacts disproportionately fall on working class and poor Black communities. It requires that the harms and benefits of activities impacting on the physical environment be equitably distributed and that vulnerable groups play a central role in decision-making regarding the environment. |
| **Fossil fuels** | 'Fuels, such as gas, coal, and oil, that were formed underground from plant and animal remains millions of years ago'.[156] Fossil fuels are by far the largest source of greenhouse emissions that cause climate change |
| **Free basic electricity** | The South African government's policy of allowing an amount of free basic electricity (maximum of 50 or 60 kilowatt hours per household per month depending on the municipality and determined to be 50 kilowatt hours per month by Eskom).[157] It is means tested and not universal which means it is only available to households earning below a certain amount which is set by local governments. It is available to households who have applied for free basic electricity and who qualify as indigent. |
| **Just transition** | The principle that the transition away from a fossil fuel economy occurs in a manner that prioritises the interests of affected communities and workers including but not limited to secure well paid jobs, energy justice and support for adaptation to impacts of climate change. |



| | |
|---|---|
| **Mine closure** | Mine Closure occurs when rehabilitation has occurred and the mining company has successfully applied for a closure certificate which transfers the liability from the mining company to the state |
| **Non-profit company** | 'An organisation established for a public purpose and not for profit. An NPO must align with the NPO Act, such as the income and property not being distributable to the members or office bearers besides as salaries for services'[158] |
| **Post-closure** | The period following the formal closure of a mine and especially pertains to environmental management plans and measures that are still required following closure |
| **Rehabilitation** | This refers to measures, required under the National Environmental Management Act and Financial Provisioning Regulations, to restore the environment either to its natural and predetermined state (prior to mining) or to a land use compatible with sustainable development[159] |
| **Renewable energy** | 'Renewable energy is any form of energy from solar, geophysical or biological sources that is replenished by natural processes at a rate that equals or exceeds its rate of use'[160] |
| **Social and labour plan** | Social and labour plans comprise of legally binding commitments in respect of, in particular, human resources development, local economic development, and planning for downscaling and retrenchment which are a condition for the right to mine in South Africa |
| **Social ownership (of renewables)** | Where production, distribution and consumption a resource (e.g. energy) is for the meeting of societal needs (rather than profit), and subject to democratic management, oversight and control. Includes both centralised forms of social ownership (i.e. an Eskom subject to working class control) or decentralised forms (e.g. community-owned renewables) |

# Endnotes

[i] The framework – as approved by South African Cabinet in 2022 – is a planning tool for achieving a just transition in South Africa, setting out the actions that government and its social partners will take to achieve a just transition and the outcomes to be realised in the short, medium and long term.

[ii] International Trade Union Confederation (2015). *Frontlines Briefing - Climate Justice: There are no jobs on a dead planet*. https://www.ituc-csi.org/.

[iii] The Climate Justice Coalition – a network of South African civil society groups, grassroots movements, trade unions and community-based organisations – is leading the campaign for a Green New Eskom. They are advocating for a rapid and just transition to a renewable energy-powered economy that is socially owned, delivers clean, safe and affordable energy for everyone and ensures that no worker or community is left behind in the process. https://350africa.org/greenneweskom/.

[iv] Angwe Rachel Lekunze, 'Rethinking the (Un)just Transition: A Review of the Impact of Neoliberal Approaches to Energy Governance in South Africa' (2024) 11 *Journal of Law, Society and Development*. https://doi.org/10.25159/2520-9515/15301.

[v] Janet Cherry et al, *Social ownership models in the energy transition: Report for the Presidential Climate Commission* (2024) at 55-57. https://www.climatecommission.org.za/publications/social-ownership-models-in-the-energy-transition.

[vi] Ibid (v).

[vii] National Business Initiative Decarbonising the South African mining sector (2021). https://www.nbi.org.za/wp-content/uploads/2021/10/NBI-Chapter-4-Decarbonising-the-South-African-Mining-Sector. Deloitte Thought leadership Series Volume 2: 'Renewables in mining' (2017).https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Energy-and-Resources/gx-renewables-in-mining-final-report-for-web.pdf.

