



WHOSE POWER IS IT ANYWAY?

LOCAL GOVERNMENT AND THE
RENEWABLE ENERGY INDEPENDENT
POWER PRODUCERS
PROCUREMENT PROGRAMME (REIPPPP)

Emthanjeni Local Municipality,
Northern Cape Province

BY THINA NZO

PARI
PUBLIC AFFAIRS
RESEARCH INSTITUTE



Whose Power is it Anyway? Local Government and the Renewable Energy Independent Power Producers Procurement Programme (REIPPPP)

**A PARI Local Government report
September 2021**

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Photographs: Bram Lammers Photography

www.pari.org.za

This report was made possible with funding from
Open Society Foundation (OSF)

Acknowledgements

Emthanjeni Corporate Services Manager, Mr Thembisile Msengana, assisted with the coordination of research participants in eMthanjeni Municipality.

Participants from eMthanjeni Municipality and elsewhere are acknowledged below:

- Mr Sipho Sthonga – eMthanjeni Municipality Mayor
- Mr Isak Visser – eMthanjeni Municipal Manager
- Councillors of eMthanjeni Municipality
- Executive Managers of eMthanjeni Municipality
- Mr Sam Mabilo, Northern Cape Provincial Department of Economic Development and Tourism
- Mr Bernard Mabele, Northern Cape Department of Economic Development and Tourism
- Community trustees
- Former IPP workers, community members and local business people

Except for the mayor, municipal manager, senior manager and provincial officials, participants of this research are cited with pseudonyms.

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Acronyms and Abbreviations

| | |
|----------------|--|
| ANC | African National Congress |
| B-BBEE | Broad-Based Black Economic Empowerment |
| CBO | Community-based organisation |
| CFO | Chief financial officer |
| Cogta | Department of Cooperative Governance and Traditional Affairs |
| Cosatu | Congress of South African Trade Unions |
| CSP | Concentrating solar power |
| DBSA | Development Bank of Southern Africa |
| DMRE | Department of Minerals, Resources and Energy |
| EIA | Environmental impact assessment |
| GDP | Gross domestic product |
| IDC | Industrial Development Corporation |
| IDP | Integrated Development Plan |
| IGR | Intergovernmental relations |
| IRP | Integrated Resource Plan |
| IPP | independent power producers |
| LED | Local economic development |
| NDP | National Development Plan |
| Nersa | National Energy Regulator of South Africa |
| NGO | Non-governmental organisation |
| PICC | Presidential Infrastructure Coordination Committee |
| PPA | Power purchase agreements |
| PV | Photovoltaic |
| REIPPPP | Renewable Energy Independent Power Producers Procurement Programme |
| REP | Request for proposal |
| Salga | South African Local Government Association |
| Sanral | South African National Roads Agency |
| SADC | Southern Africa Development Community |
| Satri | Sam Tambani Research Institute |
| SAPP | Southern African Power Pool |
| SED | Socioeconomic development |
| SIP | Strategy Integrated Projects |
| SMME | Small, medium and micro enterprise |
| Spluma | Spatial Planning and Land Use Management Act |

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We owed Eskom R106 million. Eskom cut us [the municipality] from the electricity supply for two days during lockdown, when people lost their jobs and there was no revenue generated by our municipality. We were forced by Eskom to fork out R19 million to reconnect to the grid. We even had electricity protests because people wanted to know why they are paying so much for electricity and still having electricity cuts while we have the IPPs on our back door. This is a valid question ... why can't we [the municipality] negotiate with these IPPs to sell us [the municipality] cheaper electricity directly?

Mayor of eMthanjeni Municipality, 11 November 2020

Local Government and Renewable Energy: Access is Power

1.1 Background

The South African state, as party to the international Paris Agreement,¹ has committed to transitioning to a low-carbon economy by 2030 through a variety of adaptation and mitigation strategies.²

Mitigation strategies are focused on reducing greenhouse gas (GHG) emissions. South Africa's with its energy-intensive economy is Africa's chief emitter of GHGs and is highly dependent on an energy supply based almost 80 per cent on fossil fuels. State-owned enterprise, Eskom, which monopolises generation and control of the national grid network installations,³ is beset with structural and operational problems that have led to electricity supply shortages, a financial meltdown, and massive cost and time overruns in the generator-building programme, including institutional dysfunctionality as a result of maladministration within Eskom's senior management. Eskom is currently sitting with a 464 billion rand debt, 41 billion of which is owed by municipalities.⁴ The cost of electricity has also steadily increased, which has resulted in a far-reaching electricity crisis among poor communities with high unemployment levels.

Eskom's available generation capacity is currently about 4,000 MW lower than peak demand of about 34,000 MW and significantly lower than its nominal capacity of about 45,000 MW. The result of this is continuous loadshedding, which in turn affects the viability of commercial activities which are forced to consider alternative options to complement connection to the Eskom grid.⁵

To circumvent Eskom's generation capacity crisis, the state began seeking alternative options. South Africa's National Development Plan (NDP 2030) envisions a strong economic infrastructure in which renewable energy forms part of the energy mix. Foregrounded by the strategy integrated projects (SIPs), national government

1 The Paris Agreement | UNFCCC.

2 National Development Plan: Vision for 2030 - Chapter 5 (nationalplanningcommission.org.za).

3 Herman, R., C.T Gaunt and L. Tait (2015) 'On the adequacy of electricity reliability indices in South Africa'. *Proceedings of the South African Universities Power Engineering Conference*, Johannesburg, 28-30 January 2015, http://www.erc.uct.ac.za/Research/publications/15-Herman-et-al-Adequacy_reliability_indices.pdf, (accessed 20 July 2021).

4 <https://businesstech.co.za/news/energy/446130/municipalities-owe-eskom-r46-1-billion-as-gordhan-lists-worst-offenders/>.

5 Attia, B. (2015) 'Eskom's infrastructure woes create role for renewable energy in South Africa'. <http://ceep.udel.edu/the-role-of-renewable-energy-policy-in-south-africa-as-eskoms-infrastructure-woes-continue/> (accessed, 16 July 2020).

provided an alternative solution to the energy deficiency challenges by developing the Integrated Resource Plan (IRP)⁶ policy framework to tap into alternate green renewable energy.

Government also used the IRP as the primary vehicle to action its commitment to transitioning away from fossil-fuel-based electrical generation by increasing the use of renewable energy technologies (primarily solar photovoltaic (PV) and wind energy)⁷ in the national energy mix in a planned and staggered way. The primary mechanism for renewable energy deployment is the Renewable Energy Independent Power Producer Procurement Programme (REIPPPP), a policy intervention strategy adopted in 2010 under the IRP to allow private power producers to sell power to the state utility, Eskom.⁸ The deployment of renewable energy technologies through the REIPPPP are enabled by the following legislation:

- National Energy Act 34 of 2008
- Integrated Energy Plan, GN 1430 of 25 November 2016 (Government Gazette No. 40445)
- Electricity Regulation Act 4 of 2006
- National Environmental Management Act 107 of 1998
- EIA Regulations and Listed Activities Notices
- National Water Act 36 of 1998
- National Energy Regulator Act 40 of 2004
- Electricity Regulations on New Generation Capacity, GNR 721 of 5 August 2009 (Government Gazette No. 32378)

The REIPPPP is marketed as a key pillar in South Africa's 'just transition' to a low-carbon economy. It promises to leverage advances in green technologies to cut electricity costs and provide much-needed new avenues for employment across the country.

The balance of energy sources is determined according to a set of social, economic and technical factors that, notably, includes cost of energy production (translating into electricity tariffs), net impact on communities historically linked to coal value chains, and emerging potential (or lack thereof) for the green economy to meet the socioeconomic urgencies of marginalised South Africans.

6 The IRP process started in 2010 with the development and compilation of input assumptions, followed by public consultations on the assumptions. Various supply and demand balancing scenarios were modelled, simulated and analysed and culminated in a draft IRP. In August 2018, following Cabinet approval, the Draft IRP 2018 report was published for public comment for a period of 60 days.

7 South Africa positions itself globally as one of the top ten markets for solar photovoltaic (PV) generation and investment due to its immense availability of wind and sun as natural resources.

8 According to South Africa's IRP (2018), *energy security and increasing energy capacity* in the context of IRP is defined as developing adequate generation capacity to meet the demand for electricity, not only in the current low-growth economic environment but also when the economy turns and grows at 4 per cent per annum.

The REIPPP Programme:

- Is locally honed to roll out a significant amount of power in a very short time;
- Uses a transparent procurement and implementation framework, with key risks mitigated;
- Allows independent power producers (IPPs) to submit competitive bids to design, develop and operate large-scale renewable energy power plants across South Africa;
- Is driven and overseen by the IPP office; and
- Is cost-neutral to Eskom as the full costs associated with the renewable energy IPPs are ultimately recovered from the users of that energy.

To date, procurement of the REIPPP projects has been through four rounds of competitive bidding facilitated by the formation of the REIPPP office with the support of the Department of Minerals, Resources and Energy (DMRE) and National Treasury.

By June 2020, renewable energy projects under the REIPPP Programme were dispersed across the Northern Cape (59), Eastern Cape (17), Western Cape (14), Free State (9), North West (6), Limpopo (3), Mpumalanga (2), Gauteng (1), KwaZulu-Natal (1).

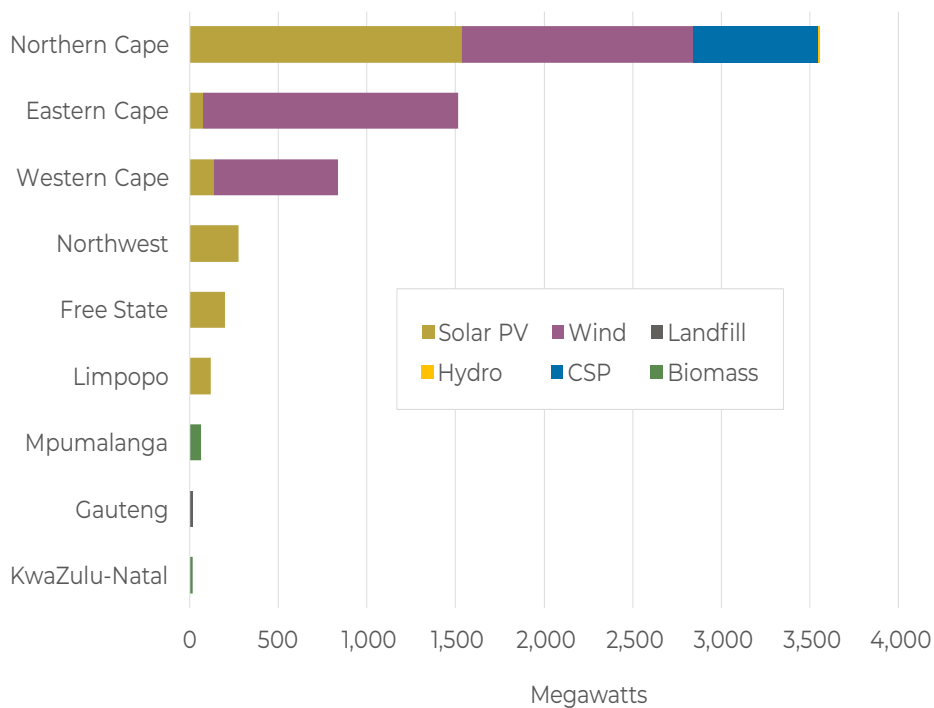


Figure 1: Utility-scale RE technologies by province (<https://www.energy.org.za/data-and-tools/data-viz/south-african-utility-scale-technologies-per-province>)

The Northern Cape province has the highest number of renewable energy projects because of its high radiation levels which are a requirement for solar and wind turbine farms to supply the national grid with power. Not only do solar PV and wind energy with storage present opportunities to diversify the electricity mix, produce distributed generation and provide off-grid electricity, the IRP also emphasises the huge potential they present for creating new industries and jobs, and localisation across the value chain⁹ through the development process.

1.2 The REIPPPP Development Process

The following figure shows the general development process of REIPPPP projects.

| | |
|--|---|
| <p>STEP 1: IRP determination</p> | <p>The Integrated Resource Plan (IRP) determination is issued in the IRP (initially IRP 2010 and most recently 2019).</p> |
| <p>STEP 2: Bidding window</p> | <p>IPP companies compete for ‘preferred generator and supplier’ status. The bidding process is facilitated by the DMRE and National Treasury. In the bidding process, proposed REIPPPP projects are incentivised and required to meet economic development requirements (amounting to 30 per cent of project development costs) that promote Black Economic Empowerment, local community development, local content (to reduce reliance on import of cheap materials) and job growth in the industry.</p> |
| <p>STEP 3: Site acquisition</p> | <p>Sites are chosen in locations with high levels of solar radiation. Local agreements in consultation with local governments is at the discretion of economic development managers in prospective renewable energy companies as they prepare their bids, which limits the role of South African Local Government Association (SALGA) and the Department of Cooperative Governance and Traditional Affairs (Cogta) in planning, prior to the bidding process.</p> |
| <p>STEP 4: Technology development</p> | <p>IPPs develop renewable energy technology.</p> |
| <p>STEP 5: Permitting</p> | <p>Permitting is done through the economic development budgets, and actioned using an implementation agreement* as a legal compact between an IPP and the DMRE.</p> |
| <p>*Local government stakeholders are not directly involved in drafting the agreement. All power purchase agreements (PPAs) under the REIPPPP programme are underwritten and backed by National Treasury, a key pillar in the set of derisking initiatives for private power investment in South Africa. This relationship is formalised through PPAs in which terms – most crucially the agreed tariffs for plants – are negotiated. As part of the bid process development, teams typically propose tariffs based on in principle agreements with construction companies who, once confirmed, build the physical plant according to the desired specifications. Currently, all PPAs for the REIPPPP programmes are confidential and protected by non-disclosure agreements; however, tariff ranges for bidding rounds are available in generalised form.</p> | |

9 Ibid., (2018:13)

| | |
|--|---|
| <p>STEP 6: Financing</p> | <p>Most of the financing of IPPs is done through the Industrial Development Corporation (IDC), Development Bank of Southern Africa (DBSA) and international financiers (Investors). Once finances are secured, the construction phase begins.</p> |
| <p>STEP 7: Engineering, procurement and construction (EPC)</p> | <p>EPC is the most labour-intensive part of the development process and in 2020, accounted for 81% of the jobs created in the REIPPPP (42,355). Construction for solar and wind RPPs is typically between six months and two years but varies depending on the technology type and capacity of the plant, notwithstanding delays relating to defunct or damaged components, disruptions in import logistics leading to long lead times or inefficient construction management services.</p> |
| <p>STEP 8: Transition to operations and maintenance</p> | <p>In the transition from EPC to operations and maintenance the IPP must initiate a process to demonstrate the project's adherence to the legal and technical requirements of the South African grid code. This involves evaluation and validation of plant models, assessment of quality of supply from the early performance of the final built project and implementation of mitigation measures where exceedances and violations to stated technical limits are found.</p> |
| <p>STEP 9: Operations and maintenance</p> | <p>Standard operations and maintenance activities include regular equipment refurbishment, monitoring and grid compliance activities, routine maintenance tasks, plant operators, health and safety officers and security services. Specific tasks vary from technology to technology.</p> |
| <p>STEP 10: Decommissioning of IPPs and infrastructure</p> | <p>The final phase is the decommissioning of IPPs and infrastructure after the 20-year contracts end.</p> |

Figure 2: REIPPPP development over the lifecycle of an REIPPPP project

1.3 REIPPP and Local Government Socioeconomic Development: The Missing Link

The REIPPP programme is considered unique in that, for projects to qualify, developers must commit to community ownership and economic development benefits to diversify the economic landscape, especially in rural areas.¹⁰ Renewable energy is thus presented as a green economy policy instrument that can be used to remodel or re-engineer the economy because of its potential to stimulate South Africa's energy diversification, including the local economies of host municipalities.¹¹

In the midst of the Covid-19 pandemic that crippled the economy of South Africa in 2020, President Cyril Ramaphosa announced, in his State of the Nation Address, further monetary injection into the renewable energy sector as a key strategy to stimulate the economy through infrastructure investments, under the Presidential Infrastructure Coordination Committee (PICC). Private investment into renewable energy is not only regarded by the government as a much-needed alleviation of fiscal pressure for economic expansion; it also has the objective of providing solutions to the energy crisis in South Africa to unlock economic investments that will address the systemic nature of poverty and inequality.

The bulk of research into the socioeconomic impact of the REIPPP programme focuses on the jobs created and capital infrastructure investments made in host provinces (this is often framed as 'coal jobs vs green jobs'), which includes the socioeconomic development (SED) contributions made by IPPs to local communities through community trusts.¹² Lombard and Ferreira's research (see footnote 12) has made valuable attempts to examine the spatial distribution of the commissioned renewable energy infrastructure for wind and solar (construction and operational) and their role in the diversification of rural economies in the Northern Cape, Western Cape and Eastern Cape provinces. Using evolutionary economic geography and path-dependency theories, their study contributes to the understanding of how marginal areas have come to embrace economic remodelling.

However, both researchers fail to provide empirically grounded evidence of how rural host municipalities and their communities were impacted by the REIPPP programme *after* the construction of renewable energy projects.

On the other hand, Khan's research, which focuses on the socioeconomic contributions made by the renewable energy community trusts, revealed that sole

10 Lombard A. and L.A. Ferreira (2015) 'The spatial distribution of renewable energy infrastructure in three particular provinces of South Africa'. *Bulletin of Geography: Socio-economic Series* 74 (30): pp.71–85. <https://www.researchgate.net/publication/282734245>.

11 With the introduction of renewable energy sources affluent households are beginning to capitalise on the decreasing cost of solar PV technology by purchasing rooftop systems that dramatically reduce their reliance on the national grid. It is likely that this will result in domestic and lifeline users paying higher rates to cover the potential drop in revenue from the drop in demand from wealthy users.

12 See Khan, Z. (2021) 'How the rollout of South Africa's renewable energy plan is failing communities'. *Econotimes* 24 July 2021 <https://theconversation.com/how-the-rollout-of-south-africas-renewable-energy-plan-is-failing-communities-164798> (Accessed 27 July 2021), Lombard A, and Ferreira, L.A, 2015. 'The spatial distribution of renewable energy infrastructure in three particular provinces of South Africa', *Bulletin of Geography: Socio-economic Series* 74 (30): p71–85. <https://www.researchgate.net/publication/282734245>.

reliance of trusts on dividends, which may take up to eight years to begin flowing, left trustees demotivated and apathetic in deriving benefits from the IPPs. Despite the above valuable research, which foregrounds our understanding of how the REIPPP programme contributes to the development of rural economies, the policy and planning dynamics between local municipalities and the REIPPP programme, and the expectations communities have of IPPs, have, however, received scant public scrutiny. Little is known about the impact of REIPPP projects on municipal institutional spatial planning, infrastructure and socioeconomic development of rural municipalities, particularly underfunded municipalities with limited resource generation and institutional capacity to leverage new forms of economic development.

Ten years since the start of the REIPPP programme, what do the presence of solar¹³ and wind farms mean for the rural host municipality and communities who continue to face threats of energy insecurity?

The research presented in this paper examines the intergovernmental relations and planning (what form it takes and to what degree it happens) that take place *before* construction of a renewable energy project begins to *ensure the participation of local government*. This process includes:

- The steps taken by local government in spatial planning for REIPPP projects leading to implementation.
- The experience of local government in dealing with the construction phase and maintenance of renewable energy projects.
- The impact of renewable energy projects on municipal infrastructure and their contribution to revenue and local economic development, including the decommissioning stages of operations and maintenance.
- The way in which communities relate to the afterlife of REIPPP in terms of the real socioeconomic development value and benefits derived by communities.