[1] Presidential Climate Commision, *Early lessons and recommendations from Komati's decommissioning and repurposing project* (November 2023) at https://pccommissionflo.imgix.net/uploads/documents/PCC-Komati-Power-Station-Recommendations-Report.pdf.

[2] Mining rights holders' primary duties with respect to SLPs are sourced in Sections 25 (2) (f), (h) and Section 28 (1) (d) of the Mineral and Petroleum Resources Development Act, 2002 read together with regulations 40-46 of the Mineral and Petroleum Resources Development Regulations as amended.

[3] South African Human Rights Commission, *Hearing Report on the Underlying Socio-Economic Challenges of Mining-Affected Communities* (2018) at 52-59.

[4] Centre for Applied Legal Studies, 'The Social and Labour Plan Series Phase 1: System Design Trends Analysis Report' (2016) at https://www.wits.ac.za/cals/our-programmes/environmental-justice/social-and-labour-plans/; Centre for Applied Legal Studies, 'The Social and Labour Plan Series Phase 2: Implementation Operation Analysis Report' (2017) at https://www.wits.ac.za/cals/our-programmes/environmental-justice/social-and-labour-plans/.

[5] Amnesty International, CALS & SCMAC, 'Unearthing the Truth: How mines failed communities in the Sekhukhune region of South Africa' (2022).

[6] https://www.angloamericanplatinum.com/media/press-releases/2024/28-02-2024.

[7] Amnesty International, CALS and SCMAC, 'Unearthing the Truth: How mines failed communities in the Sekhukhune region of South Africa' (2022).



[8] G. Moela, 'Oral submissions to the Select Committee on Land and Mineral Resources on MPRDA Amendment Bill B15D-2013' (2022); SCMAC, 'Oral Submissions to the Select Committee on Land and Mineral Resources on the MPRDA Amendment Bill B15D-2013' (2017).

[9] Amnesty International, CALS and SCMAC (op cit); E Thobejane and M Thobejane. 'Sekhukhune Combined Mining Communities, Limpopo, South Africa' in Bench Marks Foundation and SARW *We are Activists – Reflections on our struggles in communities affected by mining*. (2017).

[10] SEJN, 'The Danger of Living Next to a Mine Operation' in Environmental Monitoring Group, Rhodes University and AWARD. *Changing Practice: Olifants Project* (2018).

[11] Ibid.

[12] Robin Mc Taggart (eds), *Participatory Action Research: International Contexts and Consequences* (1997).

[13] This is an established formula in statistics. An example of an article discussing application of it is James E Bartlett (et al), 'Organisational Research: Determining Appropriate Sample Size in Survey Research'. (2001). 19 *Information Technology, Learning and Performance Journal* 43. Available at https://www.opalco.com/wp-content/uploads/2014/10/Reading-Sample-Size1.pdf.

[14] IPCC, 'Summary for Policymakers'. In: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*.

[15] The IPCC regularly issues reports accompanied by summaries for policy-makers on the state of art knowledge of climate change, its impacts, and responses. The primary report on the 1.5 threshold is: IPCC [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla,A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis,E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)] Summary for Policymakers. In: *Global Warming of 1.5°C*. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty, (2018) at 7-10. See also the most recent synthesis report at time of writing: IPCC *Climate Change 2023 Synthesis report* at https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_SPM.pdf.

[16] Ibid at 10-11.

[17] IPCC. *Special report on renewable energy sources and climate change mitigation: summary for policymakers,* (2011) at 15.

[18] Les Leopold, 'The UAW Wins Fight for Just Transition: What the United Auto Workers won from the manufacturers and why it matters so much' October 24, 2023 at https://inequality.org/research/uaw-just-transition/.

[19] Bonolo Tladi et al, 'Assessing the social and environmental impacts of the just energy transition in Komati, Mpumalanga Province, South Africa' (2024) 111 *Energy Research and Social Science* at 2.

[20] Lawyers for Human Rights, 'The impact and assessment of improper mine closures in South Africa: community perspectives on human rights' (November 2022); Lawyers for Human Rights, 'Blyvooruitzicht Mine Village: The human toll of state and corporate abdication of responsibility in South Africa' (2017); South African Human Rights Commission, *Hearing Report on the Underlying Socio-Economic Challenges of Mining-Affected Communities*, (2018) at 26-28, 30.

[21] Presidential Climate Commision, *Early lessons and recommendations from Komati's decommissioning and repurposing project* (November 2023) at https://pccommissionflo.imgix.net/uploads/documents/PCC-Komati-Power-Station-Recommendations-Report.pdf

[22] Brian Kamanzi, 'Komati decommissioning: a spectre due to haunt the just transition' in *Amandla* (6 December 2022) at https://www.amandla.org.za/komati-decommissioning-a-spectre-due-to-haunt-the-just-transition/.

[23] *Integrated Development Plan - 2024/2025 for Fetakgomo Tubatse Local Municipality* at 84-85.
[24] Ibid at 73-74.
[25] Ibid at 84-85.
[26] Twickenham Platinum Mine Social and Labour Plan 2021-2025 at 16.
[27] EDF Energy is a subsidiary of the French multinational electric utility company Électricité de France S.A.
[28] https://www.angloamericanplatinum.com/media/press-releases/2024/28-02-2024.
[29] Most notably: Alternative Information and Development Centre and Trade Unions for Energy Democracy, *Eskom Transformed: Achieving a Just Energy Transition in South Africa* (July 2020) at https://aidc.org.za/eskom-transformed-full-report/.
[30] Ibid at 26, 142.
[31] Ibid.
[32] Ibid.
[33] https://climatejusticecoalition.org/about-us/.
[34] https://350africa.org/greenneweskom/.
[35]https://numsa.org.za/2012/10/motivations-for-a-socially-owned-renewable-energy-sector-2012-10-15/.
[36] 'Meeting report of update by Minister of Public Enterprises to the National Council of Provinces Select Committee on Public Enterprises and Communication regarding the unbundling of Eskom' (20 September 2023) at https://pmg.org.za/committee-meeting/37564/.
[37] World Bank press release, 'South Africa: World Bank back reforms to advance energy security and low carbon transition' (25 October 2023). https://www.worldbank.org/en/news/press-release/2023/10/25/south-africa-afe-world-bank-backs-reforms-to-advance-energy-security-and-low-carbon-transition.
[38] For example, see: Business Unity South Africa, 'Statement on Eskom Implementation of Stage 6 Loadshedding' (28 June 2022) at https://www.busa.org.za/press/business-unity-sa-busa-statement-on-eskom-implementation-of-stage-6-loadshedding/.
[39] Section 34B (4) of the Electricity Regulation Act as amended by the Electricity Regulation Amendment Act.
[40] Section 34B (5) of the Electricity Regulation Act as amended by the Electricity Regulation Amendment Act.
[41] Janet Cherry et al, *Social ownership models in the energy transition: Report for the Presidential Climate Commission* (2023) Gqeberha: Nelson Mandela University at 34.
[42] Ibid.
[43] Ibid.
[44] Department of Mineral Resources and Energy, (2021). Amendment to Schedule 2 of the Electricity Regulation Act. Government Gazette No. 44783.
[45] GreenCape Energy services market intelligence report (2023).
[46] Cherry et al (op cit); City of Cape Town small-scale embedded generation (SSEG) programme. Available at: https://www.capetown.gov.za.
[47] L Baker, *Power for the People? The Politics of Decentralised Renewable Energy in South Africa* (2002); T. Creamer 'Lack of Regulatory Support Hampers Community-Owned Energy Projects'. *Engineering News*. Available at: https://www.engineeringnews.co.za.
[48] Electricity Regulations on New Generation Capacity, 2011 GNR 399.
[49] Act No. 34 of 2008.
[50] Ibid 'Preamble' and Section 2 (objects).
[51] Electricity Regulations on New Generation Capacity, 2011. As provided for by Section 35 (4) of the Electricity Regulation Act, 2004 as amended.
[52] 'Introduction' IRP 2019.
[53] Publication for Comments on the Integrated Resources Plan, 2023.