The research in this report primarily examines the relationship between local government and the REIPPP programme from the perspective of local governments that exist in the margins of the state. While ‘the margins of the state’ is often applied when examining the relations between the governmentality of centres and borderlands in Africa,¹⁴ this research report emphasises that state territoriality results not only from the dynamics between the centre and the regions but also from practices that arise from discerning rural from urban divides in the scramble for modernised economies (such as a green economy).¹⁵ This analytical concept affords us a conceptual advantage – one that counters the tendency of policymakers and

13 This paper uses the terms solar and wind turbine ‘farms’ because solar PVs and wind turbines are constructed on agricultural land, which disrupts the ecology of natural vegetation, crops, and stock farming.

14 Tsing, A. 1994, ‘From the margins’, *Cultural Anthropology*, 9(3):279-97.

15 See Zeller, Wolfgang. 2009. ‘Danger and Opportunity in Katima Mulilo: A Namibian Border Boomtown at Transnational Crossroads.’ *Journal of Southern African Studies* 35(1): 133–54.; Nugent, P, 1999. ‘Living in the Past: Urban, Rural and Ethnic Themes in the 1992 and 1996 Elections in Ghana.’ *The Journal of Modern African Studies* 37(02): p287–319.; Chalfin, B. 2010, *Neoliberal Frontiers: An Ethnography of Sovereignty in West Africa*. Chicago, IL: University of Chicago Press.

scholars to account for the state in the so-called centres – urban city governments and their communities – while neglecting the existence of the periphery – the rural municipalities. Moreover, the colonial and apartheid geographies that have birthed neglect of the margins need to be ruptured by redrawing or reconfiguring municipal boundaries into non-racialised local governments. Rural and urban municipalities and their communities also continue to jostle for identity in the socioeconomic spectrum of state development that is being shaped by current global economic demands. The ongoing battle for energy security, particularly in economically deprived communities is juxtaposed upon a harmful legacy of separate development policies of the apartheid regime, still painfully relevant in the contemporary reality of the relationship between communities and local government, the [urban] centre and the [rural] periphery.

The residential tariff structure in South Africa is characterised by cross subsidisation, where high energy users (which are typically also high-income users) pay higher tariffs than low-income users. However, the outcomes of this model are contested.¹⁶ With the failing municipal funding models,¹⁷ tariff cross-subsidisation and rising use of rooftop solar devices mean wealthy users often pay less per kilowatt than many working-class households.

Municipalities in historically underfunded areas remain trapped in a vicious cycle of low investment levels from private capital and limited ability to source funds through the collection of rates and revenue from electricity distribution. The average cost of electricity has increased exponentially in a period during which South Africa's economic growth has slowed¹⁸ and unemployment levels are at crisis proportions, which has in turn led to a steady decline in the demand¹⁹ for electricity accompanied by deepening levels of energy poverty among working-class users with grid-access electricity.

Ledger argues that, from a consumer perspective, the current structure and governance of the energy system *actively undermines the poverty and inequality reduction goals of the NDP* in a number of ways:²⁰

... via a number of different and interconnected pathways, the current distribution system is actively and significantly contributing to increased poverty and inequality in a manner that is completely contrary to the intentions of both South

16 See Ledger, T. (2020) 'Broken promises electricity access for local income households: Good policy intentions, bad trade-offs and unintended consequences'. Energy and Society Working Paper 2. PARI.; Kamanzi B., 19 August 2021, *New Frame*, 'Reform municipal funding to ease electricity crisis', <https://www.newframe.com/reform-municipal-funding-to-ease-electricity-crisis/> (Accessed 20 April 2021)

17 See Ledger, T. and M. Rampedi (2020) End of the Road: A critical review of the local government fiscal framework. PARI Report.

18 See the National Planning Commission, 2020. *Economic Progress Towards the National Development Plan's Vision 2030* (p30) which reveals that South Africa had 3.3 per cent growth in 2011, of which the country only managed to achieve 0.2 per cent growth in 2020.

19 Department of Energy (2019) 'The South African Energy Sector Report', Pretoria, <http://www.energy.gov.za/files/media/explained/2019-South-African-Energy-Sector-Report.pdf> (Accessed 17 March 2021).

20 Ledger, T. (2020) A Just Distribution: The overlooked role of energy distribution policy and governance in achieving a just transition in South Africa. Energy and Society Working Paper 1. PARI.

Africa's pro-poor transformation agenda and original policy intentions with respect to the developmental role of energy in a post-apartheid society.²¹

In Northern Cape province, the geographical position of rural municipalities in strategic economic zones for renewable energy generation in South Africa, adds to the complexity of energy insecurity and poverty reduction at local government level. The REIPPP programme tends to focus on energy generation and reducing the use of fossil fuels and carbon emissions, with scant attention to the socioeconomic, infrastructure and planning life-cycle of the rural municipalities that manage the natural resources and land required to produce renewable energy. In addition, since the inception of the REIPPP in 2010/11, Eskom has transplanted its monopoly of energy distribution through its national grid, which has centralised REIPPP procurement at national level. This has had the effect of excluding local municipalities (including municipalities hosting renewable energy projects) from procuring renewable energy directly from IPPs. Although the DMRE published electricity regulation amendments in 2021 to allow municipalities to procure power generation capacity directly from IPPs,²² it is still not clear what mechanisms municipalities will use to procure, generate and distribute energy from smaller IPPs.²³

While the Electricity Regulation Amendment Bill²⁴ has now progressively paved a way for decentralised energy distribution that enables municipalities to either develop or obtain their own power-generation capacity from IPPs without relying on Eskom, the act favours urban-centric municipalities.²⁵

The condition that municipalities must be in good financial standing to explore alternative energy (renewable energy independent producers) sources suggests that municipalities that owe Eskom will not be able to obtain power generated from IPPs. It also means that economically and socially deprived municipalities, such as eMthanjeni Municipality in the Northern Cape, which is currently hosting renewable energy solar parks and wind turbines, will be excluded, while wrestling with an Eskom debt of R58 million. Rural municipalities in historically underfunded areas

21 Ibid., p8.

22 Business Day, 16 October 2020, 'New regulations will allow South African municipalities to buy and generate their own electricity' <https://businesstech.co.za/news/energy/441304/new-rules-allow-south-african-municipalities-to-generate-their-own-electricity/> (accessed 18 March 2021).

23 In December 2020, Nersa approved a wheeling agreement with a Solar PV farm (SOLA Group) of 28 GWh per year to supply Amazon facilities. Energy wheeling enables the supply of energy to urban areas by projects in outlying areas (such as solar farms in areas with powerful and consistent solar radiation). Electrical power is transferred via a utility's transmission or distribution system, between different grid or network service areas. Underfunded municipalities will need to adapt, potentially through appropriate zoning and rate/levy requirements, to capture the revenue from these developments.

24 Electricity Regulation Amendment Bill, https://www.gov.za/sites/default/files/gcis_document/201409/b20-060.pdf

25 The draft regulations prescribe that municipal allocations must fall in line with the overall Integrated Resource Plan (IRP) and must be accompanied by a feasibility study, demonstrate financial standing of the municipality, and align with its Integrated Development Plan (IDP). The City of Johannesburg's City Power has already made proposals to council to explore the energy mix in accordance with the IRP. This will be done through the establishment of PV solar renewable energy for firstly, 'own consumption' that may be considered in terms of electricity required to provide municipal services and secondly, for distribution to the city to combat current distribution technical losses of 9 per cent. The eThekweni Metropolitan Municipality is also at the advanced stages of preparing to initiate private power procurement with targets to generate 40 per cent of its energy from renewable energy sources. Procurement in eThekweni will be led by the E-IRP (eThekweni Integrated Resource Plan) which is likely to be among the pioneering frameworks for implementation going forward.

remain trapped in a vicious cycle of low investment levels from private capital and limited capacity to source funds through revenue collection.

Many communities on the margins of the state live in the heart of areas that accommodate renewable energy farms and their expectation is that they should benefit from their proximity – firstly, from the mandatory IPP community trusts and socioeconomic development (SED) contributions set out by the DMRE and secondly, from the renewable energy produced by the IPPs.

The research in this report reveals that community ownership and redistribution of resources back into the host communities through IPP community trusts and SED contributions has not yielded tangible and sustainable socioeconomic development in local communities. The current practices and outcomes of the renewable energy programme do not reflect the energy democracy agenda, which advocates for fair access to energy, participation through democratically planned and community-owned and -operated renewable energy systems that serve the public interest and deliver tangible community benefits, such as decent and stable employment, deracialised local economic transformation, and new public institutions in rural municipalities.

Whose power is it anyway?

Electricity legislation limits the procurement of renewable energy between DMRE and IPP, by only allowing power to be supplied to the national Eskom grid [with consideration of decentralising REIPPP to urban municipalities]. Without direct access to clean, affordable renewable energy, and IPP community trusts and SED resources to socially and economically empower IPP local host communities in the margins out of poverty and unemployment, then ***whose power is it anyway?***

Community trusts and SED contributions have become increasingly meaningless for host communities that pinned their hopes on deriving energy relief in the midst of an escalating energy crisis and economic decline in South Africa.

Moreover, the physical presence of IPP infrastructure is felt, along with absent contributions, by the spatial infrastructural development and revenue generation of the municipality. Once the construction phase of renewable energy wind and solar parks is complete, municipalities are left with dilapidating infrastructure and the socioeconomic implications of the short-term economic boom during the construction phase. Without delinking the funding of municipalities from the collection of rates and without a means to support reinvestment in infrastructure in under-resourced communities, little hope remains for a pro-working-class path to decentralised generation, greater use of renewable energy systems and sustainable, green local economies.²⁶

26 Ibid., <https://www.newframe.com/reform-municipal-funding-to-ease-electricity-crisis/>

The research presented in this report argues that the centralised policymaking approach and economic path-dependency in spatial development of renewable energy infrastructure in the REIPPP programme contributes to the reproduction of structural disempowerment and displacement of rural municipalities into the margins of policymaking.

The concept of economic path-dependency defines the ways in which small, historically contingent events can set off self-reinforcing mechanisms and processes that 'lock in' particular structures and pathways of development.²⁷ Rural municipalities are thus prevented from shaping the planning and implementation process of the REIPPP during the preparation stages, during which it is established whether municipalities are ready to host these projects, and to ensure that the municipality and its communities benefit substantially and sustainably in a manner that does not undermine socioeconomic transformation of local communities.

The REIPPP programme demonstrates segments of political-economy governance that either largely preserve or replicate existing dynamics of power that strengthen the powerful at the centre while weakening the marginalised on the periphery of the state. The irrelevance of local government on the margins in the process of policy decision-making and planning also means that the state tends to neglect resource distribution to peripheral municipalities. It is these resources that should be re-invested into the infrastructural development of under-resourced municipalities that contribute to the economy of the state by hosting renewables projects.

The lack of deliberate state engagement with the margins in the REIPPP reveals discrepancies between the rhetoric of local government: 'developmental statism' versus the everyday reality of local government in the margins.

27 Lombard A, and L.A. Ferreira (2015) 'The spatial distribution of renewable energy infrastructure in three particular provinces of South Africa', *Bulletin of Geography: Socio-economic Series* 74 (30): p74. <https://www.researchgate.net/publication/282734245>.

Decentralised Renewable Energy: Cooperatives and Local Government in the United States

In the United States, community solar projects in the state of Vermont were made possible when the Vermont legislature approved a decentralised system of energy generation using group net metering, which allows multiple customers to own a single renewable generation unit and share the output.³² Energy cooperatives redistribute power and foster local ownership of energy infrastructure, and in so doing move away from external, private-investor-owned utilities. Because energy cooperatives are owned and managed by the members of the cooperative they enable locally focused decision-making that reflected local priorities.

Another mechanism that can further decentralised access to energy is *promoting municipal utilities*.³³ In South Africa the possibilities are limited because municipalities do not have adequate land to lease for setting up solar PVs and may have to enter into lease agreements with private agricultural landowners. This could escalate the procurement costs and only serve to further bolster the profits of private land owners.

This decentralised policy decision supports the argument made by this research: the perceptual tendency of policy makers to focus on the centres (urban city governments and their communities) which have the economic advantage with little effort on re-investing into the development of under-resourced municipalities that contribute to the economy of the state. As a result, community ownership is constrained by persistent structural exclusions, such as unfavourable systems of tax incentives, a lack of investment in marginalised communities and historical rules and governing institutions that favour centralised electricity infrastructures and utilities.

1.4 Centre–Periphery State Linkages

The political drive to further energy infrastructure reaches out from the centre to the periphery in Africa in the same way as roads, railroads, schools or the postal service. It is also a conduit for state power.²⁸ Today's power grids are akin to the railway lines of colonial Africa, lacing the continent with ribbons of steel with little connection to the social, economic or demographic needs of the people.²⁹ They differ though in respect of their origin; while the railways were funded by European capital, this particular 'scramble' for 'kilowatts, megawatts and power'³⁰ is led by the South African state and South African capital in Africa.³¹

28 See Graham, S. and S. Marvin (2001) *Splintering Urbanism: Networked Infrastructures, Technological Mobilities and the Urban Condition*. London: Routledge.

29 Fernandez, C. (2018) 'Kilowatts, Megawatts and Power: Electric Territorialities of the State in the Periphery of Ghana and Tanzania'. Unpublished PhD Thesis, Centre of African Studies, University of Edinburgh.

30 Hall, S.M., S. Hards and H. Bulkeley (2013) 'New Approaches to Energy: Equity, Kilowatts, Megawatts and Power'. *Local Environment*, Vol 18(4): pp.413-21.

31 McDonald, D.A. (2009a). *Electric Capitalism: Recolonising Africa on the Power Grid*. Cape Town: HSRC Press., p37.

The ongoing struggle for legitimacy and power by African states includes attempts to legitimise regimes and their state projects. These attempts at state legitimisation are often articulated in two synergic variables: on the one hand, the entanglement of 'developmentalism' and high modernism, and on the other, ideals of social justice and the desirability of transforming societies through forceful state interventions such as the Just Transition Programme and Integrated Resource Plan (IRP) in South Africa. In a relatively short period (10 years), the REIPPP has attracted investments of R209.7 billion (equity and debt) through private investment, of which R41.8 billion (20 per cent) is foreign investment. A total of 6,422 megawatts of renewable energy has been procured from 112 IPPs countrywide in seven bid rounds, of which 3,876 megawatts is connected to the grid.³²

Northern Cape Province is South Africa's largest province. It has a widely dispersed rural population of 1.3 million people and a striking absence of urban and built-up areas. The province has the advantage of being the harbour of renewable energy.

Mining and agriculture, the Northern Cape's most prominent sectors, contribute 3.3 per cent to the national gross domestic product (GDP); by contrast, the tertiary financial and service industrial sectors of urban-centric provinces like Gauteng contribute 35 per cent to the national GDP. Only 1.48 per cent (19,289) of the adult population of the Northern Cape has a post-matric qualification; the unemployment rate is 30 per cent.³³ These statistics confirm the marginal development and positioning of the Northern Cape in comparison with the rest of the country.³⁴

There are no disaggregated statistics to show how much the Northern Cape contributes to national GDP via the renewable energy economy. The latest quarterly IPP report (June 2020) reveals the following:

- A total of 52,603 jobs were created.
- Of 1.2 billion rand of SED contributions made to communities of host municipalities, 68.1 million rand was spent in this reporting quarter.
- 384.2 million rand was contributed to enterprise development, of which 18.6 million rand was spent in this reporting quarter.³⁵
- Northern Cape province has created 7,159 green jobs over the production life of the REIPPP. However, it is unlikely that this number will be repeated in coming years since the demand for energy is dropping with the increase in the cost of electricity.

32 Department of Mineral Resources and Energy, 2020. 'Independent Power Producers Procurement Programme (IPPPP): An Overview'. *Quarterly Report*, June 2020.

33 Northern Cape Provincial Government: Socio-Economic Review and Outlook, 2018. Provincial Treasury.

34 Ibid.

35 Department of Mineral Resources and Energy, 2020. 'Independent Power Producers Procurement Programme (IPPPP): An Overview'. *Quarterly Report*, June 2020.

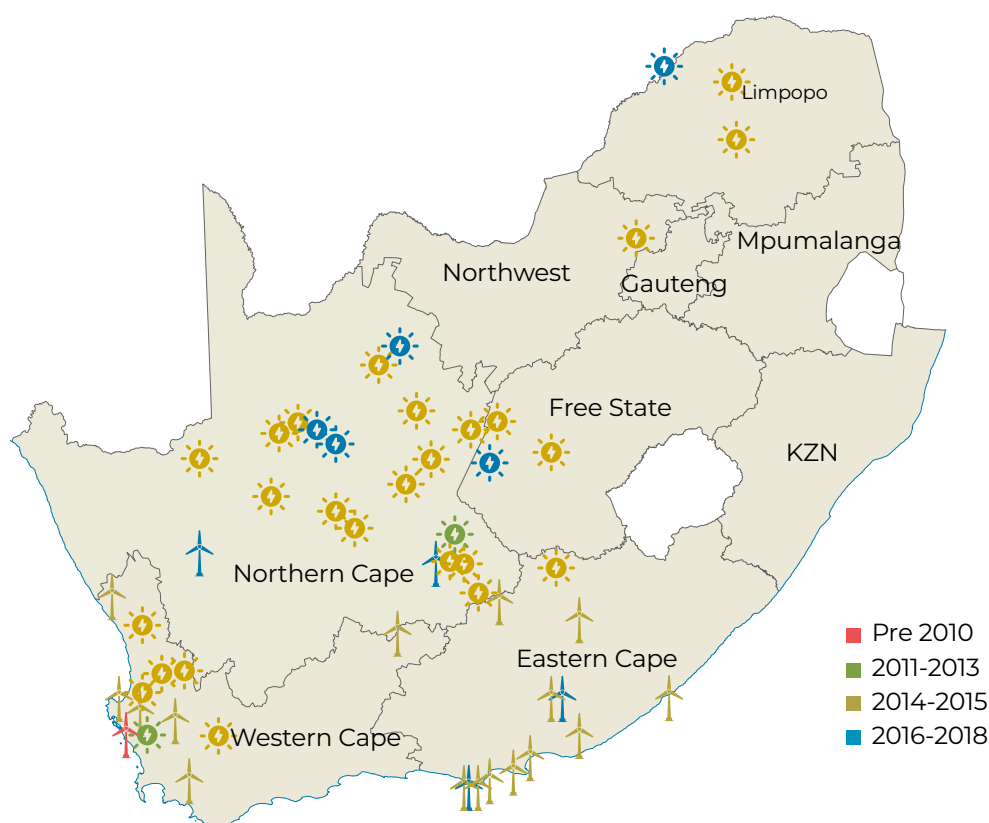


Figure 2: Location of Renewable Energy projects in South Africa (Lombard and Ferreira, 2015)

The cursory socioeconomic data in the IPP quarterly reports of the DMRE suggest that no granular study of the contradictions of the material impact and contributions of REIPPP projects for local municipalities and their residents has been conducted. In spite of the proliferation of REIPPP developments in Northern Cape province, which hosts the highest national quotient of 56 renewable energy projects because of its high availability of solar and wind resources, the province is still among South Africa's poorest.