[54] World Wide Fund for Nature South Africa (WWF-SA), 'Much-need integrated energy plan for South Africa' at https://www.greentrust.org.za/2024/08/21/much-needed-integrated-energy-plan-for-south-africa/.
[55] Centre for Environmental Rights OBO Life after Coal, 'Submission on the draft integrated resource plan' at paras 202-212 at https://cer.org.za/wp-content/uploads/2024/03/Comments-on-the-Draft-IRP-2023-Life-After-Coal-Campaign-and-Black-Girls-Rising.pdf; Meridian Economics 'Review of the IRP 2023'at https://meridianeconomics.co.za/wp-content/uploads/2024/03/IRP2023-Modelling-Submission-20240318.0.pdf.
[56] Centre for Environmental Rights OBO Life after Coal, 'Submission on the draft integrated resource plan' at https://cer.org.za/wp-content/uploads/2024/03/Comments-on-the-Draft-IRP-2023-Life-After-Coal-Campaign-and-Black-Girls-Rising.pdf.
[57] https://www.ipp-renewables.co.za/.
[58] Holle L Wlokas, Peter Westoby & Sue Soal, 'Learning from the literature on community development for the implementation of community renewables in South Africa' (February 2017) 28 *Journal of Energy in Southern Africa* 35 at 37.
[59] Ibid at 37-38.
[60] https://www.eskom.co.za/eskom-divisions/gx/.
[61] 2.6. of Integrated Resources Plan, 2019.
[62] The Final IDP/Budget 2024/2025 for Fetakgomo Tubatse Local Municipality at 68.
[63] Holle L Wlokas et al, 'Learning from the literature on community development for the implementation of community renewables in South Africa' 28 *Journal of Energy in Southern Africa 35* at 37; J Cherry et al, *Social ownership models in the energy transition: Report for the Presidential Climate Commission* (2023) at 107.
[64] World Wide Fund for Nature South Africa, 'A review of the local community development requirements in South Africa's renewable energy procurement programme' (2015) at 27.
[65] Section 1 of the Co-operatives Act No. 14 of 2005.
[66] Bertha Centre for Social Innovation & Entrepreneurship, *A Guide to Legal Forms for Social Enterprises in South Africa* (February 2016) at 11.
[67] Ibid.
[68] Ibid at 13.
[69] Ibid at 12.
[70] CAG Consultants Socio-economic impact assessment of community energy for Devon City Council (15 March 2021) at 13,17, 24-25.
[71] Bertha Centre for Social Innovation and Entrepreneurship (note above) at 11.
[72] Ibid.
[73] J Cherry & K Mokwatlo, 'Scoping and Consultation on Social Ownership Models in the Energy Transition' (2023); J Cherry et al, *Social ownership models in the energy transition: Report for the Presidential Climate Commission* (2023).
[74] M McGovern, 'Community Energy Models in the Global North' (2021); G Walker, & P Devine-Wright 'Community Renewable Energy Projects' (2008) 36 *Energy Policy* 498.
[75] S Becker, 'Financing challenges in community-owned renewable energy' (2020) *Energy Policy* 138.
[76] A Smith et al, (2016) 'Community renewable energy projects: Lessons from Sweden and the UK' 84 *Energy Policy* 198-210.
[77] Spain's SEC – Som Energia Co-operative.
[78] REN21 *Renewables 2019 Global Status Report* (2019).
[79] K Szulecki, 'Energy democratisation and the future of electricity: Challenges and opportunities for community-based renewable energy projects' (2018) 35 *Energy Research & Social Science* 138.
[80] M Swilling et al, 'Developmental states and sustainability transitions: Prospects of a Just Transition in South Africa' (2015) 17 *Journal of Environmental Policy & Planning* 607.
[81] L Baker, 'Renewable energy in South Africa's Just Energy Transition: lessons from community-owned renewable projects' (2021) 70 *Energy Research & Social Science* 101708.
[82] Independent Power Producers, (2023) *REIPPP programme overview* (2023); P Dlamini *Challenges in socio-economic benefits of community trusts* (2021).
[83] World Wide Fund for Nature South Africa 'A review of the local community development

requirements in South Africa's renewable procurement programme' (2015); K Swartz, *Addressing community energy challenges with utility scale renewables: A case study of Hopefield Wind Farm* (2019).