In August 2018, the Northern Cape provincial government hosted a renewable energy conference in De Aar to take stock of the outcomes of the REIPPP programme since its inception. The objective of the conference, stated in the conference resolution document, highlighted the need to provide a platform for Northern Cape communities to discuss key challenges, opportunities and repositioning of procurement opportunities in the renewable energy space as a tool for radical economic transformation in the province by 2030.³⁶ The provincial government, however, acknowledged that the province is faced with challenges that need to be addressed before they can become a central player in the global export of renewable energy. These include:

³⁶ Interview with Bernard Mabele, Northern Cape Provincial Department of Economic Development and Tourism, 24 November 2020).

- Lack of business skills in small enterprises hampers use of economic development obligations funding opportunities from the IPPs;
- Low literacy levels of the local communities exclude them from participating in SED-ED opportunities;
- Slow pace of socioeconomic transformation (economic landscape and its exclusivist approach to ownership and distribution of income and wealth);
- Localisation is not fully addressed;
- Lack of Government support to ensure that the majority of the original equipment manufacturers are located in South Africa.³⁷

Yet, the South African government continues to invest in the periphery electrification project. As previously explained, political drivers continue to influence the core-periphery linkages in the electrification project, which may explain why African governments, in particular, continue to embark on electrification projects as part of the modernisation of marginalised economies.³⁸

These political drivers are linked to legitimacy building for political regimes in power and its grip over the central state, which are tied to regional economic re-engineering that provides us with an understanding of the context of increasing energy distribution and introduction of the renewable energy generation project in South Africa. As illustrated by Ledger, in South Africa, 'just transition' is understood as a 'process of transitioning to an environmentally sustainable, climate-change resilient, low-carbon and just society. Moving away from coal mining affects communities while attempting to reconcile the goals of employment (particularly in the coal value chain) while shifting to a low-carbon planet.'³⁹ She further argues that too much emphasis has been placed on industrial use, unemployment and job losses resulting from the transition: 'What is required is a much broader definition of what constitutes a just transition in South Africa, in order to better align it with national goals in respect of reducing poverty and inequality.'⁴⁰

In a similar way to IRP policy, just transition focuses on the renewable energy green economy as a silver bullet to remedy the energy distribution crisis and usher in economic recovery and remodelling of regional rural local economies. It is for this reason that, for the better part of the 20th and 21st centuries, the perception has been that the state in Africa has a double mandate: to promote access to electricity as widely as possible, and to pursue industrialisation, with rural electrification as the foundation for solid and just economic growth. This economic approach is not

37 Interview with Bernard Mabele, 24 November 2020.

38 Kitschelt, P.H, and W.I. Wilkinson (2007) 'Citizen-Politician Linkages', in H. Kitschelt (ed.) *Patrons, Clients and Policies. Patterns of Democratic Accountability and Political Competition*, Cambridge: Cambridge University Press, pp.1–49; Fernandez, C. (2018) in his work on *Kilowatts, Megawatts and Power: Electric Territorialities of the State in the Periphery of Ghana and Tanzania*. Unpublished PhD Thesis, Centre of African Studies, University of Edinburgh, identified four core-periphery linkages which are: a) the search for narrow electoral gains; b) legitimacy building for regimes and states; c) regional economic reengineering; and d) elite bargains around demands from sub-national actors such as local infrastructural grievances.

39 Ledger, T. (2020) A Just Distribution: The overlooked role of energy distribution policy and governance in achieving a just transition in South Africa. Energy and Society Working Paper 1. PARI, p6.

40 Ibid., p6.

unique to South Africa; there are examples from further afield: in Russia, from 1920 to 1926, electrification became the connecting point between planning for rational economic development and large-scale remodelling of the social and industrial landscape.⁴¹

The major motivation for electric ‘scrambles’ in Africa, particularly in remote areas such as Northern Cape province, is the belief that spatial development projects will re-engineer and ‘open up’ whole regions in the margins. These projects are often associated with major extractive and industrial schemes and landlocked regions are a primary target. Ultimately, the desire to open them up is based on a desire to accrue increased resource extraction for the state (often to political elites).

It is hardly a novelty that electrification is so often premised as the triggering factor for economic take-off in ‘backward’ areas. The difficulty African states have in extending their reach into marginal areas, and the way this hampers state-building strategies, provokes an enquiry into the extractive nature of the economy of the periphery that forced state-centric colonial governments to invest in rail and road infrastructure to connect the centre and the periphery, placing harbours as destination points for the exportation of mineral resources to the metropole. Boone observes:

*... there’s no state builders who would, in the absence of very strong societal pressure to do otherwise, opt to spread state capacity evenly across the national territory in the presence of geographically uneven distributions of population, economic activity, challenging topography, political support for the regime, and/or political resistance or opposition to the state or regime.*⁴²

Moreover, the major motivation for the historical extension of state reach to the margins was presumably taxation and the extraction of revenue. Decades after independence, the appropriation of economic rents (in agriculture and mining activities) triggered administrative expansion into subnational units that strikes a chord with what Nugent frames as ‘territorial social contracts between African states and regional elites’, and emphasises the ‘pervasiveness of permissive and extractive social contracts vis-à-vis productive ones’.⁴³ This argument resonates with the way in which the Northern Cape economically positions itself with its declared aims of becoming a ‘net exporter of green energy’ by 2020.⁴⁴ Moreover, South Africa’s inherited colonial economic infrastructure development strategies continue to uphold path-dependency – in the way in which the post-apartheid states has designed its local economy – in an attempt to respond to global economic demands rather than local economic transformative demands.

41 Coopersmith, J. (1992) *The Electrification of Russia, 1880-1926*. Ithaca, NY: Cornell University Press., p150.

42 Boone, C. (2012) ‘Territorial Politics and the Reach of the State: Unevenness by Design.’ *Revista de Ciencia Política* 32(3): pp.623–41.

43 Nugent, P. (2010) ‘States and Social Contracts in Africa’. *New Left Review* (63): pp.35–68.

44 Resolutions of the Renewable Energy Conference and Exhibition that took place in De Aar, Pixley Ka Seme District Municipality, 23-24 August 2018, p8-9.

At the heart South Africa's racialised economy, the binary relationship between racially unbalanced land ownership and renewable energy natural resource extraction presents an ongoing post-apartheid challenge for access to power and economic transformation given the present concentration of ownership patterns. Hence, the perpetual predisposition of the periphery as an economic zone for resource extraction for the elites, with little effort to ensure local socioeconomic transformation and development beneficiation of these areas, remains unchallenged.

1.5 Research Methodology

This research paper applies a qualitative research case study. It applies ethnography as a research design to study the relationship between renewable energy projects and their relationship with eMthanjani Municipality – a municipality located on the margins of the state. The qualitative approach contributes towards much-needed nuanced and rich insights from 'below' (bottom up) into how host municipalities and their communities have been affected by the REIPPP programme. Emthanjani Municipality in the Northern Cape hosts one of the largest solar farms, which includes wind turbines.⁴⁵

This research paper applied both secondary and primary data collected from eMthanjani Municipality to examine the relationship between poor and under-resourced local government municipalities and the REIPPP programme. One-on-one interviews were conducted with eMthanjani Municipality senior managers, political representatives, community members who worked in the solar and wind turbine farms during the construction phase, trustees and community stakeholder coordinators employed by the Independent Power Producers (IPPs) and the business community subcontracted by the IPPs. Focus groups were also conducted with six male members of the community, who worked for Solar Capital, Moncada and Molilo renewable energy companies during the construction phase between 2010 and 2015.

The terms 'margins' and 'periphery' are used interchangeably to describe eMthanjani Municipality's geographical, socioeconomic, and governance positionality within the policy processes that contribute to the structural reinforcement of local municipalities and communities on the periphery of the South African state. As illustrated above, marginal or peripheral areas are remote regions in Africa characterised by scattered settlements, low population densities, sinuous topographies, low economic activity and exploitable mineral and natural resources.⁴⁶

The margins reflect poverty, deprivation, under-development and failed service delivery. 'Margins of the state' is not used to denote 'exotic' desert locations of the Northern Cape or rural 'backwaters' of South Africa; instead the term suggests that

⁴⁵ Emthanjani Local Economic Development Strategy (2018-22), p48.

⁴⁶ Fernandez, C. (2018) 'Kilowatts, Megawatts and Power: Electric Territorialities of the State in the Periphery of Ghana and Tanzania'. Unpublished PhD Thesis, Centre of African Studies, University of Edinburgh.

such margins are a necessary entailment of the state and its transversal power.⁴⁷ As a result, we tend to engage in discourses of infrastructure and energy distribution that account for the state from the centre, through the urban city governments,⁴⁸ neglecting to examine the economic linkages between the periphery and the centre that reproduce socioeconomic inequalities.

Importantly, using ethnography in the margins as a methodology to examine the relationship between national and local government in the ongoing process of state-making offers a unique perspective of state policymaking and economic transformation in the process of development. The farming and mining communities of the Northern Cape, which represent the state economies at the margins, have historically played a significant role in the formation of the South African economy through pervasive extractive economies during the colonial, apartheid and post-apartheid eras.

From the diamond fields in Kimberley, the manganese mines in Kathu, the railway lines in De Aar and vineyards in Upington to the current REIPPP programme in the Northern Cape province, these economic sectors have made significant contributions into the GDP of South Africa. Yet, communities of the host local municipalities, from which agricultural and natural mineral resources are extracted, have been subjected to poverty, high unemployment, lack of infrastructural and economic development, and high levels of social deprivation.

1.6 Limitations of the Research

This research was conducted in 2020, when South Africa was hit by Covid-19; the ensuing lockdown resulted in the enforcement of mobility and social distancing regulations. The National Disaster Management Regulations prevented researchers from physically interacting with research participants, which affected the research methodology.

Firstly, Level 5 of local lockdown regulations caused delays in the uptake of fieldwork, which requires the researcher to be physically present. The researcher thus changed her methodology from a comparative case study of two municipalities, to an embedded case study of one municipality, to reduce extensive travel and the risk of coming into contact with the Covid-19 virus.

Secondly, the researcher could not travel to familiarise herself with the field site as part of the preparatory work before entering the field. The researcher used old networks to gain entry into the field and deliver her presentation of the research project to the municipal council and executive remotely, using virtual platforms to gain consent to access municipal participants.

47 Das, V. and D. Poole (2004a) *Anthropology in the Margins of the State*. Oxford: James Currey Publishers, p4.

48 Wafer, A. (2012) 'Discourses of Infrastructure and Citizenship in Post-Apartheid Soweto'. *Urban Forum* 23(2): pp.233–43.

Thirdly, the researcher was not able to interview as many people as planned. This also includes being unable to interview the IPP company management, as most IPPs operating in eMthanjeni Municipality are based in Cape Town. The researcher was able to conduct fieldwork in at least one municipality only because Northern Cape Province had the lowest number of Covid-19 infections and related deaths.

Nevertheless, the number of Covid-19 cases varied from one municipality to another. Therefore, the researcher also applied risk determination and mitigation strategies by monitoring hotspot municipalities in the province. By November 2020, during lockdown level 3, Covid-19 cases had dropped significantly and the researcher was able to conduct fieldwork. Remote and non-physical methods of data collection such as telephone interviews in an unfamiliar municipality would have been a challenge in terms of fully understanding the municipal context of the case study and building trust with the participants.

The research design demanded a physical visualisation/observation of the renewable energy infrastructure (wind turbines and solar farms) in relation to the actual municipal environment – the geographic and infrastructural spatial development that defines the socioeconomic characteristics of eMthanjeni Municipality and the lived experiences of its communities post-construction.

Covid-19 protocols and social distancing were strictly observed during one-on-one interviews and the number of participants in focus group discussions was kept to a maximum of five. As a result of the above combination of risk assessment and mitigation, the researcher completed the field work in February 2021 without contracting Covid-19 or putting the participants at risk of contracting Covid-19 from the researcher.





The lack of state-deliberate engagement with the margins through the REIPPP programme reveals discrepancies between the rhetoric of local government 'developmental statism' in the local government white paper and the everyday reality of local government in the margins.

REIPPP Path-dependency and Local Government in the Margins

2.1 Background of eMthanjeni Local Municipality in the Northern Cape Province

Emthanjeni Municipality is located 900 kilometres from Johannesburg, arguably at the 'margins of the state' (Tsing, 1994). It is one of the eight local municipalities⁴⁹ that constitute the Pixley Ka Seme District Municipality. It is predominantly semi-rural, and includes three small towns: De Aar, Britstown and Hanover, which are surrounded by privately owned agricultural lands that span the barren hinterland. Britstown and Hanover are typical farming towns, with one main road serving as a thoroughfare, one petrol station, a general dealer, a bottle store and two ATMs. De Aar, the biggest town in eMthanjeni Municipality has a population of 45,000 people.



Figure 3: Map showing eMthanjeni Municipality (Source: Google Maps)

⁴⁹ Pixley Ka Seme District Municipality consists of the following local municipalities: Emthanjeni, Siyancuma, Siyathemba, Kareeberg, Ubuntu, Umsobomvu, Thembelihle.

Established in 1884, De Aar (Dutch for 'the artery') was named for the underground springs around which the town developed. De Aar's origins – which are unusual because it was not as a parish of the Dutch Reformed Church – resulted from an Act of Parliament in Cape Town in 1881 that paved the way for the extension of the railway line from Beaufort West to De Aar and ultimately beyond to the diamond fields of Kimberley. De Aar was a strategic railway junction with 29 railway lines and some 92 trains a day passing through from Johannesburg, Cape Town, Gqeberha (Port Elizabeth) and Namibia.

The railway served as a large British army facility during the Second Anglo-Boer War (1900-1902) and was integral to obtaining control over *Zuid-Afrikaansche Republiek* enclaves, and sending and receiving supplies to and from villages and towns, and to many battlefields along the railway route.⁵⁰

Historically, De Aar played a strategic role from the margins by providing town linkages for economic expansion during the diamond and gold rushes in the interior of South Africa and facilitating demarcation for territorial conflict and the battle for railway control during the Anglo-Boer War in the formation of the colonial state (Union of South Africa).

Until the 1970s, railway lines were directly controlled by the apartheid government. Nearly all goods and mineral resources, coal and diamonds traffic went by rail via Postmasburg, De Aar and Noupoot in the Northern Cape. As reflected by Williams (2021), whilst the apartheid economy grew through the export of mineral resources transported using the railway, so did competition from road transportation.

With the decline of the South African economy as a result of economic sanctions and escalating government debt in the 1980s, the financial viability of railway lines came under scrutiny. The National Party shifted towards privatisation of major state-owned entities (including the railways) under the New Public Management (NPM) reforms in the 1980s, exploring commercial mechanisms to make the railway more profitable.⁵¹ Similar approaches for managing state-owned entities were adopted by the ANC administration when it came into power in 1994. Reducing the size of the bureaucracy led to huge retrenchments of Transnet railway employees and devastated the local economies of small towns such as De Aar that depended on the railways. Although privatisation was later abandoned under President Thabo Mbeki's administration with the intention of reforming and reviving the railway network system using less aggressive principles of semi-privatisation, towns such as De Aar have struggled to recover from the economic decline emanating from these state-led economic reforms.

50 Burman, J. (1984) *Early railways at the Cape*. Cape Town & Pretoria: Human & Rousseau.

51 David Williams, 20 April 2021, Daily Maverick, 'What broke South African rail – and can it be fixed?', <https://www.dailymaverick.co.za/article/2021-04-20-what-broke-south-african-rail-and-can-it-be-fixed/> (accessed 3 May 2021).

2.2 Omnipresence of Apartheid Spatial Geography

De Aar is the political-administrative town for both eMthanjeni Municipality and Pixley ka Seme District Municipality. The ANC has the majority and the Democratic Alliance is the main opposition party in eMthanjeni Municipality council with 15 elected councillors (eight ward councillors and seven proportional representation). De Aar serves as local state authority for renewable energy projects and as the centre of distribution of goods and services for the township, suburban and farming communities.

While on the one hand, the railway lines give us an idea of how colonial towns in post-apartheid municipalities in the periphery have contributed to the making of colonial states and their economies, on the other hand, the railways also played a role in mapping racial divisions for most towns and cities during apartheid. The railway line in De Aar still plays a significant role in defining the socioeconomic landscape of its communities. The railway line was used by the apartheid government as an infrastructural border to separate the black townships and white suburbs of De Aar, and post-apartheid, stubbornly stands as a spatial marker that distinguishes the town's high and low income wards. Smaller farming towns of eMthanjeni Municipality are delineated by privately owned commercial farms.

On the south side of the De Aar railway lies Nonzwakazi, a dusty old township famous for being home to African National Congress (ANC) anti-apartheid activists. This township is characterised by tiny dwellings built during and post apartheid by the state, interspersed with newly built homes. Smoke-filled shacks that exhale biofuels in the evenings have found a place in the open fields of unused land. On the northern side across the railway lies the town of De Aar buttressed by old Victorian architectural homes in the leafy suburb of Louisville. A few modern unfinished 'Tuscan' homes are beginning to clamour for modern architectural identity and space among the colonial dwellings. On paper, De Aar is a picture of deracialised and inclusive spatial planning, but in reality it is rife with racialised economic exclusion due to lack of access to capital and social mobility by the majority black and coloured communities.

Most of the solar parks are situated on the periphery of De Aar. The wind parks are situated on private white-owned farms that stretch for 35 to 50 kilometres on land between the towns of De Aar, Britstown, Hannover and Philipstown. Some wind farms are also located in towns such as Noupoot and Phillipstown, towns that fall under nearby sister municipalities – Umsobomvu and Renosterberg in Pixley ka Seme District Municipality.

The celestial and towering presence of the wind farms is perplexing. It is astounding to see how rural agricultural lands continue to take on new economic forms and evolve in the process of globalisation.

2.3 Poverty and Economic Deprivation

Emthanjeni Municipality, in a similar way to most municipalities in South Africa, carries a burden of racial segregation mapped onto unequal access to basic infrastructure and compounded by rapid population growth, poverty and economic deprivation. Since the death of the railway economy in De Aar, the municipality has been regarded as an economically depressed area with a 37 per cent unemployment rate and a majority unskilled labour force. As previously stated, rural municipalities and their economies largely make use of their (vast) natural resources as inputs for agriculture, mining, forestry and other primary-production activities which mainly serve the domestic country and export market. These municipalities are often characterised by weaker local economic performance due to their inability to attract highly qualified labour; the result is that they become buffer zones of low-wage and low-skilled workers, lacking career ladders and job security and trapped in poverty.⁵² In 2006, more than 60 per cent (21,000 out of 38,071) of the population of eMthanjeni Municipality was living in impoverished conditions.

De Aar has a larger population density than neighbouring Hanover and Britstown. Unlike most municipalities, racial demographics in eMthanjeni Municipality reveal that of the total population of 45,404, the coloured community of 27,644 constitutes the majority. The balance consists of 14,515 Africans and 3,129 whites, whose population has decreased from 4,463 (in 2011).⁵³ Of the 12,615 households, 3,838 (30 per cent) are indigent. Aside from the dire economic conditions that exacerbate poverty and unemployment, 60 per cent of the coloured community has been ravaged by the colonial labour legacy of the 'dop system',⁵⁴ whereby, since the 18th Century, the wages of farm workers were supplemented with alcohol. This has contributed to a high prevalence of Foetal Alcohol Syndrome (FAS) and perpetual abuse of alcohol within the coloured community. The correlation between excessive alcohol abuse and FAS predominates in farming communities of the Western Cape and Northern Cape provinces.

Although the use of alcohol as payment was abolished in 2004 by the Liquor Act, it has had a social ripple effect in the present tense; the extensive use of alcohol has become a way of life for many socially and economically deprived rural farming communities and towns in the Northern Cape.

52 Ward, N. and D.L. Brown (2009) 'Placing the Rural in Regional Development'. *Regional Studies*, Vol. 43(10): pp.1237-44.

53 Emthanjeni Municipality Performance Report (2018/19).

54 The word 'dop' is Afrikaans for a tot of alcohol. The dop or tot system originated in the 1700s when European settlers colonised land in South Africa to create an agricultural economy.

2.4 Cooperative Government and Centralised Planning

Cooperative government, insofar as it affects local government, is perhaps mostly clearly illustrated to stimulate local economic development at local government level through the Intergovernmental Relations Framework of 2005.⁵⁵ The participation of local government in planning and implementing national and provincial level programmes is highlighted in the IGR framework to stress the fact that municipalities are the physical sites for economic development programmes and projects.

It is here that the concept of intergovernmental relations (IGR) becomes critical. In this regard, the Local Government White Paper of 1998 includes a vision for developmental local government, intended to eliminate apartheid patterns of development. This vision implies that an IGR system created at local level not only requires the active involvement of communities and other vested interest groups but also encourages private and public investment in historically neglected or marginalised municipal areas. Reinforced by the Municipal Structures Act of 1998, the IGR system at local level should ensure that municipalities pursue integrated development on a consistent and rigorous basis by aligning their physical spatial planning, sectoral planning and resource planning with other government spheres at national and provincial level.

To date, a number of intergovernmental relations structures [as per IGR framework] have been established to encourage and promote cooperative government. MinMecs, are ministerial forums responsible for the line functions of ministers at national level and their respective MEC counterparts at provincial government levels. The intergovernmental forum (IGF) comprises high-level appointed and elected representatives and officials in all three spheres of government, and representatives of the South African Local Government Association (Salga). The Presidential Infrastructure Coordinating Council (PICC) is one of the high-level structures that coordinates state activities at national level. It consists of the president, the deputy president, key ministers, premiers from all nine provinces and the Salga national structure. The PICC meets regularly to oversee implementation of national policies and legislation and ensures that national, provincial and local development strategies are aligned with each sphere of government. The PICC, as an IGF structure, is important because it provides Salga with a platform to represent the voice of local government in planning for economic projects such as REIPPP, which are spearheaded by the Investment and Infrastructure Office in the Presidency. It also provides an opportunity for policy dialogue and coordination between Salga, the Department of Minerals and Energy (DMRE), the Department of Cooperative Governance and Traditional Affairs (Cogta) and provincial premiers of provinces for which these projects are earmarked.

However, the procedures required to secure the involvement of local government require substantial coordination, information sharing and participation of Salga and

55 See Part 4 of the Intergovernmental Relations Framework Act (2005) https://www.gov.za/sites/default/files/gcis_document/201409/a13-051.pdf.

Cogta from the initial planning stages. Cogta, as the department responsible for the coordination of provincial and local government, does not feature extensively in the process of planning for renewable energy; the REIPPP programme is driven largely by the Infrastructure and Investment Portfolio in the Presidency and by the Department of Mineral Resources and Energy (DMRE). The centralised, top-down policy and planning at national level by the Presidency and DMRE has enabled a culture of prescriptive information-sharing and consultation with local government, poor coordination, complex procedures and ambiguous policies to outline the role of local government in sectoral planning, all of which detract from the efficacy of IGR planning and implementation for REIPPP.

Although IPPs are free to propose site locations across South Africa and provide a connection plan to the national grid (through the transmission or distribution networks), this process does not facilitate an extensive process of including REIPPP in the Integrated Development Plan (IDP) process, which can rope in sector departments (Cooperative Governance, Human Settlements, Water and Sanitation, Public Works, National Treasury) and is essential in providing the infrastructural support municipalities need for long-term planning for REIPPP development and investments. Instead, rural and economically depressed municipalities often provide a justification for reinforcing and legitimising the top-down approach in economic policy and planning for development by the national government. As stated by the municipal manager of eMthanjeni Municipality:

... we were never involved in the initial inception stages of the development of the REIPPP programme. It was centralised at the national government level, with the participation of the provincial government. The only time we were involved as the municipality was when the IPPs were acquiring land and during the rezoning processes. Our rural municipality did not even have the capacity to initiate these processes since rezoning was mainly centralised at the district municipality.⁵⁶

In the case of the programme in Northern Cape province, solar parks in Upington dominated the renewables landscape and received much attention from the provincial and national governments before 2010. Due to the escalating pressure of stagnant economic growth and poverty, Pixley ka Seme District Municipality saw an opportunity to position itself as a potential site for REIPPP expansion. The district municipality hosted a renewable energy conference to deliberate on what the introduction of this sector into the Northern Cape economy meant for other municipalities. At the time, most local government political representatives and officials and stakeholders did not have extensive knowledge of the programme.

56 Interview with the municipal manager, eMthanjeni Municipality, 12 November 2020.

A resolution taken at the conference affirmed the district municipality's claim to a slice of the renewable energy sector, which had the potential to contribute to the revival of the local economy. The district municipality initiated a process of engaging local district municipalities in preparation for the REIPPP. With the N10 route as an economic corridor to link Upington and De Aar and to develop the spatial development framework, the district municipality positioned the programme into a framework that eventually caught the attention of the provincial government.

The district municipality developed a business case to argue for participation of the district municipality in the renewable energy sector by linking it with existing economic zones in the Northern Cape to revitalise the existing railway lines in De Aar, the Karoo (the Karoo region and Orange River), the mining belt; and the bio-tech aqua-culture; and co-opting farmers to invest into the small scale hydroelectricity.

Through their representative bodies, GWK and OVK, farm owners in possession of the bulk of the land required for setting up IPPs were also part of the district consultative process. The district and provincial local economic development (LED) forum was used as an IGR structure for Pixley ka Seme District Municipality Provincial Growth and Development Strategy planning agenda for renewable energy. It was projected that 175 MW of renewable energy had the potential to create between 500 and 950 jobs, of which 55 would be full-time jobs during the operational phase over 20 years. However, the district municipality had to use its political network to access the former Minister of Mineral Resources and Energy in order to influence and convince the national government that Pixley ka Seme would be a suitable geographic location for the renewable energy projects. Officials from the national government sent to evaluate its potential earmarked the region as an economic zone for renewable energy; other sectors such as railways, biotechnology, aquaculture and hydroelectricity, did not receive much attention.

When eMthanjeni Municipality finally made it into the list of potential host municipalities through the Provincial Growth and Development Strategy of the Northern Cape government, the municipal council was issued with directives from national government, informing councillors and officials that a number of selected municipalities in the Northern Cape, including eMthanjeni local municipality, had been identified as potential sites for developing renewable energy projects. However, officials recall that there were no proper dialogue and consultation processes initiated, particularly from the political perspective of provincial, regional and local political leadership structures of the ANC. This included engagements between the political IGR of three spheres of government, national, provincial and local government through the aforementioned intergovernmental relations structures.

Renewable energy was positioned as a national policy decision that would serve to resolve the energy crisis while addressing unemployment by creating jobs in the green economy.

Although we understand that the IPP policy is a mandate of national government [DMRE], from our experience we think that engagement with local government should be included in the initial stages of the bidding process, even before the issuing of permits and signing of the service level agreement with the IPPs. Salga is a representative structure of local government. But there is little dialogue that takes place between Salga with us as municipality and the DMRE, including Cogta.⁵⁷

Another councillor noted:

IPPs are receiving policy directives from the national government which do not speak to the needs and challenges of small rural municipalities. For example, IPPs require certain infrastructural support and services from the municipality during the construction phase. Our municipal infrastructure in these rural municipalities does not have the capacity to carry heavy industrial construction activities that IPP developers bring to our municipality. Yet, such issues are not taken into account when DMRE draws up the service level agreements with the IPPs. The IPP SED plans are rigid and do not make an allowance for IPPs to plough back into the investment of municipal infrastructure. By the way, this is the same infrastructure that mainly benefits our poor communities.⁵⁸

According to ANC councillors in eMthangeni Municipality, there were concerns raised by local political representatives of the ANC in the region, particularly around the readiness of eMthangeni Municipality to host the REIPPP programme.

Remember, projects of this nature were fairly new in the country and in the Northern Cape. A proper dialogue from a political perspective between ANC provincial and regional party structures would have assisted us as the governing party in the municipal council and executive to have a better understanding of the objectives and processes of REIPPP. We could have made an effort to carefully plan for the developments associated with this project.⁵⁹

Interestingly, the renewable energy programme also did not feature in the eMthangeni Municipality Integrated Development Plan, 2010 which demonstrates a lack of understanding of renewable energy and its implications for spatial re-engineering. The sudden shift from an agriculture-based local economy towards planning for an industrial green economy threw municipal officials in the deep end. As we will see,

⁵⁷ Interview with Cllr Sizwe Mbangi, eMthangeni Municipality, 9 November 2020

⁵⁸ Interview with Cllr Van Staden, eMthangeni Municipality, 6 November 2020.

⁵⁹ Interview with Mr Thulani Sizani, eMthangeni ANC sub-regional secretary, 12 November 2020.

parallels can be drawn for renewable energy in eMthanjeni Municipality and the Medupi power station at Lephalale Municipality, where municipal officials noted that

... as a result of rapid infrastructural development that are 'imposed' from the top, down to the municipality, giving very little time for proper planning and financial assistance to low capacity municipalities.⁶⁰

2.5 Environmental Impact Assessment

There is no prescribed entry process for IPPs into local municipalities; entry depends mainly on the IPP project developers themselves. IPP developers only initiate a dialogue through a feasibility study and environmental impact assessment (EIA) once they have selected a municipality as a site for development during the bidding process. Mulilo and Skytech were the first IPP companies to host talks with Pixley ka Seme District Municipality and eMthanjeni Municipality about their interests in setting up renewable energy parks and wind turbines. The mayor noted that they were the only IPP company that initiated a conversation with the political structures of the eMthanjeni municipal council and the ANC in the region from the initial stages.

Skytech took us through their plans and process of construction. Unlike the other IPPs, we did not experience any labour-related problems with Skytech because they always kept us informed of what was going on their site. They were transparent about how many workers they needed, and their remuneration and procurement processes.

The other IPPs were business minded and had a hard-line business approach in the way in which they viewed interactions with the municipality. Mulilo was also another Chinese company which was also open-minded in engaging with political structures of the ANC and councillors. They took us through the background of how they operate in China and their relationship with the Community Party of China. They understood the importance of getting political buy-in locally, even though they had a centralised approach and preferred to work with the national government and sticking to the DMRE mandate.⁶¹

Once consensus was reached between the IPPs and private farm land owners, an EIA was conducted by private environmental consultants appointed by the IPPs with the involvement of the municipality. This approach of EIA consultants being

60 Phadi, M. and J. Pearson (2018) 'We are Building a City: Governance and the Struggle for Self-sufficiency in Lephalale Local Municipality. PARI report, p8.

61 Interview with the mayor of eMthanjeni Municipality, 12 November 2020.

contracted by the IPPs provokes critical questions on internal validity, objectivity and independence of EIA report outcomes, even though the agricultural, environmental, infrastructure departments of municipalities and stakeholders in the municipality are given the opportunity to comment on the outcomes of the reports. The expert capacity of smaller local municipalities with regard to analysing the technical aspects and methodologies of the EIA also requires further interrogation. Moreover, while there is no evidence to demonstrate the long term impact of radiation on the climate, the community of De Aar has observed changing weather patterns relating to the excessive heat over time in their region, which may suggest that there could be long-term environmental changes observed by the community since the installation of solar infrastructure.

Environmental functions usually lie with the district municipality, which is thus responsible for all inputs, notwithstanding the fact that most smaller local municipalities are not familiar with modalities of the green economy as a newly emerging sector in South Africa.

EIAs are often not accompanied by social impact assessments (SIAs). The claims IPPs make with regard to socioeconomic development opportunities are often based on short-term employment projection assumptions, with little interrogation into the adverse effects of the grand-scale renewable energy development projects; these include in-migration patterns associated with the pressure on infrastructure and amenities, housing demands, high demands on water-scarce areas, gendered socioeconomic dynamics, antisocial behaviours, health risks to communities and the expectations of poor communities.

After the EIAs are approved, most IPPs come back to inform council about the construction plans. When they come to the municipality, they already have permits issued by the DMRE and agreements with the private farm land owners.

In the case of eMthanjeni, the IPPs shared their construction plans, including the labour and skills that would be required. However, it was noted that once construction commenced, the IPPs struggled to maintain proper communication with the municipality, particularly where labour and local procurement issues were concerned. This will be further elaborated upon in the last chapter, which interrogates the social contributions made by the IPPs.

2.6 Municipal Spatial Development Framework and Zoning for REIPPP

The development of infrastructure for any socioeconomic activity in a municipality does not take place in a vacuum. Municipalities are legally required to develop and adopt a municipal spatial development policy framework to be prepared as part of the municipality's Integrated Development Plan (IDP), in accordance with the Municipal Systems Act. Once municipalities have developed the municipal spatial development framework and council has adopted it, council must establish the

Spatial Planning and Land Use Management (Spluma) committee, which provides oversight of the implementation of the spatial development framework and makes recommendations to council on any proposals for land use and spatial planning of the municipality. Sections (20) and (21) under Chapter 4 of the Spatial Planning and Land Use Management Act (2013) provide municipalities with specific guidelines on how to develop a municipal spatial development framework and what it should entail and address.

Emthanjeni Municipality is categorised as a low-capacity municipality, which relies on the district municipality's Spluma committee as a shared service to execute municipal spatial planning. This raises concerns with regard to the local municipality's capacity and effectiveness in providing council with decision-making support for spatial planning. The eMthanjeni Municipality's spatial development framework (SDF) and land use management scheme (LUMS) is outdated and does not comply with current Spluma legislation.

Chapter 4 of the Spatial Planning and Land Use Management Act (2013) Section (21) specifically states that the municipal spatial development should:

- Identify current and future significant structuring and restructuring elements of the spatial form of the municipality development, including development corridors, activity spins and economic nodes where public and private investments will be prioritised and facilitated.
- Include population estimates for the next five years.
- Include estimates for the demand for housing units across socioeconomic categories and the planned location and density of future housing developments.
- Include economic activities and employment trends and locations in the municipality for the next five years.
- Identify, quantify and provide location requirements for engineering infrastructure and services provision for existing and future development needs for the next five years.
- Include a strategic assessment of the environmental pressure and opportunities within the municipal area, such as agricultural land
- Identify the designated areas of the municipality where incremental upgrading approaches to development and regulation including amendment of land use schemes.
- Determine the purpose, desired impact and structure of the land use management schemes to apply in the municipal area and include an implementation plan comprising sectoral requirements, budgets and resources for implementation, necessary amendments to a land scheme, and specifications of institutional arrangements necessary for implementation, and identify partnerships.

Over and above the SDF, section 24 of the Spluma Act stipulates that municipalities must also develop land-use schemes. Land-use schemes help municipalities to *categorise the land-use zoning or rezoning*, and give the municipality authority to approve or disapprove the development of land, and to issue special requirements regarding any special zoning.

Zoning and rezoning of land is informed in particular by the socioeconomic development investments and activities for which the land will be used, which assist with quantifying the costs relating to the bulk infrastructure and services contributions to be made by the developer to the municipality before the commencement of the construction. The chief financial officer of eMthanjeni Municipality admitted that when Mulilo submitted an application for rezoning for the solar parks to the municipality, they were excited about the financial contributions the municipality would derive from the green economy. Their biggest mistake was not applying the spatial planning legislation and overlooking implementation of the rezoning of agricultural land for the solar parks and wind turbines to determine the bulk services contribution (including the appropriate rates, taxes for the farm property owners).

Although rezoning applications are spearheaded by the town planning unit, determining the bulk infrastructure contributions and levies before construction of infrastructure also requires *internal coordination* between different departments, directorates and units such as town planning, local economic development, infrastructure (roads, water and sanitation) the electricity department and finance, which are central in assessing the proposed development plans for infrastructure related projects in the municipality. The Spluma legislation is clear about the importance of putting in place a policy framework for planning for spatial development and land use by municipalities. Small rural municipalities with low capacity such as eMthanjeni Municipality, which have few infrastructure-related economic development activities, often lack the experience and expertise of dealing with mega-infrastructure projects. Moreover, these municipalities also do not have extensive financial resources for recruiting qualified town planners and setting up a division for town planning in order to increase the internal town planning capacity for the implementation of the Spluma legislation.

In their research, Phadi and Pearson have brought to our attention a pattern in the deficit of skills in the planning departments of low- and medium-capacity municipalities that prevents them from enforcing legislative compliance according to the Spluma Act for property owners and developers.⁶² This was evident in the case of eMthanjeni Municipality, which was not able to apply some of the processes highlighted by the Spluma Act in the planning for the renewable energy projects. Emthanjeni Municipality's town-planning function was relegated to the project management unit in the municipal manager's office and had only one member of staff. The lack of agility and urgency in filling the town-planning vacancy was

62 Phadi, M. and J. Pearson (2018) 'We are Building a City: Governance and the Struggle for Self-sufficiency in Lephalale Local Municipality. PARI report, p15.

translated into poor planning for infrastructure to support the renewable energy developments. The way in which renewable energy was developed in eMthanjeni Municipality mirrors a worrisome pattern for infrastructure development of mega-projects in rural municipalities.

Once construction ended, the municipality was left with deteriorating infrastructure and insufficient revenue collected from the solar companies to repair and maintain the roads destroyed by the heavy traffic movements of trucks and labour force. This might have been prevented with better planning processes.

2.7 IPP Lease Agreements: Land Utility, Agriculture and Commercial Activity

Another aim of deracialising local government is to transform the apartheid legacy of spatial inequality by empowering communities to participate in the local economy. Local government's spatial map of municipalities features deep socioeconomic inequalities, particularly in land ownership, which is intertwined with a racialised distribution of wealth, income and economy that favours white minority landowners and their commercial entities.

Availability of land is central to the development of solar and wind renewable energy infrastructure. Economic opportunities relating to renewable energy infrastructure development and investment are primarily determined by access to capital investment and property ownership; lack of access to the aforementioned continues to exclude African entrepreneurs from participating in the local economy. This dynamic of land ownership also affects rural municipalities in the Northern Cape province that are largely surrounded by agricultural and mining land. The 2017 Land Audit Report⁶³ revealed that:

The Northern Cape province has a total of 32 million hectares of land, making it the largest landmass in the South Africa. Farms and agricultural holdings take up 15 million hectares in the province, of which 77% (11.5 million hectares) is owned by Whites. Africans only own 1% (69 350 hectares), while Coloureds own 15% (2.2 million hectares), Indians own 5% (746 820 hectares) and 3% (414 065 hectares) is owned by 'other'. The large proportion of this land is predominantly owned by white farm owners and mining corporates.

Source: Land Audit Report, November 2017 (Phase II: Private Ownership by Race, Gender and Nationality)

In the case of eMthanjeni, the municipality is enveloped by private agricultural land owned by white farmers who leased the land to REIPPPs. IPPs require vast amounts of land to set up PV solar arrays or wind farms. One of the problems cited

⁶³ Land Audit Report, November 2017, https://www.gov.za/sites/default/files/gcis_document/201802/landauditreport13feb2018.pdf (accessed 4 February 2021).

by municipal officials and councillors with regard to excluding local government from participating in the early stages of the bid cycle is the IPPs preference for leasing land from private owners.