[84] exxaro.com/media-and-insights/press-releases/cennergi-empowers-its-communities-through-impactful-development-projects/; RenewSA, 'Wesley-Ciskei Wind Farm Joins the Green Map' (2021) at https://www.renewenergysa.org/wesley-ciskei-wind-farm-joins-the-green-map/.

[85] Sustainable Energy Africa, (2022) *Review of mini-grid projects in South Africa* (2022); N Mohlakoana, *Lessons from the Lucingweni project* (2014).

[86] T Brennan & L Cherry, 'At the CORE of the (democratic)(energy) transition: A township-based renewable energy project' in Davies et al (eds) *South Africa's Contested Transition to Energy Democracy* (2021).

[87] N Nombakuse, *Community engagement and renewable energy* (2019).

[88] K Cloete, 'Numsa supports a transition from dirty energy to clean renewable energy' *Daily Maverick* (15 March 2018) https://www.dailymaverick.co.za/article/2018-03-15-op-ed-numsa-supports-a-transition-from-dirty-energy-to-clean-renewable-energy/; https://www.eskom.co.za/about-eskom/just-energy-transition-jet/komati-power-station-repowering-and-repurposing/; H Winkler 'Opportunities for community ownership in renewable energy' The Conversation (25 May 2020) at https://theconversation.com/the-case-for-turning-south-africas-coal-fields-into-a-renewable-energy-hub-138315.

[89] J Hain et al, 'Additional renewable energy growth through small-scale community oriented projects' (2005) 33 *Energy Policy* 11999.

[90] K Szulecki, 'Energy democratisation and the future of electricity: Challenges and opportunities for community-based renewable energy projects' (2018) 35 *Energy Research & Social Science* 138.

[91] S Becker, 'Community energy and social entrepreneurship: Addressing the renewable energy–social justice nexus' (2017)147 *Journal of Cleaner Production* 206.

[92] REScoop (2023) at https://www.rescoop.eu.

[93] S Sweeney, John Treat & Irene HongPing Shen Trade Unions for Energy Democracy Transition in trouble? The rise and fall of "community energy in Europe (2020).

[94] I Bauer & M Uriona, 'Diffusion of photovoltaic technology in Germany: A sustainable success or an illusion driven by guaranteed feed-in tariffs?' (2018) 150 *Energy* 289.

[95] V Pellicer-Sifres, 'Transformative Energy Transition from the bottom-up: exploring the contribution of grassroots innovations in the Spanish context' (2020) 42 *Innovation: the European Journal of Social Science* 100.

[96] J Morandeira-Arca et al, (2021) 'Social innovation for a new energy model, from theory to action: contributions from the social and solidarity economy in the Basque Country' 33 *Innovation: The European Journal of Social Science Research* 1.

[97] Oregon Department of Energy Community Energy Grant Program (2023).

[98] S Guerreiro & I Botetzagias, 'Empowering communities – the role of intermediary organisations in community renewable energy projects in Indonesia' (2017) *Local Environment* 1.

[99] S Sweeney, J Treat & I HongPing Shen, 'Trade Unions for Energy Democracy Transition in trouble? The rise and fall of "community energy" in Europe' (2020).

[100] A Massol González, 'Casa Pueblo: A Puerto Rican Model for Self-Governance' (2022) https://library.oapen.org/bitstream/id/e3914220-30c6-4f7d-a890-f15ecb741f76/9781643150291.pdf ; A Ambole et al, 'A review of energy communities in Sub-Saharan Africa as a transition pathway to energy democracy' (2021) 13 *Sustainability* 2128.