There is currently no legislative requirement to compel IPPs to explore leasing options from the municipalities. Although most municipalities have very little ownership of land within their municipal jurisdiction, some municipalities, such as eMthanjeni, have access to commonage land that can be leased for the development of solar and wind turbines.

The majority of these IPP wind turbines are erected on private land owned by white farmers. White farmers are collecting lucrative revenue, revenue that the municipality should also be collecting if we were given first preference in signing lease agreements, which would have added to our capital budget in order to fund our infrastructure.⁶⁴

Although there are no formal public records that disclose the lease agreement amounts between IPPs and farm owners, eMthanjeni municipality revealed that it came across information pertaining to the lease agreements between the farm owners and renewable energy companies. This information showed that the IPPs are paying rental of between 500,000 and 1,000,000 rand a month to farm owners. This demonstrates the skewed renewable energy economic beneficitation and empowerment of white minority landowners in the REIPPP.

Moreover, the municipality's inability to implement spatial rezoning and the legislative ambiguity in terms of defining the economic sector for renewable energy electricity has caused confusion for the municipality which prevents them from 1) applying a spatial redetermination from agricultural to industrial rezoning, and, 2) from collecting property rates and taxes based on the commercial activity.

When it comes to property taxes, the majority of the renewable energy farms are located on private property. There's a legal obligation on the property owner, not the IPP, to pay for rates and taxes. This is the bone of contention between the municipality and the farm owners, where we [municipality] are arguing that the portion where the renewable energy solar and wind turbines is located can no longer be categorised as agricultural property but commercial property. Some of these agricultural farms were no longer operating any commercial agricultural activities until the arrival of the IPPs. The property owners are disputing this because they are resisting to pay commercial business taxes for their agricultural properties. Hence the municipality has taken the farm owners with IPPs on their land to court.

64 Interview with CFO, eMthanjeni Municipality, 7 November 2020.

Municipal officials have also expressed the difficulties they have encountered with quantifying the property value of the renewable energy infrastructure built on agricultural land:

It is difficult for the municipality to evaluate the infrastructure of IPP solar panels and wind turbines. Instead, we have spoken to the municipal property valuations and opted to use the IPPs rental contracts with the farm owners in order to work out the capitalisation percentage, including the present value of the property in order to determine the market value according to the Municipal Property Act.⁶⁵

Secondly, the municipality has been receiving complaints from residential property owners, including other farmers, who do not have renewable energy infrastructure in their farms. 'They are making enquiries about how much are they [IPP farm land lords] for their property rates?'⁶⁶

Residential property owners have disputed the fact that IPP farm land owners are paying less property taxes under agricultural property while they are earning additional rental income from the IPP and demanding further discounts.

For example, according to legislation, the municipality cannot charge more than R2,500 per month for agricultural property. Yet the farmer can take R2,500 as a business expense while the residential property owners must pay property rates from their disposable income. And it's difficult to evaluate their IPP business and infrastructure in order to re-determine the commercial rates for the IPP farm land owners.⁶⁷

Levies are essential, particularly for municipalities without maintenance and repair budgets.

Our biggest mistake was not advising council to adopt levies for the IPPs before the construction process which would assist with the repair of infrastructure. As time went on, we only then observed that our infrastructure was beginning to take a toll from the industrial equipment that was transported into the farms, especially the heavy wind turbine blades loaded onto the big trucks that were using our municipal roads. This also includes the overloaded sewer system, water and electricity ... I mean we are a small municipality and our infrastructure did not have the capacity to service the amount of people we had in the municipality during the construction phase.⁶⁸

⁶⁵ Interview with CFO, eMthanjeni Municipality, 7 November 2020.

⁶⁶ Interview with CFO, eMthanjeni Municipality, 7 November 2020.

⁶⁷ Interview with CFO, eMthanjeni Municipality, 7 November 2020.

⁶⁸ Interview with the corporate services manager, 6 November 2020.

While provinces such as the Western Cape have implemented tourism levies, similar policies should have been introduced for the renewable energy sector to ensure the redistribution of financial resources from national and provincial to local government. Nevertheless, it goes without saying that inexperienced and poorly capacitated municipal administrators may overlook these issues. A renewable energy levy could have assisted with mitigating the environmental and structural risks associated with the ageing infrastructure caused by the construction of renewable energy infrastructure. These are issues that could have been represented by Salga in the policy development process of the IPPs.

Another formative policy oversight is related to the problem of introducing renewable energy commercial activities on agricultural land without applying a cost-benefit analysis to determine its implication to food and environmental security, bearing in mind that the Northern Cape's agricultural economy produces food for both domestic and export markets. As the former local economic development (LED) manager at Pixley ka Seme District iterated:

You need to take into account that for every 75 MW of energy generated, 300 hectares of agricultural land used for food security (crop and food production and livestock grazing) is compromised.⁶⁹

In other words, the production and revenue losses incurred by the agricultural land owners are often not included in the EIAs done by the IPP developers. This also makes it difficult to determine whether the rental amount paid by the IPP companies to the farm owners is justifiable according to the productivity and revenue contribution losses they will incur once they shift from agriculture to renewable energy commercial activities.

A cost-benefit analysis of renewable energy and food security would help determine the real value of unused and unproductive land, and assist in determining whether or not the rental charged by farm owners is inflated. When these amounts came to the knowledge of the municipal officials, the municipality attempted to get the farm owners to revert to the rezoning application process to the municipality, which complicated the process. The farm owners have refused to cooperate, stating that the status of their properties is still agricultural. The municipality has litigated against the farm owners, and the case is still pending at the High Court.

⁶⁹ Interview with the former LED manager, Pixley Ka Seme District Municipality, 13 November 2020.





There have been talks about bringing manufacturing of solar parts to eMthanjeni Municipality. Solar Capital was one of the IPP companies leading this venture and even attempted to secure land from the municipality to set up the factory. This was a good idea, but the municipality was not ready for hosting an industrial zone; the project hasn't taken off. Remember, if a company wants to set up an industrial plant, the municipality will have to provide electricity and water needed for production. Currently, we have a huge Eskom debt, which prevents us from increasing our electricity supply for industrial demand.

LED manager, eMthanjeni Municipality, 9 November 2020

Green Economy: A Panacea for Remodelling Rural Economies

3.1 Local Economic Development

Before the renewable energy projects, the eMthanjeni Municipality depended primarily on its agricultural economy – mainly stock farming (sheep, mutton, Merino wool farming) and game farming – which accounts for the largest labour employment. The community service economy (banking, retail, food and beverage) accounts for the bulk of the tertiary local economy; the growth and contribution of this sector into the local GDP is incomparable to other medium- and high-capacity towns and cities in South Africa. In the midst of a declining local economy and demand for commodities (natural mineral resources) resulting in job losses in the Northern Cape after the 2008 global financial crisis, there was an increase in social grant dependency and clamour for government jobs. Although eMthanjeni Municipality prides itself on relatively steady growth in the tourism sector, the economic demographic representation of this sector is skewed – particularly the game-farm safaris, hospitality (accommodation and restaurants) and colonial-heritage tourist attractions, which are predominantly owned by the minority white population.

When the REIPPP investment projects finally landed in eMthanjeni Municipality in 2010, there was excitement about the incoming investment opportunities needed to boost the local economy and the amount of jobs that were going to be created. This brought hope to the local economy. The REIPPP programme, from the onset, was positioned as an economic gamechanger for the country and local host municipalities. This stifled a critical debate on what real socioeconomic benefits would be derived from these projects at local level. In other words, there was little thought given to the long-term sustainability of the economy post the construction phase of the renewable energy farms. The corporate services manager noted how the *de facto* location of the REIPPP programme in the Local Economic Development (LED) programme at local government level reinforced the idea of centralising the economic beneficiation as a solution to all economy-related problems such as poverty, inequality and unemployment. This created a disconnection with social, education, skills and infrastructure-related issues that required synchronised planning with other stakeholder and departments in the municipality.

The assumption that the life of renewable energy projects is self-regulated by the IPP sector places pressures on eMthanjeni Municipality to diversify the economy using socioeconomic development (SED) and enterprise development (ED)

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spend to accommodate the post-production phase of renewable energy projects. The assumption made in the Integrated Resource Plan or IRP (2010) is that the renewable energy production phase has a potential lifespan of 30 years (2040). Hence, eMthanjeni Municipality has attempted to align its LED strategy with the IRP, which compels municipalities with low economic activities to develop their LED strategy around the IRP life span. This path-dependency has placed municipalities such as eMthanjeni Municipality in precarious positions. The dependency on IRP for LED has overlooked the risk factors associated with transitions between the REIPPP phases. According to the economic investment trends of eMthanjeni Municipality, the renewable energy sector investments during 2010-15 grew the local economy from 1.4 to 6 per cent due a boom in the construction of the solar energy farms.

However, after the second phase (2016-20) of the REIPPP wind turbine construction period, the local economy experienced a sharp decline in economic investments due to the end of the REIPPP programme. Moreover, the municipality was not able to tap into the SED and ED resources because the IPPs had been locked into loan repayment agreements for a period of six to ten years. Nevertheless, the municipality is still optimistic about the economic spinoffs brought by this sector. The municipality plans to utilise the revenue/income generated through SED and ED to bring in more investments through manufacturing of renewable energy components and construction material (brickmaking), off-the-grid projects (solar panels and solar panel maintenance), local procurement from solar companies and government, skills development and revitalisation of the rail and road network. In terms of communication, IPPs struggled and some neglected developing broad-based communication strategies with the municipality and various stakeholders at the local level. This stakeholder engagement requires interaction with the local labour forums, the municipality, communities represented by ward committees and councillors, the business forum, local civil society and non-governmental organisations. The absence of a broad-based communication strategy with local stakeholders and state actors is one of the factors that led to fragmented employment practices, which in turn led to outsourcing skilled labour and contractors from outside of the Northern Cape province, thus alienating local communities from participating in local procurement and employment.

Once the IPPs had obtained a go-ahead from the municipal council, land identified for setting the renewable energy wind turbines was primarily privately owned agricultural land. The argument raised particularly by the IPPs is that wind turbines require vast land space to accommodate the large volumes of renewable energy infrastructure, which most municipalities do not have. However, according to the municipal manager, eMthanjeni Municipality in fact had unoccupied commonage land that the IPPs could have leased or purchased from the municipality. Nevertheless, the lease agreements between the IPPs and farm owners were already instated without consulting the municipality to establish the availability of commonage land before approaching private farmland owners within the municipal boundaries. This process excluded the municipality from the larger economic beneficitation, which could have potentially raised the revenue and income of the municipality.

The IPP private companies delivered their proposals to the council. The presentations delivered by the IPPs to council were structured in a manner that emphasised on the benefits of job creation, SMME development and social contribution once they started generating money. Job creation was dangled as a carrot to councillors, who obviously were desperate to bring job opportunities to desperate communities. Hence little thought was given to the real long term benefits of these IPP projects.⁷⁰

Municipal officials note that social contributions did not provide the municipality with explicit details of how this would work since this aspect is regulated by the national government and decisions are made by the IPP companies. Another aspect which was overlooked by the municipality is that the renewable energy sector is an automated economic activity compared to mining minerals such as diamonds and gold. It is characterised by two phases; the construction and operational phases. Therefore, once the construction phase comes to an end, labour activities and demand reduce significantly during the operational phase. This also creates uncertainty for long-term local economic activities relating to job creation and employment of local communities. While there is a higher demand for low-skilled workers during the construction phase, high-skilled workers such as engineers are mostly required during the operational phase. The consequence of this is laying-off many low-skilled workers once the construction phase has ended.

3.2 Municipal Revenue

For the municipality, the billions of REIPPP investments were interpreted as a way of creating employment that would transform the livelihoods and material conditions of communities. This was needed to ensure that communities have an income to pay for municipal services and thereby improve the payment culture. The chief financial officer notes that ‘as a municipality, we were looking forward to an increase in payment for services.’⁷¹ Although there was an influx of migrant labourers into the municipality, the chief financial officer made financial observations through municipal accounts that the payment culture did not improve as had been expected. In addition, the municipality did not experience a significant increase in revenue. In other words, although there was an economic boom, the demand/utility of municipal services such as water, sanitation and electricity did not directly translate into significant revenue generation for the municipality during the period of 2011-16. ‘Yes, we did see a drop in the indigent household register. Almost every household had someone working and therefore households were able to pay for water, electricity and refuse collection. But people continued to avoid paying their municipal bills. There was no tangible improvement in the cash reserves of the municipality.’⁷² During the construction period, the municipality did not have Eskom debts and had maintained improved audit outcomes and financial performance. There were few

⁷⁰ Interview with corporate services manager, eMthanjeni Municipality, 6 November 2020.

⁷¹ Interview with the CFO, eMthanjeni Municipality, 7 November 2020.

⁷² Ibid.

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service-delivery protests and communities were preoccupied with employment activities. Despite the stagnant revenue collection, municipal financial stability coexisted with an increase in infrastructure repairs and maintenance expenditure, particularly road repairs due to the high traffic volumes of construction vehicles. Increasing expenditure for repairs and maintenance as a result of construction activities began to take a toll on the municipal budget after the construction period. 'Our municipality does not have a budget for repairs and maintenance. Even if these trucks were moving in between national and provincial roads, when they make a turn into De Aar, they damage the municipal roads. They only pay taxes to Sanral (South African National Roads Agency) and we get nothing for the damage they cause to our municipal roads.'⁷³

Both municipal officials and councillors attested that when the IPP construction phase came to an end, most community members and migrant workers were left unemployed due to the decline in the number of workers required for the maintenance of the solar parks and wind turbines. Unemployment rose again, which had a negative ripple effect on revenue collection for municipal services. By 2017/18, the municipality recorded a budget deficit and loss of R88 million, which can be attributed to a 16 per cent increase in expenditure, while revenue grew by only 1 per cent; and the 25 per cent increase in employee cost is particularly concerning.⁷⁴ Moreover, the municipal funding system is highly reliant on 70 per cent rates and the collection of water and electricity tariffs. This placed the municipality in a disadvantageous position – as an under-resourced municipality that has neither sufficient revenue collection capabilities, nor the economic growth needed to boost its capital budget to build new infrastructure, particularly for the informal settlements that grew after the construction period due to in-migration.⁷⁵

In essence, post the construction phase, the municipality was no longer able to meet its financial obligations to Eskom. In the midst of the economic downturn and poverty, eMthanjeni Municipality's Eskom debt currently sits at R56 million.

The irony is that while we have a number of IPPs in our backyard that are supplying cost effective renewable energy to Eskom's grid, we are sitting with a R56 million Eskom debt and we are not benefitting from anything in relation to the electricity tariffs from Eskom. We can't even draw up a direct beneficial agreement with the IPPs because the IPPs are not legislated to operate at local government level. Our communities are asking us why they are not seeing a reduction their electricity bills when we have IPPs in our municipality?⁷⁶

⁷³ Ibid.

⁷⁴ Auditor General South Africa (AGSA) (2020), Consolidated General Report on the Local Government Audit Outcomes (2018/19). <https://www.agsa.co.za/Portals/0/Reports/MFMA/201819/GR/MFMA%20GR%202018-19%20Final%20View.pdf> (accessed 14 August 2020).

⁷⁵ According to the eMthanjeni Municipality Annual Report (2018/19), 4 114 households still do not have access to electricity whilst waiting for the Department of Energy to approve the electrification application for these households.

⁷⁶ Interview with the CFO, eMthanjeni Municipality, 7 November 2020.

Although solar lighting and solar geysers have been made available for poor households in other township areas in eMthanjeni Municipality, not all poor households have access to solar geysers and electricity, particularly the 7,905 informal settlement households in the municipality. The auditor general's report raised concerns about communities tampering and bypassing electricity meters, which translates into electrical supply losses to consumers at eMthanjeni Municipality. The auditor general's report also highlighted the increases in energy losses (from 11 per cent in 2017/18 to 17.8 per cent in the 2018/19 financial year) which have contributed to the electricity revenue loss. Although bypassing electricity through illegal connections is considered to be criminal, such actions also demonstrate a level of desperation experienced by communities as a result of increasing electricity costs and escalating levels of poverty.

The municipal manager also explained that

While the National Energy Regulator of South Africa sets tariff increment regulations for municipalities, on the other hand Eskom tariffs for municipal bulk purchasing of electricity has increased over the years, which has placed the municipality under financial pressures with regards to electricity distribution revenue losses. The reduction in the local government equitable share does not help to alleviate the financial pressures we are faced with rural municipalities.⁷⁷

Additionally, eMthanjeni Municipality began to experience an upsurge in community protests due to the electricity tariffs hikes following the construction period. During field work, the researcher witnessed a protest staged in front of the municipal buildings in De Aar on 6 November, 2020. Protestors were demanding that communities be allowed to purchase electricity directly from Eskom, as an alternative to the high electricity tariffs being charged by the municipality.

3.3 In-migration

During the construction phase, there was a visible boom in population and economic activities in the local municipality. Local labour migrants came from as far as Kimberley and Upington, including towns from the neighbouring Free State and Eastern Cape provinces (Bloemfontein, Aliwal North and Bedford West). The population upsurge had a ripple effect in the demand for goods, services and amenities such as accommodation, clothing, food and beverages, transportation, banking and municipal services (electricity, sanitation and water). The shortage of accommodation led directly to the eruption of informal settlements and a demand for land. The influx of migrant workers and high demand for both long- and short-term accommodation had a huge impact, particularly in De Aar. The LED manager recalls only two to four white-owned registered guesthouses between 2006 and

⁷⁷ Interview with municipal manager, 6 November 2020.

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2010. When the renewable energy projects came into the municipality, ‘fly-by-night landlords took advantage of the scarcity of rental accommodation’⁷⁸ which led to speculation and spiralling rental prices. According to the corporate services manager, ‘rentals for a three or four bedroomed house escalated from R1 000 to R20 000 per month.’⁷⁹ While it was noted that international renewable energy experts, business people and engineering consultants would only require short-term accommodation for the duration of their stay, the local consultants and contractors who were based in Johannesburg, Cape Town and East London would fly in and out of De Aar via the Kimberley airport on a weekly basis.

Contractors from Johannesburg and Cape Town ... your affluent middle-class people mostly wanted comfortable, secure guesthouses to stay in town. Again, these guesthouses are white-owned businesses. The amenities that they were looking for, township guest houses were not able to provide them.⁸⁰

These dynamics relating to the capacity of emerging entrepreneurs in the hospitality sector contributed to a significant financial boost for the few already established guesthouses belonging to white property owners. They, along with a few African middle-class elites residing in De Aar, were able to secure long-term rental accommodation lease agreements with IPP contractors and benefited profitably from these arrangements. Moreover, white-owned hospitality establishments including restaurants, were able to increase their capital substantially. They used the capital to purchase additional residential property for expanding their guesthouse capacity. The chief financial officer stated that ‘during the construction phase, historically disadvantaged communities, who do not have the capital, had to compete with historically privileged business owners with big business entities, who already had the capital and assets to provide hospitality services. The municipal property evaluation register grew favourably for the white community during that period.’⁸¹ Onsite engineers and project managers who were overseeing the day-to-day construction of the solar and wind turbine construction sites, enjoyed the privileges of cost-to-company accommodation that was subsidised by the IPP companies. This meant better rates and long-term rental security for white property owners.