[101] *Integrated Development Plan - 2024/2025 for Fetakgomo Tubatse Local Municipality* p. 65.

[102] Municipalities of South Africa, 'Fetakgomo Tubatse Local Municipality (LIM476) – Demographic Information' (2024) at https://municipalities.co.za/demographic/1243/fetakgomo-tubatse-local-municipality; Statistics South Africa, 'South African Community Survey 2016: Indicators derived from the full population Community Survey' (2016) at https://wazimap.co.za/profiles/municipality-LIM476-greater-tubatsefetakgomo/.

[103] Statistics South Africa, 'South African Population Census 2022: Indicators derived from the full population Census' (2022) at https://next.wazimap.co.za/?geo=LIM476#top.

[104] Municipalities of South Africa, 'Fetakgomo Tubatse Local Municipality (LIM476) – Demographic Information' (2024).

[105] Statistics South Africa, Mid-Year Population Estimates 2024, 2024, available at https://www.statssa.gov.za/publications/P03101/P031012024.pdf.

[106] Statistics South Africa, 'South African Population Census 2022: Indicators derived from the full population Census' (2022)

[107] 'The "Average annual household income" and "Monthly income" figures are only an estimate and should be used with care. We calculate the figure by finding the median income band, and then using the middle of that band's income. For example, if the median income band is "R153 801 - R307 600", then we use R230 700 as the average household income. The median income band is the band at which the incomes of half of households are at or below.' Wazimap,'Frequently Asked Questions: Average Household Income' (2024) at https://wazimap.co.za/help#faq-average-hh-income.

[108] Sekhukhune District Municipality, '2024-2025 Final Indigent Policy' (2024) at https://www.sekhukhunedistrict.gov.za/sdm-admin/documents/2024-2025%20FINAL%20INDIGENT%20POLICY_240607.pdf.

[109] *The Citizen*, 'Sassa grant: February payment dates 2025 increases when SRD' (2024) at https://www.citizen.co.za/news/sassa-grant-february-payment-dates-2025-increases-when-srd/.

[110] Municipalities of South Africa, 'Fetakgomo Tubatse Local Municipality (LIM476) – Demographic Information' (2024).

[111] *Integrated Development Plan - 2024/2025 for Fetakgomo Tubatse Local Municipality* p. 317.

[112] Ibid. p. 325.

[113] BusinessTech, 'Load shedding is wreaking havoc on household appliances in South Africa' (2024) at https://businesstech.co.za/news/energy/683369/load-shedding-is-wreaking-havoc-on-household-appliances-in-south-africa/.

[114] Benjamin Robert, Jarè Struwig and Thobeka Zondi, 'Public perceptions and attitudes relating to climate change and the just transition in South Africa' (June 2024) Report prepared for the Presidential Climate Commission (PCC) by the Human Sciences Research Council (HSRC) Developmental, Capable & Ethical State (DCES) research division.

[115] Madubela, Anathi, 'Eskom won't ditch coal, delays decommissioning power stations' (Mail & Guardian, 12 July 2024) at https://mg.co.za/business/2024-07-12-eskom-wont-ditch-coal-delays-decommissioning-power-stations/.

[116] Jyotsna Singh, 'Ranking South African provinces on the basis of MERRA 2D surface incident shortwave flux' (2016) 27 *Journal of Energy in Southern Africa 50* at http://www.scielo.org.za/scielo.php?script=sci_arttext&pid=S1021-447X2016000300005&lng=en&tlng=en; Limpopo Provincial Government, Limpopo Green Economy Plan Including Provincial Climate Change Response (June 2013) at https://www.dffe.gov.za/sites/default/files/docs/limpopogreen_economyplan.pdf.

[117] CSIR, 'Fetakgomo Tubatse Local Municipality: Adaptation Action Plan. GIZ, DFFE, DHS, the HDA & Fetakgomo Tubatse Local Municipality' (2024).

[118] *The Final IDP/Budget 2024/2025 for Fetakgomo Tubatse Local Municipality*, p. 21.

[119] Ibid. p. 69.