Similar to the development trends of mining towns such as Kathu (Gamagara Municipality), there was an expectation from the municipality that demand for accommodation would lead to a demand for land to invest in private residential development. However, this did not happen. The chief financial officer had come to notice that

78 Interview with LED manager, eMthanjani Municipality, 9 November 2020.

79 Interview with the corporate services manager, eMthanjani Municipality, 6 November 2020.

80 Interview with the LED manager, eMthanjani Municipality, 6 November 2020.

81 Interview with CFO, eMthanjani Municipality, 7 November 2020.

Over the years, we found that property development did not quite happen like how we had imagined. Yes, there were short-term investments made into the hospitality sectors but there was not 'real' property development ... in the sense that we didn't see a demand for private property development for new housing developments like it would happen in the mining towns ... where engineers and professionals would require long-term housing because they are stationed at the mines as full-time managers and operational staff. Such developments contribute substantially to the municipal fiscus.⁸²

On the other hand, the large group of unskilled, semi-skilled and skilled migrant workers who provided full-time labour on the construction sites over the two to four years were not provided with any accommodation subsidies from their contractors. Therefore, general workers and artisans had to look for their own accommodation and pay expensive rentals out of their own wages, which then gave rise to the black-market of unregistered guest houses and lodges, including the upsurge of informal settlements.

Property owners saw a gap in the local rental market's failure to provide general workers with affordable accommodation in the township. They converted their private dwellings into lodges, while others began to take up home loans on new properties to increase their rental capacity. Most property owners in the townships moved out of their homes and erected shacks, while some built semi-detached single-room flats and backyard shacks. 'The economic boom left us with all sorts of problems'⁸³ said the corporate services manager. When asked about the implications for communities who borrowed money to meet the demands of these unplanned infrastructural developments, he stated that

Four to six years later, homeowners are still struggling to pay back the loans they took to upgrade and build new properties to rent out to the IPP construction workers. Some of them got used to getting an extra rental income ... now that there is no more construction and no demand for housing, they don't want to go back to their homes. They want to continue living in the informal settlements in order to pay back the loans through renting out their homes to seasonal workers. That's why we see BMWs and Polo vehicles parked outside of informal settlements at night because they moved out of their homes in order to rent them to IPP construction workers.⁸⁴

The LED manager introduced another complexity to the increased demand for housing during the construction period: 'We also have a huge number of unregistered

82 Interview with CFO, eMthanjeni Municipality, 7 November 2020.

83 Interview with the corporate services manager, eMthanjeni Municipality, 9 November 2020.

84 Interview with corporate services manager, eMthanjeni Municipality, 6 November 2020.

guesthouses that ballooned during that time, of which they are currently not paying business rates and taxes to the municipality. The informal settlements which erupted during the construction of the solar farm have also caused a disruption in our spatial planning.⁸⁵ The chief financial officer corroborated the above impact of the renewable energy development projects, 'Although the town was buzzing and alive with economic opportunities, but there was also a mess. We were not ready for this development at such a massive scale, which required a lot of labour. It contributed to the proliferation of informal settlements, a problem that we did not have at this scale in eMthanjeni Municipality.'⁸⁶ Municipal officials recalled how one solar company had to organise rental for 100 employees in an uncondusive place that did not meet the occupation health and safety standards. 'We had to send building inspectors to do an inspection in some of the houses due to the complaints we were receiving, cited problems of overcrowding and poor compliance with building safety regulations.'⁸⁷

3.4 Anti-Social Behaviour: Alcohol Abuse, Sexually Transmitted Diseases and Gender-Based Violence

The in-migration of male workers from other towns and neighbouring provinces had its own social implications on the community, particularly on the social private relationships between men and women. Statistics accessed from the local clinics and hospital by the municipality showed that they had recorded an increase in sexually transmitted diseases, teenage pregnancy, alcohol abuse, rape and transactional sex (sex work) among underage girls. Drawing from sociodemographic patterns of migrant systems, the majority of migrant labourers were men who had left their wives and partners back home. It was noted that they pursued relationships with local women and underage girls, particularly vulnerable young women who were less educated and unemployed. Municipal officials highlighted the parallel social dynamics outcomes, citing that although the municipality and local police stations had recorded a significant reduction in crime statistics (theft, house break-ins, stabbings) because most community members had access to employment opportunities, there was an increase in gender-based sexual violence and prostitution.

In 2014, an underage girl was allegedly gang raped by a group of Italian male migrant workers between the ages of 24 and 47, who were employed by Costruzioni Moncada Italia, one of the IPP companies subcontracted by Solar Capital. This incident made national news headlines.⁸⁸ There is often an assumption made about the predisposition and vulnerability of young girls from deprived backgrounds, who are highly likely to fall victim of sexual exploitation and violence in the hands of migrant male labourers. On the other hand, it was found that young girls who came from relatively privileged backgrounds also fell victim to sexual offenders coming

85 Interview with the LED manager, eMthanjeni Municipality, 9 November 2020.

86 Interview with the CFO, eMthanjeni Municipality, 7 November 2020.

87 Interview with corporate services manager, eMthanjeni Municipality, 6 November 2020.

88 Monica Laganparsad, Sunday Times. 4 April 2014, 'Teens anguish casts a shadow over solar project in De Aar' <https://www.timeslive.co.za/sunday-times/lifestyle/2014-04-20-teens-anguish-casts-a-shadow-over-solar-project-in-de-aar/> (accessed 4 February 2020).

from the community of international migrant workers. The latter is relevant to the rape case. A senior municipal official from eMthanjeni Municipality was quoted in the Sunday Times: 'These Italians are the worst. They act like Kenny Kunene, flashing their money.'⁸⁹ This clearly expressed their disenchantment with the masculine behaviour displayed through flaunting of material resources by international migrant workers who earned more than the local male general workers, with the objective of soliciting sexual favours from young women. Another community member further stated in the newspaper article that 'one would expect them to wear Giorgio Armani, but there's nothing special about them. They wear the same clothes as us'.⁹⁰ After that incident, communities and parents of young girls began to feel uncomfortable about the safety of their children even though it was alleged that crime statistics had reduced. This is what one of the parents expressed in the newspaper article: 'They [the foreign workers] must rather go back ... they are not boosting our economy ... they've brought a criminal element instead ... our children are not safe anymore.'⁹¹

This suggests that not only did in-migration reinforce existing socioeconomic gender power dynamics as a result of an influx of male migrant workers, but also it disrupted the masculine power relations between local and international male migrant workers. It seemed to have created insecurities among the local men who felt that their masculinity and status was threatened by migrant men, who flaunted their privilege and displayed a sense of entitlement over the local girls and women. The Solar Capital community liaison manager reflected that, 'When this incident broke out, the shareholders were livid. Solar Capital had to do some serious damage control because they were worried about how this could affect the reputation of their company.'⁹²

3.5 Job Creation and Skills Deficit

Trade unions have criticised the REIPPP programme for under-delivering on the green jobs promises, and criticisms around the proportionally limited number of jobs created in the operations and maintenance phase have emerged from National Union of Mineworkers of South Africa and Congress of South African Trade Unions. A survey across plants conducted by Sam Tambani Research Institute (Satri) in the Northern and Western Cape provinces pointed to concerns on the number and quality of jobs available for workers in the REIPPP process.⁹³ One of the objectives of Satri's ongoing research is to assess the implication of the proposed energy mix on workers and their communities. With regard to job creation, it was found that most of the power stations visited by Satri did not achieve the 50 per cent threshold target in terms of the IPP requirements.⁹⁴ In general, though, it appears that job

89 Ibid.

90 Ibid.

91 Ibid.

92 Interview with former Solar Capital SED coordinator, 5 November 2021.

93 https://satri.org.za/wp-content/uploads/2019/11/Satri-Annual-Report-2018_2019_compressed_compressed.pdf.

94 Ibid., p15.

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creation was not high at the power stations that were visited by Satri. Proponents, however, suggested that a wider proliferation of IPPs with increased policy certainty on future capacity determinations could create enough demand for deepening levels of manufacturing of components of renewable energy systems, which could create quality jobs.

Before the arrival of the IPPs in eMthanjeni, the municipality was faced with a dire situation of high unemployment and poverty. Approximately 58 per cent of the working-age population were unemployed or had stopped looking for work by 2005. The IPP project development decreased the unemployment to 37 per cent. While employment opportunities opened up during the construction phase, only 27 per cent of the population had matric and only 9 per cent of the population had post-matric, higher education and professional skills. This signalled a significant risk in the shortage of skills acquisition from the local community (professional, technical artisan and engineering skills) that would be required in the construction, assembling of photovoltaic (PV) solar panels and connecting them to the grid. Skills that were required during the construction phase ranged from high-level skills (professional structural and electrical engineers, quantity surveyors), technical skills (artisans such as bricklayers, plumbers, electricians, welders) and semi-skilled to unskilled general workers. Therefore, as statistics show, eMthanjeni Municipality does not have a highly skilled workforce and most community members do not have highly professionalised education levels. Hence, among the local migrant workers, there were a significant number of international migrant workers who came to work on the renewable energy farms.

The majority of South Africa migrant workers, who were unskilled general workers, were African men from impoverished backgrounds. The minority of highly skilled professionals and international experts that came from outside the country were mainly white Italian, Chinese and British male engineers, with renewable energy expertise and educational backgrounds. This means that the IPPs such as Moncada (Italy), Globaleq (UK), Mulilo (China) and Solar Capital had contracted their own nationals to work in South Africa. Interviewed in a focus group, community members who worked on the solar farms made reference to the large community of 'foreigners who were mainly appointed as engineers, project leads, supervisors and team managers of the construction, assembling and operation of the solar and wind turbine equipment'.⁹⁵ During the construction period, communities raised their concerns about the skewed racial composition of the workforce, particularly the group of white men who were predominantly employed as engineers. The municipality was able to bring these community concerns to the IPPs' attention. With regard to recruiting local workers, this was done periodically using word of mouth through social networks in the communities, councillors passing on information through ward committees and their own branch party structures.

95 Focus-group interview with former IPP workers, 13 November 2020.

There were also no proper processes and mechanisms for open communication in relation to recruiting workers, which also raised complaints from local communities. The representation of African female engineers and experts was abysmal. The poor participation of women in the construction of the solar parks, particularly, was raised as a concern by the communities in the first phase of the construction. The substantial number of women employed were mainly general workers on the construction sites. The IPP contractors had to reconsider and comply with the economic development and employment equity in relation to gender, race and disability, including local procurement. Women were paid equally to men, in accordance to their skills level and job related responsibilities. Due to emerging labour practice problems that were brought to the attention of the IPP steering committee, Solar Capital decided to contract a labour brokering company, which caused further problems with regards to remuneration. Other IPPs decided to engage with the Department of Labour to assist with recruiting local workers through their database.

To circumvent these labour-related issues, Solar Capital, which was one of the first IPPs to develop the solar plant in De Aar, appointed a socioeconomic development (SED) coordinator during the construction phase to assist with communicating and liaising with communities on matters concerning employment. The SED coordinator alluded that

I had to make sure that we set up proper recruitment procedures such as ensuring that jobs were advertised in the local newspaper in order to avoid complaints from the communities that only people who are connected with certain people are getting the jobs. We had to emphasise the aspect of employment for local residents living within a 50km radius in order to mediate the tensions between local and in-migrant labourers from other towns and provinces. The 50km radius was initially the agreement with the DMRE and REIPPP as a criterion for beneficiation and we just needed to enforce it ... unless we couldn't find a specific skill locally, then we had to draw skills from other towns.⁹⁶

The IPP steering committee which comprised representatives from the municipality, community leaders, the local labour forum, and the Siemens company as the main contractor with their subcontractors. The IPP steering committee met monthly to discuss progress and new developments, including communicating decisions taken by the IPPs. Reports from the IPP stakeholder steering committee were compiled and shared with all stakeholders. This steering committee structure ensured that consultation and information was made available to the stakeholders. Hence, later in 2014/15, during the second implementation phase of the construction of solar panels, the priority of employing South Africa local engineers from the province of the Northern Cape province was considered, although in terms of numbers, the majority were still coming from outside the Northern Cape province.

⁹⁶ Interview with Solar Capital SED coordinator, eMthanjeni Municipality, 5 November 2020.

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In terms of skills transfer and development, Solar Capital managed to provide supervised on-the-job training on installations for the various levels of workers, due to the fact that the majority of workers did not have previous experience in assembling PV solar and its components. On-the-job training came with the benefit of providing workers with skills that were applied in the next phases of construction and installations, which enabled them to work independently. Since these projects were not properly planned and conceptualised as a skills-transfer and skills-development process, workers were not able to get accreditation; to be able to produce some evidence of credentials when they seek employment in other renewable energy construction projects in the Northern Cape province. Only after the challenges the municipality faced during the construction of the solar farms in the first phase, did municipalities realise that they did not do enough groundwork to prepare themselves for the REIPPP project development.

3.6 Labour Disputes and Legislative Non-Compliance

Beyond the social tensions between local and in-migrant workers mentioned above, there was also confusion about the wage rates to be applied in the construction of renewable energy farms. There were perceptions that the renewable energy sector had rates different from the infrastructure construction sector – most solar companies, who were using labour brokers, took advantage of this misunderstanding to negotiate lower wages, to push down labour costs for the IPPs. Some companies paid workers R50 per day; significantly lower than the R100–R150 minimum daily rate paid to general workers in the construction industry. Moreover, the Department of Labour did not provide clarity about construction industry rates, which are paid according to the skills sets guided by the Basic Conditions of Employment Act of 1997, which protects workers from exploitation by their employees.

The Labour Act also limits workers to a 45-hour week, no more than 10 hours of overtime work and only five working days a week, unless an agreement for overtime compensation has been reached between the employees and employer. Community members who worked for the renewable energy companies noted that some companies did not comply with labour regulations. Besides the low-wage labour disputes, some workers were not paid by the IPP companies for their overtime work.

Other workers were not provided with proper amenities and facilities on the construction sites, including temporary shelter in the field during the sunny and rainy seasons. Due to the vastness of the farms, toilets and taps were a considerable distance from the work stations. Some workers noted that they were co-opted into overtime work with very low incentives because the IPPs were chasing tight production deadlines while trying to minimise labour costs. It was noted by municipal officials that local labour inspectors were unable to intervene when non-compliance with labour laws was reported to the municipality. This includes non-compliance with occupational health and safety standards on the solar plants. The lack of financial liquidity of black-owned SMMEs, that were locally procured as subcontractors to provide electrification, introduced another dynamic to the labour disputes due to late payments for services, as workers were not being paid their wages on time.

3.7 Local Procurement and SMME Partnerships

As demonstrated by the composition of local partnerships between the international renewable energy companies in chapter 2, IPPs are constituted by international or multinational corporations in the renewable energy sector, who form partnerships with well-established South African companies through selling BEE shares or consortium partnership formation. This particularly refers to BEE companies with proximity to power and connections to influential political elites at national level. Although the life and construction development of renewable energy projects happens at the geographical location of the host municipalities, the host province of the Northern Cape and its municipalities remain excluded from participating in the formation of local partnerships with the international group of renewable energy companies.

When the renewable energy project landed in eMthanjeni Municipality in 2010, small and medium-sized enterprises (SMMEs) located in eMthanjeni Municipality participated in the renewable energy construction phase for the very first time, mainly as subcontractors to construction companies appointed by the IPPs. This offered them a unique opportunity to profit through new business relationships with the implementing companies. However, many SMMEs required additional support to elevate their business practices, which would have allowed them to satisfy the new and often multinational clients. Therefore, SMME partnerships, subcontracting and procurement of goods and services for renewable energy were highly contested. This was particularly true for projects with BEE components, which tended to benefit companies in the metropolitan areas which had formed consortiums with the global companies. It was also noted by the municipality officials and councillors that locally owned SMMEs that benefited from the IPP local procurement were predominantly white-owned companies. The waste water and infrastructure manager made the following observations: 'The white business community were the ones who benefited a lot from the IPP rental, construction, electrification and construction contracts.'

Firstly, the IPPs subcontracted service providers that were mainly outside the municipality and the Northern Cape province jurisdiction. The renewable energy equipment such as wind turbines and PV solar and their components, are manufactured and procured directly from countries such as China, Germany and Italy by the IPPs. On the other hand, construction materials like steel and cement were mainly procured nationally from already established companies located in the metropolitan cities in neighbouring provinces such as the Free State, Eastern Cape and Western Cape provinces. A local business owner stated, 'There was a glaring bias practiced in the subcontracting of South African white-owned engineering and construction companies, who were in partnership with BEE companies, that did not have a local footprint in the Northern Cape nor our municipalities. Hence there is no real economic transformation when it comes to local ownership and benefits for local businesses in the construction industry, which constitutes the bulk of work required in the renewable energy development.'⁹⁷

⁹⁷ Interview with the Mr Ronald Cloete, Tax Operator, eMthanjeni Municipality, 13 November 2020.

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The LED manager made similar observations with regards to outsourcing subcontractors that were located outside the municipality: 'There was literally a huge movement of trucks in between East London and De Aar carrying construction material that was procured from companies based in East London.'⁹⁸ He went on to say, 'We didn't even have a brickmaking plant in De Aar at that time, which could have provided the IPPs with building material. A brickmaking factory would have also benefited local SMMEs, provided additional work for job seekers and the factory would have paid rates and taxes to our municipal revenue.'⁹⁹ Community members also made similar observations regarding local procurement, 'As the community, we also had expectations that these investments would be used for the development of our SMMEs and skilled labour. But that did not happen the way we had expected it to happen. Instead, construction material came from outside De Aar if not from your white-owned companies.'¹⁰⁰

Firstly, these economic dynamics related to limitations of the small-business-sector capacity in rural municipalities resonate with the understanding that smaller municipalities in the margins of the state often lack industrialised tertiary economies. This leads to a major financial outflow from the periphery back to the metropolitan centres – which flowing inwards could potentially boost the growth of the local economy. Some local SMMEs from eMthanjeni Municipality claimed that services, such as the daily transportation of workers, were procured by the IPP subcontractors from SMMEs in neighbouring provinces like the Eastern Cape. Similarly, local procurement issues raised a serious conflict between the municipality, communities, the local labour forum and the business forum representing local SMMEs, as the latter group felt excluded from participating in local procurement and skills development in the first phase of 2010-15. It was also noted that IPP companies did not initiate prospecting by having direct engagements with municipalities to establish the capacity of local businesses for the provision of goods and services, that would be needed for the construction projects. As one municipal official reiterated, 'Municipalities were treated as passive recipients of these IPP projects, with little influence over the subcontracting and local procurement processes.'¹⁰¹

Secondly, it was noted that some local SMME companies were excluded from participating in the IPP local procurement programme due to the lack of access to procurement information and transparency. As a result, other business owners claimed that local procurement was done mainly using elite networks among the community of SMME owners and local political elites. These concerns were raised by the local business forum with the municipality and IPPs. The IPPs had to now make an effort to establish proper communication channels directly with local business forums, as stakeholders, through the community liaison officer employed by one of the solar companies. The municipal council also took a turning point from the lessons learnt from their lack of meticulous planning and unpreparedness in the

98 Interview with LED manager, eMthanjeni Municipality, 9 November 2020.

99 Ibid.

100 Interview with CFO, eMthanjeni Municipality, 7 November 2020.

101 Interview with corporate services manager, 6 November 2020.

first phase of the project. When another group of IPPs made proposals to council for the second phase of the REIPPP project development expansion (2016-20), the municipality was able to develop and share a database of SMMEs to facilitate local procurement and skills acquisition.

During the second REIPPP project development phase, local SMMEs from eMthanjeni Municipality were able to provide secondary goods and services, while others became third or fourth subcontractors to the main IPP subcontractors. IPPs were able to secede from using external companies and applied local procurement for outsourcing services such as catering, transport, plant hire, local construction contractors, fencing and electrical services. And lastly, the performance of local SMMEs who were able to get subcontracts from the IPPs varied depending on their capacity, experience and financial muscle. Some businesses effectively delivered on the procured services while others were not able to deliver on the contractual agreements due to arising conflicts with other local business partners, the inability to raise capital to purchase assets for the business operations, and a lack of fluid capital for the expenditure. SMMEs participating in the renewable energy space were also confronted with the reality that these business opportunities are temporary and would mostly last only for the duration of construction. This leads to the next issue concerning unequal partnership conflicts under the Supplier Development Programme, which arose between international renewable energy companies and local SMMEs.

3.8 SMME Partnership Gone Wrong: Newtech vs Globeleq

As briefly discussed in chapter 1, the REIPPP projects are required to meet economic development targets and there is an expectation that they contribute to enterprise and skills development for the communities they are accountable to. Although the majority of local SMMEs in eMthanjeni Municipality were limited by their lack of financial capacity to enter into BEE partnerships, a few SMMEs were able to get into procurement partnerships with the IPPs and their subcontractors. Nevertheless, some of the partnerships ended in conflict, with litigations instituted by the local SMME against one particular IPP, Globaleq. The litigation case presented here by NewTech, which is an SMME company that went into partnership with Globaleq, describes the context behind a conflict emerging between SMMEs and REIPPP projects, illustrating some of the emerging dynamics, which remain unresolved.

In terms of an agreement reached by Siemens and NewTech, NewTech would provide certain goods and services to Siemens under the Operations & Maintenance contract. According to Siyabulela Afrika, the director of NewTech, all obligations and terms under the Siemens contract would now be undertaken by Globeleq. This included the arrangement for NewTech to procure bakkies on loan from Siemens which would be repaid by NewTech over a 5-year period. Under the agreement with Globeleq however, the contract period was limited to 12-months with the option to renew, inclusive of the terms of the loan repayment. These terms were agreed to by Willie Van Niekerk, representing Globeleq. Under the subsequent agreement with Globeleq, the parties agreed for NewTech to essentially manage operations at the

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De Aar solar PV project site on behalf of Globeleq. This included doing mechanical cleaning of the PV panels. Under the new agreement, NewTech subcontracted Grant Solar to manage aspects of the project site due to its technological capabilities. The hope was that the payment due to NewTech under the supplier development agreement would go towards expanding NewTech's business capabilities – which NewTech eventually was able to initiate and no longer subcontract to Ground Solar without receiving the amount due under the supplier development agreement. Mr. Afrika noted that when Siemens was introduced during the construction phase of the project, Globeleq's BEE requirements were not yet fulfilled. When asked about whether that requirement is now fulfilled, he said that Thebe Investments is now the BEE partner to Globeleq.

In terms of the work that was done for NewTech by Ground Solar – Ground Solar was already using mechanical panel washing and NewTech wanted to introduce a similar work plan at the De Aar solar farm. NewTech supplied Ground Solar with 17 artisan aids (initially it was 18) to the De Aar solar farm who, among other things, conducted vegetation management manually. According to Mr. Afrika, NewTech intended to use the funds pursuant to the agreement with Globeleq to mechanise this work. Employees who would become redundant would be absorbed into projects that NewTech would be able to secure with Eskom due to its new mechanical capacity. However, according to Siyabulela Afrika, Globeleq began sabotaging NewTech's relationship with its employees after terminating its relationship with NewTech and 'turned the employees against them'. As a result, the majority of these employees were absorbed into Globeleq's workforce and a minority of the employees left NewTech and were compensated with severance packages.

When asked about the status of the court case challenging Globeleq's cancellation of the contract, Siyabulela Afrika responded that both sides had exchanged papers and a court hearing had been set for September 2021 in the Western Cape High Court. Prior to this, NewTech served summons on Globeleq for the non-payment of the enterprise development fee during 2019. NewTech filed a motion of bar against Globeleq, which required that Globeleq respond to the summons, failing which NewTech would request that the court find against Globeleq due to failure to respond. Globeleq then responded by filing a plea and shortly afterwards a request of security for costs to the sum of R350 000. This is considered an unnecessary step in court procedure for entities which are local inhabitants of South Africa and may be viewed as a stalling tactic employed by Globeleq. Furnishing security of costs on top of paying court and legal fees can be financially burdensome. The request, however, was rejected by the court.¹⁰²

NewTech also sought relief through the Southern African Power Pool (SAPP) and reported Globeleq for misconduct. The SAPP was formed in 1995 by Southern Africa Development Community member states (excluding Mauritius) in order to coordinate the planning and operation of electric power production in the region,

102 See IOL News, 19 October 2020, 'Local firm IPP in legal spat over foiled contract', <https://www.iol.co.za/news/south-africa/western-cape/local-firm-ipp-in-legal-spat-over-foiled-contract-34822109> (accessed 4 February 2021).

including renewable power production. Each member state is represented by their respective national power utility and the SAPP is governed by various agreements entered into by all the member parties. Siyabulela Afrika stated that NewTech's complaint against Globeleq never received a response from the SAPP. This may be due to the SAPP only having powers which govern the operation of member utilities' power production and not private power producers or *electricity supply enterprises* as termed by SAPP. Electricity supply enterprises may be given observer status for oversight purposes (if they apply); however, they would not be granted voting rights, nor would they be subject to SAPP requirements and compliance checks. Siyabulela Afrika explained that NewTech is continuing to acquire contracts in De Aar including negotiating and developing a smelter for Vedanta's zinc mines in De Aar. Electricity tariff negotiations had not yet concluded.

Siyabulela Afrika's overall opinion of the relationship between Globeleq and NewTech is that this was a David and Goliath story, wherein Globeleq abused its multinational corporate power and took advantage of NewTech's vulnerability as a local black-owned company. The reason, according to Siyabulela Afrika, for Globeleq's action was that the management of Globeleq were and are only concerned about maximising profit margins and guarding shareholder interests. Thus, Globeleq was not interested in sharing its profits by developing economically profitable relationships for other companies like NewTech.

3.9 Manufacturing Solar Components: The Ideals of Industrialising Rural Economies

Renewable energy equipment is mainly manufactured in industrialised countries such as China, India, Brazil, Germany, UK, Sweden, Canada and the US, making renewable energy companies from these countries the main producers and suppliers of renewable energy industrial equipment, components and technology. While emerging economies such as Brazil, China, India, Indonesia, Mexico and South Africa contributed more than 40 per cent of the global CO₂ in 2019, China and India have also become some of the largest producers of renewable energy. China's production of solar cells and modules dropped prices by a staggering 99 per cent due to the fact that China became the top manufacturer of photovoltaic cells and modules, accounting for 69 per cent of global production. On this basis, China has enjoyed economies of scale in the renewable energy commodities due to high investments channelled into domestic consumption that was followed by export markets. South Africa also intends to participate in the global manufacturing of renewable energy components, to curb the economic capital outflow. Therefore, renewable energy host municipalities have been sold on the idea of internal industrial manufacturing, viewing this as an opportunity to modernise their economic geographies of pastoralism into industrialised green economies.

Rural municipalities are commonly viewed as economic geographies of pastoralism rather than industry. The binary relationship between the city and the rural areas reinforces rural municipalities as the aesthetic repositories of unchanging 'nature and traditional culture rather than dynamic industrial innovation'. This fixes the rural

CHAPTER THREE

municipalities into being natural resource reserves for global commercialisation. Diversification of rural marginal economies often comes with imagined spatial changes that will advance them from agriculture to manufacturing and 'higher-order services, so, making policies aimed solely at supporting agriculture increasingly ineffective and inappropriate for stimulating rural development.'¹⁰³

Hence, the green economy has been one of the ways in which innovative remodelling of the rural municipalities enjoys legitimacy and less resistance from civil society and government. The socioeconomic opportunities specifically concentrate on the promises of enhancing rural development opportunities through diversifying the energy supply; the creation of a domestic industry; and providing sustainable employment opportunities.¹⁰⁴

Secondly, we rely on borehole water for supply. We do not have the infrastructure capacity for industrial development yet, which immediately places us in disadvantage. We need a costed infrastructure development plan that will assist us to get access to capital that is needed to boost our bulk services capacity. And we need the expertise to assist us to unlock these potential economic investments, including building partnership with the IPPs.¹⁰⁵

Whether rural municipalities have the capacity for domestic spatial transformation into industrialised manufacturing economic zones for the renewable energy sector, as purported by the government, remains a pertinent question. While South Africa claims to be a developmental state, the South African political economy within the developmental state praxis is often questioned. Accordingly, a combination of factors has worked against realistically establishing a developmental state; such as the timing of a macroeconomic policy framework that allows capital outflows by conglomerates, instead of encouraging domestic investment. This, combined with a lack of state capacity, failure to subject capital to developmental goals, failure to build energy capacity to meet developmental needs, and the inability to coerce capital in general, provides a bleak future for industrialisation.¹⁰⁶ Patrick Bond asserts that there is general confusion and an absence of strategy on how to pursue a developmental state under an ANC government that is faced by internal battles and continuing struggles against neoliberalism in people's everyday lives.¹⁰⁷

103 Ward, N. and D.L. Brown (2009) 'Placing the Rural in Regional Development'. *Regional Studies*, Vol. 43(10): pp.1237-44.

104 Del Río, P. and M. Burguillo (2008) 'Assessing the impact of renewable energy deployment on local sustainability: Towards a theoretical framework'. *Renewable and Sustainable Energy Reviews*, Vol. 12: pp.1325-44.

105 Interview with the water and waste manager, eMthanjeni Municipality, 12 November 2020.

106 See Fine, B. (2010) 'Can South Africa be a Developmental State?', in O. Edigheji (ed.) *Constructing a Democratic Developmental State in South Africa: Potentials and Challenges*. Cape Town, South Africa: HSRC Press.

107 See Bond, P. (2008) 'South Africa's "Developmental State" Distraction'. *Mediations* 24.1: pp.8-27.





Before joining the eMthanjeni Local Municipality two years ago I was working for another municipality that is hosting the SKA project and some of the renewable energy farms. When you enter those townships and coloured communities, you can literally smell and see the poverty. These IPP projects have been in this province for more than five to six years. Yet you cannot feel their presence in terms of uplifting these communities out of poverty through SEDs.

CFO, eMthanjeni Municipality, 7 November 2020

IPP Socioeconomic Development Contributions and Community Trusts

4.1 Local Ownership

Local ownership in the REIPPP programme is expected to result in a significant financial value associated with dividends. IPPs operating in local municipalities where photovoltaic (PV) solar panels and wind turbine structures are situated, are expected to spend at least a percentage of their revenue on socioeconomic development (SED) initiatives and provide a minimum shareholding to local communities through setting up community trusts. According to the National Treasury, the total dividend flow to local community entities has accumulated to R35.8 billion over 20 years of project lifetime. The local ownership shares in many projects are funded through development finance such as the Industrial Development Corporation (IDC) or the Development Bank of Southern Africa (DBSA). After the 12–24 months of the construction period, IPPs eventually get to connect to Eskom's national electricity grid. The electricity produced is sold to Eskom and the revenue that is generated by the IPPs will first go into the repayment of debts IDC, DBSA and other commercial banks. Depending on the finance structure, local ownership dividends start accruing in most projects from six to fifteen years onwards. Hence there have been lamentations of disillusionment by many communities, stressing that they have not been able to derive any benefits from the dividends of the trust since the IPPs began operations.

This resonates with Khan's findings, which reveal that most potential of the community trusts is unrealised, due to a variety of contextual and institutional factors. He further states that these impede the effectiveness of the trusts, and worse, cripple them for years.¹⁰⁸ Some of these contextual constraints are highlighted in this chapter. In an interview with Solar Capital trustees, they shared the unfolding dynamics between the communities and the community trust as a result of the unavailability of funds to the communities:

We have had a lot of protests that are connected with the trust because they are getting impatient because they have not been able access the money from the trust. They say it's their money and they should be able to access it anytime. They don't understand that there are structures and processes to be followed. They are breathing down our necks because they want answers. I mean, as a stakeholder manager, I get community members coming to me and demanding access to the funding.

¹⁰⁸ Khan, Z. (2021) 'How the rollout of South Africa's renewable energy plan is failing communities'. Econotimes 24 July 2021 <https://theconversation.com/how-the-rollout-of-south-africas-renewable-energy-plan-is-failing-communities-164798> (Accessed 27 July 2021).

*It's as though we are hiding the money in houses under the mattresses. Yet we have tried to explain how the process works.*¹⁰⁹

It is noted that only the IDC funded projects have dividends that are paid out as trickle dividends, which allows the trusts to be set up for the community to receive a steadily growing amount of money, starting in year one or two. The amount becomes accessible to the community through the trust, which also depends on the shareholding percentage allocated to the community. The community coordinator¹¹⁰ explained that,

*We once had this community meeting in July 2020 to inform the community members how much the trust has, which is R16 million, the opening for the call for proposals, the areas of development which will be funded and the documentation and processes that will unfold in order to access the money. We tried to be as transparent as possible, we disclosed that we get dividends twice a year but the call for proposals is only made once a year. But during the meeting, a group of community members busted into the community hall and started demanding the money from us right there at the meeting. The more we tried to explain that we do not have the money ... we are just the trustees ... the more they became agitated and demanded that the trust must be disbanded and a new committee must be elected from the community.*¹¹¹

Another problem that is observed by trustees from the community is related to the absence of other trustees in the community. Since the three independent trustees are situated in Johannesburg and Cape Town, there is a communication barrier between the local communities and the IPPs.

From the first bidding rounds that benefitted the Northern Cape province, the community held anything between 20 and 40 per cent of the shareholding through the trusts. There is no openly available database or similar resource to inform the public about how much money each IPP has committed and what the investment plans are. REIPPP's conservative policy when it comes to publishing information about the programme and its achievements leaves the public (and politicians) in the dark as to how much the implementation of renewable energy plants has contributed to job creation to date. This holds true for the other economic development requirements and for the programme as a whole. These achievements are currently poorly communicated, leaving room for speculation and rumours about this emerging industry.

109 Interview with the Mr Abraham Leroy, Solar Capital trustee, eMthanjeni Municipality, 10 November 2020.

110 Community coordinators recruited and appointed by IPPs are usually from the local community due to the fact that IPPs are constituted of business people and engineers. They do not have the knowledge of running with community development and participation work and they do not permanently live in the local communities.

111 Interview with Ms Anna Beukes, Solar Capital Community Trust coordinators, 10 November 2020.

SED and ED investments to date in the Northern Cape:

Education · R580 000 invested in ECD programmes* Additional teacher salaries covered · School upgrades and construction · Mulilo Bursary programme: 97 students to-date · Globeleq Bursary programme: 54 students to-date · Bursaries support studies in Engineering, Education and Social Development at Universities and FET colleges · Over 600 people employed during construction · Approx. 100 people employed during operations · Procurement from female-led service providers to-date: over R80 million to-date (six wind farms) · Ongoing contracts with local service provider companies · Most service providers 100% women-owned, 60% black-owned · Local Education, Health & Environment projects supported · Women-owned SMME development via ED funding.

Solar Capital trustees interviewed were able to provide useful insights into the way in which their community trust was constituted and how it functions. The Solar Capital Community Trust has five members, two community trustees and three independent trustees. They are appointed by the IPP company. The IPPs will advertise in the local newspaper for community members to serve in the trust. There is a set of criteria that takes into account minimum competency of applicants such as skills, experience and education, which is followed by a vetting process for a criminal record for the shortlisted candidates from the communities. Once community members have been shortlisted, communities are given the option of voting for two community trustee candidates. The shortlisted candidates are given an opportunity through community meetings, to present themselves and convince communities that they should elect them as trustees. This process also involves a lot of lobbying in the community before the actual election.

Once the trustees have been elected, they are able to meet up with the other three independent trustees and hold meetings once a quarter. The trust is guided by the Trust Deed, which provides the trustees with the governance functions, roles and responsibility and conduct. The Trust Deed is certified at the Masters Office in order to institutionalise it as a legal instrument for operation. Once the solar farm begins to generate an income, the trust can only then decide how to distribute the dividends to the communities. These amounts are managed by the trust administrator, who is appointed by the trust. It was suggested that a trust administrator should be appointed from the local community. However, due to stringent criteria set by the IPP, it became impossible for individuals from the local communities to meet the requirements, which then laid a precursor for employing an administrator from Cape Town or Johannesburg.

We argued for the empowerment of local companies or communities. I mean we asked them why can't you take a local company to work under the administrator from Johannesburg, ensure the transfer of skills through training and mentoring

*of the local company in order to ensure skills retention and sustainability rather than looking for skills outside the local community. But again, these are the politics within the trust which we still have to navigate. (Trustee)*¹¹²

This reinforces Khan's point in his research, that the risk of appointing trustees from outside the locality, who have never set foot in the communities they serve, is perceived as illegitimate by the trust's beneficiaries.

Before putting out the Request for Proposal (RFP), the trust opened a bid for companies to establish a community development plan that would map out the socioeconomic profile of the municipal areas where the IPPs are operating. This community development plan included a needs analysis of the communities which would form part of the SED and ED of the IPP. The needs analysis also involved community consultation and some projects have gone as far as appointing preliminary trustees for community trusts. In essence, the community development plan was used by the trust as a guiding document or terms of reference for the development areas they would be focusing on in their call for proposals. This was followed by calls for proposals targeting non-governmental organisations, community-based organisations, civil society and small businesses in the community to apply for funding in seven focus areas: welfare and humanitarian, health, education and development, sport, environment, land and housing and small business development. Abraham Leroy explained,

*We fund business development concepts that have a social entrepreneur spin. For example, food security is a concern in poor communities. Unemployed poor people cannot afford to buy bread every day. A cooperative of young people who are baking and selling bread for poor communities at a cheaper price processed an application, of which it is one of the initiatives that was shortlisted for the business development category.*¹¹³

Developing linkages between the seven different development areas is another issue that was emphasised by the trustees. In terms of the humanitarian funding strategy, he further explained that,

*We also fund soup kitchens as part of the humanitarian and welfare programme. Therefore, we said to a potential beneficiary that one of the conditions of the grant is to procure bread from the bread cooperative and also the vegetable gardens in order to ensure sustainability of these development initiatives and investments. This includes providing them with business and entrepreneurial training and skills on how to run their business, develop business plans, manage their finances and produce statements.*¹¹⁴

¹¹² Interview with Mr Abraham Leroy, Solar Capital Trustee, eMthanjani Municipality, 10 November 2020.

¹¹³ Interview with Mr Abraham Leroy, Solar Capital Trustee, eMthanjani Municipality, 10 November 2020.

¹¹⁴ Ibid.

However, throughout the aforementioned processes, the participation of the municipality did not feature in developing the SED plan, nor did they play a role in identifying critical areas of intervention and development. Although municipalities are afforded the opportunity to apply for financial assistance targeted at the development of deprived communities, the municipality is not considered a priority by the trust. This is because they consider local government to be a state organ that receives money from the equitable share. Their focus and priority is directed at local community initiatives. There was inference to an arrangement that involved the municipality, where the IPPs had attempted to establish a direct relationship with the municipality by allocating money from the trust to the municipality, thus giving the municipality the authority to distribute the funding. However, there were allegations of mismanagement and lack of accountability for trust funding, which led to the IPPs withdrawing this arrangement and isolating them from becoming a beneficiary.