[120] *TimesLIVE*, 'Concourt order paves way to recoup R76m from Mphaphuli Consulting – SIU' (6 June 2024) at https://www.timeslive.co.za/news/south-africa/2024-06-06-concourt-order-paves-way-to-recoup-r76m-from-mphaphuli-consulting-siu/#google_vignette.

[121] *The Final IDP/Budget 2024/2025 for Fetakgomo Tubatse Local Municipality* at 68 - 69.

[122] SECTION27, Treatment Action Campaign (TAC), Socio-Economic Rights Institute of South Africa (SERI) & Read Hope Phillips, *Making Local Government Work: An Activist's Guide* (First edition, 2011) at https://www.seri-sa.org/images/stories/activistguidetolocalgovernment_

aug11.pdf.
[123] Elton Thobejane, ' mine CEF fight over inclusion of ward councillors' (23 February 2018) at https://communitymonitors.net/2018/03/twickenham-mine-cef-fight-over-inclusion-of-ward-councillors/.
[124] *The Final IDP/Budget 2024/2025 for Fetakgomo Tubatse Local Municipality*, p. 192.
[125] Ibid.
[126] *GroundUp*,'Elections 2024: What major political parties say about renewable energy' (2024) at https://groundup.org.za/article/elections-2024-what-major-political-parties-say-about-renewable-energy/.
[127] Terence Creamer, '$613m in JET-IP grants have been allocated to projects, Presidency reports' (*Engineering News*, 7 August 2024) at https://www.engineeringnews.co.za/article/613m-in-jet-ip-grants-have-been-allocated-to-projects-presidency-reports-2024-08-07.
[128] CSIR, 'Fetakgomo Tubatse Local Municipality: Adaptation Action Plan' (2024) at GIZ, DFFE, DHS, the HDA & Fetakgomo Tubatse Local Municipality at 21, 31-32. https://greenbook.co.za/documents/GIZ_AdaptationPlan_Fetakgomo-Tubatse-LM_Jul2024.pdf.
[129] Ibid.
[130] Ibid.
[131] Ibid.
[132] Katlego Nyoni, 'EFF to help Queen of Bapedi Manyaku Thulare with legal representation' (*SABC News*, 20 December 2022) at https://www.sabcnews.com/sabcnews/eff-to-help-queen-of-bapedi-manyaku-thulare-with-legal-representation/.
[133] Kgothatso Madisa, 'Ngoako Ramatlhodi appointed first Bapedi Nation prime minister' (*TimesLIVE*, 27 November 2024) at https://www.timeslive.co.za/politics/2024-11-27-ngoako-ramatlhodi-appointed-first-bapedi-nation-prime-minister/#google_vignette.
[134] Moyahabo Mabeba, 'Ramatlhodi's Bapedi posting questioned' (*Sunday World*, 26 January 2025) at https://sundayworld.co.za/news/ramatlhodis-bapedi-posting-questioned/.
[135] Office of the Speaker, Sekhukhune District Municipality, *2024 Public Participation Report* (1 February - 5 March 2024) at https://www.sekhukhunedistrict.gov.za/sdm-admin/documents/2022-23%20PUBLIC%20PARTICIPATION%20REPORT-11262024113029.pdf.
[136] Ibid.
[137] The Final IDP/Budget 2024/2025 for Fetakgomo Tubatse Local Municipality, Appendix 2.7.
[138] Alex Japho Matlala, 'Limpopo unveils R1.8 billion budget boost for economic development' (*The Citizen*, 20 March 2024) at https://www.citizen.co.za/news/south-africa/local-news/limpopo-unveils-r1-8-billion-budget-boost-for-economic-development/.
[139] Limpopo Economic Development Agency (LIEDA), Governance' at https://www.lieda.co.za/index.php/governance/.
[140] Ibid.
[141] KwaZulu Natal Department of Cooperative Governance and Traditional Affairs (KZN COGTA), 'Community Development Workers' at https://www.kzncogta.gov.za/community-development-workers.
[142] Meta Mphahlele,'Community satisfied with feedback from Twickenham Platinum Mine' (*Capricorn FM*, 25 April 2024) at https://www.capricornfm.co.za/community-satisfied-with-feedback-from-twickenham-platinum-mine/.