4.2 Poor Alignment of IPP SED Plans with Municipal IDPs

As mentioned in chapter 1, one of the unique features of the IPP programme is its mandatory requirement to contribute to the socioeconomic development of the host municipality and its communities. The IPP developers ought to identify local communities within a 50km radius around the project site, which will benefit from the renewable energy project. It is the IPP developer's responsibility to decide what constitutes the benefitting community; this could be a specific village or neighbourhood, or even the entire (eligible) population within this radius. It is noted that identifying beneficiary communities is problematic for two reasons. Social and political dynamics can be negatively impacted by selectively identifying some people as beneficiaries over others. Also, the 50km radius competes with other administrative boundaries. Such a radius can stretch over one or more municipal areas. The accumulation of projects in certain parts of the country is another concern. Emthanjeni Local Municipality has eight IPPs operating within the proximity of the town. As a result, IPPs tend to develop similar SED plans with development areas of focus that are overlapping. It is likely that more than one IPP has chosen the same town as beneficiary for SED, ED and local ownership funding. Therefore, IPPs pay little attention to how their individual funding allocation aligns with the contribution of neighbouring renewable energy projects or other private sector social investment initiatives in the area.

Municipal officials and councillors have raised concerns about the minimal interaction and engagement the municipality had with the IPP companies in the development processes of the IDP and LED processes, which are regarded as crucial in aligning the IPPs SED plans. In some instances, where SED plans were developed with little involvement and consultation with the municipality, these plans tend to overlook or ignore the Integrated Development Plan (IDP) and Local Economic Development (LED) plans of the municipality. These plans have the potential of enforcing alignment and avoiding repetition of development projects. Local government has a constitutional obligation to provide basic services and at the

same time, to develop the local economy. The DMRE, however, fails to demand that IPPs consult or collaborate with local governments on this matter. This has caused local political authorities to question the interest of IPPs in the development of their communities.

The mayor asserted that

*The Northern Cape province is considered to be the hub of renewable energy. But when you try and locate these IPPs, they are not here in the Northern Cape even though their plants are operating here. I literally had to drive to Cape Town to meet Globaleq representatives at their headquarters in order to get their participation and commitment into our LED Strategy and Spatial Development Framework.*¹¹⁵

As previously stated, IPP company offices are located in the urban centres of Johannesburg and Cape Town. This physical dislocation seems to have reinforced an already existing disconnection between the IPP companies and the municipality, particularly when it comes to planning for the development of communities. In other words, the physical presence of towering wind turbines and sprawling solar parks is equally felt in conjunction with the IPP company's absence and passive role in the infrastructural development of the municipality. As the mayor reiterated during our interview, 'The IPPs refuse to participate in IDP meetings and want to distance themselves from making any development commitments towards our infrastructure development that benefits the communities.'¹¹⁶ Like Local Development Forums (LDFs) which are established in other municipalities throughout the country, these structures are predominantly constituted by the private sector and operate independently from the municipality. LDFs mainly coordinate and implement major infrastructural developments – eMthanjeni Municipality does not have an LDF structure which can play a facilitative role in the development of the municipality.

Municipal officials are also of the view that the IPP companies are not adequately playing a proactive developmental role as a stakeholder in the locality. Through interaction with other municipal officials operating in mining towns in the Northern Cape, mining companies in Kathu play an active participatory role in the IDP processes. Another councillor also shared his unmet expectations with regards to the way in which IPPs have handled the SED compared to the mines in other municipalities.

We were of the perception that these IPPs would operate like the mines in Kathu. Even though the development trust in Kathu has its own internal problems, the mines operating in Kathu are able to build clinics, roads and schools, working together with other provincial sector departments and the municipality. There

¹¹⁵ Interview with the mayor, eMthanjeni Municipality, 11 November 2020.

¹¹⁶ Ibid.

is an effort to coordinate the infrastructure developments in accordance to the municipality's development needs and plans which are then aligned to provincial sector departments.¹¹⁷

The IPPs are not only perceived by municipal officials and councillors to be independent from Eskom, but municipal officials have also framed their position as being independent from the local state [municipality]. They have waged strong criticism against the way in which the IPPs have insulated themselves from the municipality's development structures and processes. The chief financial officer also described this insulation as a dislocation from the locals as their inability to connect with the host communities and the local authority.

Yes ... they are independent commercial entities and we respect that. We don't want to meddle and interfere in the running of their trusts. But their refusal to participate in any of our IDP stakeholder engagements seems to be used as a way of re-asserting their independence from the municipality as well. But they forget that their independence is relative to society because it is the very same municipal jurisdiction that has supported them with the wind and sun resources in order to supply power and make profit. On top of that, they come to these small towns and utilise our municipal infrastructure too. It's not justifiable for them not to take into consideration their contributions into infrastructure development.¹¹⁸

During an interview with the mayor, he made an emphasis on many attempts made by the municipality to develop a connection and cohesive relationship with the IPP companies operating in the municipality. However, those attempts have proven to have not materialised adequately. He demonstrated how their physical absence also illuminated their lack of interest and participation in the local development of the municipality. The LED manager attested to this frustration,

We want to see them as part and parcel of the developmental processes of the municipality. We tried many times to get them to come to the IDP and tell us about their development programmes so they can see where we can meet each other halfway. So what we are saying is that they need to make their presence felt in the community. If communities need high mast light and our municipal budget is running on a deficit, there is nothing stopping them from taking the IDP and committing to fund or procure solar high mast lights in the township or informal settlement. They don't even need to give us the money but they can procure that activity from their own company.¹¹⁹

¹¹⁷ Interview with Cllr Sipho Mjajubana, eMthanjeni Municipality, 11 November 2020.

¹¹⁸ Interview with the CFO, eMthanjeni Municipality, 7 November 2020.

¹¹⁹ Interview with the LED manager, eMthanjeni Municipality, 9 November 2020.

The eMthanjeni Municipality IDP and LED Strategy did not make mention of any development priority commitments made by any of the IPPs in their jurisdiction.

The community trust members of Solar Capital have alluded to the current funding targeting socioeconomic programmes in education, social and health, welfare and enterprise development. However, municipal officials and councillors seem to have grown tired of social programmes that do not provide any tangible economic development and sustainable growth of communities, particularly in the SMME sector.

Although the bursary scheme has been commended for providing for children from economically deprived backgrounds, they are nevertheless of the view that it creates a cycle of welfare dependency irrespective of its contribution towards poverty alleviation. One of the councillors expressed his annoyance at incoherent SED plans that fail to address the developmental needs of the communities of eMthanjeni Municipality:

We feel that IPPs' social contributions need to move beyond education, social and health care. There are crèches everywhere ... NGOs everywhere but there are no business development support centres or financial institutions which can assist emerging SMMEs with access to capital funding.¹²⁰

Some of the reasons stated for the over-investment in early child development programmes point to the poor planning and coordination of social investment programmes in the national IPP offices with the local municipalities. Hence their social programmes are unable to effectively respond to the actual developmental needs of the community and the municipality.

120 Interview with Cllr Siphon Mjajubana, eMthanjeni Municipality, 11 November 2020.





Conclusion: Marginality and the Predisposition of Disempowerment

This research paper has made an attempt to examine the relationship between poor and under-resourced local government municipalities and the REIPPP programme, and how the latter has impacted on the development of the municipality after the project development. This paper has been able to demonstrate a continuum of the economic planning process in South Africa, which is highly centralised in its policy approach, starting from the inception of IRP agenda setting, formulation, adoption to the planning, consolidation of capital investments and implementation stages. Through the collection of testimonies from municipal officials, political representatives, local communities and local business community of eMthanjeni Municipality, this research paper conclusively argues that the way in which the policy design approach of the REIPPP programme has been centralised further reinforces the reproduction of structural displacement of rural municipalities into the margins of policymaking. One of the key factors which enables the continuous practices of the top-down approach into the economic policy and planning also relates to the poor intergovernmental relations interface between national, provincial and local government structures. This interface has the potential of enabling Salga and Cogta to represent rural municipalities' developmental challenges and negotiation limitations with the private sector (IPPs), and identify the resources required to address the adverse outcomes of the REIPPP programme.

Therefore, local government is either marginalised or excluded from participating in critical decision-making on the establishment and operation of IPPs, effectively alienating municipalities from any position of power to make meaningful decisions regarding their own socioeconomic destiny – that is, they do not have the power to meaningfully influence IPPs. Local government does not have extensive material influence on the redistribution of power generated through their IPPs in their favour – that is, they do not have managed access to the renewable energy power produced. Lastly, communities, who ought to be the beneficiaries of SED, ED and community trust funding, are unable to immediately access these funds; which are meant empower communities through development initiatives due to the IPP repayment loans which can take up to six years.

Therefore, this research paper has demonstrated how economic path-dependency has excluded rural municipalities from influencing the planning and implementation process of the REIPPP programme during the preparation stages, and leading up to its afterlife. The lack of economic sustainability of the REIPPP programme tends to undermine the much-needed socioeconomic transformation of local communities and access to affordable renewable energy. As Phadi and Pearson have argued in the case of Lephalale Municipality's struggle with self-sufficiency since the arrival of the Medupi power station, municipalities tend to have an 'erratic response', which 'stems from its weak position with respect to the corporate world and higher

levels of government with which it must continually negotiate to achieve its basic mandate of service delivery, let alone fulfil its desire to become a city. Ultimately, the municipality emerges as the underdog in these relationships, which undermines its long-term quest for self-sufficiency and leaves it at a loss for the bargaining power to disrupt historical patterns of land ownership and distribution networks for water and electricity.' Responding to this observation, their research paper further asserts that because of the geographical distance and isolated locations, municipalities in the margins are often considered economically insignificant and the populations residing there tend to lack efficiency and policy influence. This resonates with the institutional capacity constraints in local policy and planning that has led to poor bureaucratic and political efficiency in planning for the REIPPPP development.

The common vantage point of these analyses suggest that state power and authority are in and emanate from the centre, where national government and executive decisions are taken by elites. By using local government in the margins as a bottom-up approach of examining the impact of national government in the REIPPPP programme, we are able to consider observable ways in which the geographical and state institutional marginality of local government contributes to making the South African economy through neo-colonial development continuities of extracting resources from the periphery to the centre, with little reinvestment into the margins. The marginality of municipalities provokes the structural and physical geographical imagination and then, when acted upon by agents of the state and subject citizens alike, these imaginings become an important element in the governing process of policy decision-making.

The irrelevance of local government in the margins to the process of policy decision-making and planning also means that the state tends to neglect or deploy few resources in these regions in order to reinvest in development in these under-resourced municipalities, which contributes to the economy of the state. This has, geographically and structurally, trapped rural local municipalities and their local communities in a permanent cycle of poverty, unemployment and inequality. The lack of state-deliberate engagement with the margins in the REIPPPP programme reveals discrepancies between the rhetoric of local government developmental statism and the everyday reality of local government in the margins.

This study of the REIPPPP programme as implemented in local government in the margins, reveals the limitations and discrimination of state-centric power in policy decision-making and resource redistribution that render the South African state susceptible to apartheid-era spatial and economic continuities: extracting natural resources for the production of renewable energy to serve the metropolises rather than local municipalities and their communities.

ANNEXURE

| TABLE 1: YEAR-ON-YEAR SOLAR AND WIND ALLOCATIONS BASED ON IRP 2019 | | | |
|--|------------|---------------|--------------|
| | CSP (MW) | SOLAR PV (MW) | WIND (MW) |
| Base in 2020 | 600 | 1588 | 2524 |
| 2021 | - | 300 | 818 |
| 2022 | - | 1400 | 1600 |
| 2023 | - | 1000 | 1600 |
| 2024 | - | | 1600 |
| 2025 | - | 1000 | 1600 |
| 2026 | - | | 1600 |
| 2027 | - | | 1600 |
| 2028 | - | 1000 | 1600 |
| 2029 | - | 1000 | 1600 |
| 2030 | - | 1000 | 1600 |
| Total Installed | 600 | 8288 | 17742 |

Note: This list excludes the recent announcement of the RMIPPP (Risk Mitigation Independent Power Producers Programme) which operates similarly to REIPPP but provides exceptions on local content requirements and includes gas turbine technologies.

Globeleq South Africa

Globeleq South Africa Management Services (Pty) Ltd (GSAMS) is a wholly-owned subsidiary of Globeleq Generation Ltd (Globeleq) – a UK-based power generation company. Globeleq is 70 per cent owned by the CDC Group PLC, a UK-state-owned development finance institution, and 30 per cent owned by the Norwegian Investment Fund (Norfund) – another state-owned investment company.

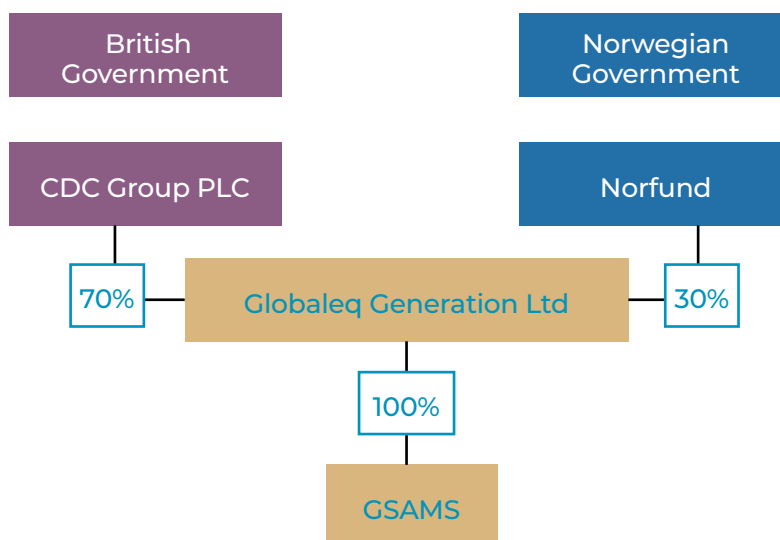


Figure 1: Globeleq South Africa Company Organogram

CDC Group PLC intends to invest approximately 2 billion pounds into renewable energy projects in Africa in order to double its assets on the continent. The intention seems to be for the CDC to become the leading provider of renewable energy in Africa. Other CDC projects include investment in African electricity generation through its subsidiary, Gridworks Partners LLP, which has joined the US-government-led Power Africa initiative as an investment partner.

The vehicle through which Globeleq runs its project in De Aar is South Africa Mainstream Renewable Power De Aar PV RF (Pty) Ltd, with Thebe Investment Corporation as the Black Economic Empowerment (BEE) partner. The consortium partners work together to fund and manage Globeleq's South African projects, one of which is Mainstream Renewable Power. Globeleq, which was founded in 2008, has two more RE projects in Droogfontein, Northern Cape and in Jeffrey's Bay, Eastern Cape.

Each special purpose vehicle (SPV) in Globeleq's three projects (De Aar, Droogfontein and Jeffrey's Bay) is majority owned by Globeleq, with Thebe as the BEE partner. Thebe has been affiliated with politicians since it was founded in 1992 by the Batho Batho Trust, whose trustees have included former President Nelson Mandela, Walter Sisulu and Beyers Naude. The first chairman of Thebe was former chief minister and chief executive councillor of the KaNgwane bantustan, Dr Enos Mabuza.

Initially, Thebe's core business was investing in insurance companies; it has since expanded to include renewable energy services. It seems Thebe's primary function in the RE sector is that of BEE partner; of the eight projects commissioned by the consortium, five list Thebe as the primary BEE partner (see figure 4).

The remaining three projects list African Rainbow Energy and Power (AREP) as their BEE partner (see figure 6). AREP was founded by Patrice Motsepe and is part of the African Rainbow Group. As of February 2021, AREP increased its stake in another RE project spearheaded by the Sola Group. The current CEO of AREP is Brian Dames. AREP has been accused of receiving preferential treatment in the REIPPP bidding process; President Cyril Ramaphosa and former Minister of Energy, Jeff Radebe, are both brothers-in-law of Patrice Motsepe.

Mainstream Renewable Power Consortium of Partners:

- Globeleq South Africa Management Services (GSAMS)
- Thebe Investment Corporation (Thebe) (BEE partner)
- Lekela Power Holdings (subsidiary of Mainstream)
- African Rainbow Energy and Power (BEE partner)



Figure 2. Mainstream Renewable Power Consortium of Partners RE projects: shareholding

Mulilo

Mulilo is a South African, privately owned renewables company. In August 2020 it offloaded a 10 per cent share in the company to Stanlib. Mulilo’s partners for its Northern Cape projects include Longyuan South Africa Renewables (Pty) Ltd; Sonnedix Solar South Africa Holdings (Pty) Ltd.; and X-Elio Energy. Other minority shareholders are Calulo Renewable Energy (BEE partner) and Swish Energy.

Calulo Renewable Energy is a subsidiary of Calulo Investments, which is majority owned by Faku Family Enterprises. The Executive Chairman of Calulo Investments is businessman Mkhuseleli Faku, who has been operating in the financial and energy sectors for a considerable amount of time. In 2014, it was reported that Faku and his cousin, the former mayor of Nelson Mandela Bay were financially implicated in acquiring a 40-year lease over land granted by the former mayor, in partnership with controversial mining magnate Kobus Smit.¹²¹ More information is needed from the Companies and Intellectual Property Commission to determine the equity held by Calulo as a BEE partner in Mulilo.

121 'Tycoons Secret Paradise', 24 January 2014, *HeraldLive*, <https://www.heraldive.co.za/news/2014-01-25-tycoons-secret-paradise/> (accessed 17 April 2021).

Project equity is as follows:

| TABLE 2: MULILO RENEWABLE ENERGY SOLAR PV DE AAR (PTY) LTD EQUITY SHARES | | | | |
|--|--|----------------|--|-----|
| Mulilo Solar PV (De Aar) | Mulilo Renewable Energy Solar PV De Aar (RF) (Pty) Ltd | 2009/010389/07 | X-Elio Energy, S.L. (formerly, Gestamp Asetym Solar, S.L.) (Spain) | 60% |
| | | | Mulilo Group Holdings (Pty) Ltd | 20% |
| | | | Mulilo De Aar Solar Community Trust (RF) (Pty) Ltd (South Africa) | 20% |

Solar Capital

Solar Capital was founded in 2008 as a subsidiary of Phelan Energy Group Ltd., a solar power energy investment company operating in Cape Town, New Delhi, Afghanistan, Dublin and Germany. Phelan Energy Group Ltd. was founded in 2004, by Irish entrepreneur, Paschal Phelan, and is 100 per cent owned by the Phelan family. In Ireland, 'Ltd.' is the equivalent of (Pty) Ltd. in South Africa and is thus a private company. Currently, the company has two projects under construction in De Aar and Loeriesfontein, Northern Cape.

Costruzioni Moncada Italia (Moncada Energy Group)

Italian company Costruzioni Moncada Italia signed a joint venture with Solar Capital in 2011 to form the Solar Capital De Aar (Pty) Ltd SPV. According to Moncada, Solar Capital is its subsidiary and entered into a power producer agreement with the Department of Energy.

Another partner in the joint venture is the Public Investment Corporation SOC Ltd., which represents the government employees' pension fund, with a 25 per cent stake in the venture. The BEE partner for the Solar Capital of 2018, Moncada was not a majority shareholder in either of Solar Capital's De Aar or De Aar 3 solar projects and held 35 per cent and 20 per cent shareholding in each company respectively.



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