[143] Amnesty International, CALS & SCMAC, 'Unearthing the Truth: How mines failed communities in the Sekhukhune region of South Africa' (2022).
[144] South African Human Rights Commission (note above) at 67.
[145] *The News Line*, 'South African miners strike for 12.5%' at https://wrp.org.uk/features/south-african-miners-strike-for-12-5/; Kamogelo Habanyane, 'Mineworkers in Limpopo protest over wage increases' (*SABC News*, 19 March 2024) at https://www.sabcnews.com/sabcnews/mineworkers-in-limpopo-protest-of-salary-increments/; *SABC News*, 'NUM accuses government of failing to end illegal mining' (15 November 2024) at https://www.sabcnews.com/sabcnews/num-accuses-government-of-failing-to-end-illegal-mining/.
[146] NUM & NUMSA, 'Joint Press Statement NUM and NUMSA' (2018) at https://numsa.org.za/2018/06/joint-press-statement-num-and-numsa/.
[147] Ibid.
[148] *South African Business*, 'A utility-scale solar farm will feed the grid from 2025' (29 October 2024) at https://www.southafricanbusiness.co.za/10/2024/manufacturing/a-utility-scale-solar-farm-will-feed-the-grid-from-2025/.
[149] *Moneyweb*, 'Twickenham mine fails communities' (29 September 2016) at https://www.moneyweb.co.za/news/companies-and-deals/fruitless-slps-twickenham-a-case-in-point/; Lucas Ledwaba, 'Limpopo villagers demand Anglo reopen Sekhukhune mine or lose licence' (*Daily Maverick*, 19 May 2022) at https://www.dailymaverick.co.za/article/2022-05-19-limpopo-villagers-demand-anglo-reopen-sekhukhune-mine-or-lose-licence/.
[150] The Final IDP/Budget 2024/2025 for Fetakgomo Tubatse Local Municipality, Appendix 2.6.11.
[151] Amnesty International, CALS & SCMAC, 'Unearthing the Truth: How mines failed communities in the Sekhukhune region of South Africa' (2022).
[152] William Gumede, 'Fix special economic zones for growth in South Africa' (*Mail & Guardian*, 12 February 2024) at https://mg.co.za/thought-leader/opinion/2024-02-12-fix-special-economic-zones-for-growth-in-south-africa/.
[153] A Matei, M Saab, T Matthieu & A Khandelwal, 'Doing Special Economic Zones Right: A Policy Framework'. *The International Growth Centre* (November 2019) at https://www.theigc.org/sites/default/files/2019/11/WEB_SEZ-synthesis-paper-2019.pdf.
[154] IPSOS, 'Stokvels remain the untapped 'human banks' of South Africa' (13 March 2024) at https://www.ipsos.com/en-za/stokvels-remain-untapped-human-banks-south-africa.
[155] Co-operatives Act No.6 of 2005 as cited in Bertha Centre for Social Innovation, *A guide to legal forms for social enterprises in South Africa* (February 2006).
[156] Cambridge Dictionary Online.
[157] Eskom, 'Eskom encourages indigent households to claim free basic electricity' (29 September 2021). https://www.eskom.co.za/eskom-encourages-indigent-households-to-claim-free-basic-electricity/; *Eskom Integrated Report*, 2023 at 149.
[158] (op cit Bertha Centre for Social Innovation) at 18.
[159] Sections 44 (aE), (aF), (aG), (aH) read with section 24 (5 (b) ix), 24 (5 (d), 24N, 24P and 24R of NEMA, 1998 as amended; Regulations pertaining to the financial provision for prospecting, exploration, mining, or production operations, 2015
[160] W Moomaw et al for IPCC, 'Chapter 1: Renewable energy and climate change' in IPCC *Special Report on Renewable Energy Sources and Climate Change Mitigation* (2011).