



**PRESIDENTIAL  
CLIMATE COMMISSION**  
TOWARDS A JUST TRANSITION

# A Presidential Climate Commission Dialogue Report

## **SOCIAL OWNERSHIP MODELS IN THE ENERGY TRANSITION REPORT**

November 2023 - March 2024



## 1. INTRODUCTION

The Presidential Climate Commission hosted several stakeholder consultations on the *Social Ownership Models in the Energy Transition* starting with a webinar on the 7<sup>th</sup> of November 2023. The emergence of renewable energy signifies a shift towards more decentralized energy provision which ultimately brings much-needed reform into the energy sector in South Africa. The Just Transition Framework calls for affordable, decentralised, diversely owned renewable energy systems and broadening of ownership of productive assets in support of the just transition. Recognizing this transition, the Presidential Climate Commission (PCC) had explored social ownership models for renewable energy in South Africa to address the energy needs in a pro-poor dimension. To address this imperative, researchers from Nelson Mandela University were engaged to explore and investigate this pivotal question.

The University of Nelson Mandela undertook a comprehensive evaluation of models of socially owned renewable energy. This involved identifying barriers, challenges, and community-specific solutions. The scope also included developing models for social ownership, conducting financial case studies, addressing institutional barriers, proposing methods and structure for pilot project selection, and establishing criteria. The research encompassed a global and national perspective, drawing insights from existing examples and relevant literature.

The research approached the study by considering three key perspectives. Firstly, they explored the potential of renewable energy technology, particularly PV solar, for fostering social ownership and creating productive assets within communities (especially those in low income localities). The focus was bridging the gap between centralized public state ownership and

privatization. Secondly, the team assessed the current global and local implementation status of these models, revealing limited but relevant examples. Lastly, four context-specific models underwent comprehensive testing against various criteria, ensuring technical feasibility, social ownership, and overall benefits are met to address energy generation, energy poverty and economic diversification.

Prof Janet Cherry presented four distinct models for socially owned renewable energy projects:

1. Mini Grid Model: Owned or co-owned and managed by residents in rural or informal settlements lacking a grid. The primary benefit is providing (free) basic electricity to households. The model demonstrated, for a rural setting with 1000 households, benefits that include additional income, local economic benefits by facilitating energy use for businesses and promoting economic inclusion.
2. Township/Tenant CO-OP Model: Involves owned PV solar rooftop generation, either at the household level (SSEG) or as an array on public land, IPP, or community buildings (SSEG). This model targets townships with existing infrastructure and grid connections. It has the potential to contribute to municipal electricity supply. Local benefits include job creation and implications for the broader manufacturing of renewable energy components. Environmental benefits align with the country's commitment to reducing CO2 emissions.
3. Community Land IPP Model: Based on the existing REIPPPP, this model explores private partnerships benefitting communities with access

to communal land. It involves selling the generated electricity to private (industrial or mining) offtakers, with a minimum share ownership of 10% and/or rental income.

4. Worker-Owned IPP/EG Model: Focuses on workers, specifically members of trade unions or factory workers, as owners of renewable energy installations. The model considers embedded generation on factory/mine/repurposed power station or institutional rooftops. It plays a crucial role in job preservation, particularly in the motor industry.

federations participated. During this dialogue, they shared their input and opinions.

2. Survey Questionnaire: Trade unions and federations were presented with a survey questionnaire to gather their input systematically.
3. Discussions and Interviews: Detailed discussions and interviews were conducted with various stakeholders, including individual federations, to delve into the specifics of each social ownership model.

## Models of Social Ownership: Framework

**MODEL 1: MINI GRID**  
 Owned/co-owned/managed by residents  
 Model used for energy access  
 Rural areas or informal settlements with no grid  
 Provides (free) basic electric to households

**MODEL 2: GRID-TIED**  
 Co-operatively owned generation system  
 Rooftop (household-SSEG) and/or array on Public Land (IPP) or community building (SSEG)  
 Grid-tied, urban infrastructure  
 Feed-in / wheeling through municipal grid  
 Smart metering can integrate household with array or community building  
 Can integrate households or be owned by households  
 "massive roll-out of rooftop solar"

**MODEL 3: COMMUNITY LAND IPP**  
 Large scale generation by private developer on community-owned land, selling to Eskom as part of REIPPP  
 Selling to private(industrial or mining) off takers, and/or  
 Share ownership of minimum 10%, , and/or  
 Rental income

**MODEL 4: WORKER OWNED IPP/EG**  
 Share or direct ownership of EG (embedded generation) by workers  
 Factory/mine/repurposed power station  
 Institutional rooftops

In the discussion, the engagement with trade unions involved three key processes:

1. Dialogue Organized by Climate Justice Coalition: A forum where numerous trade unions and

The following questions were raised during the discussion:

**Q1: Oversight and Practicality:** Has there been any oversight to assess the practicality of the proposed models and ensure actual

benefits for people in host communities? Reference was made to the REIPPPP implemented in 2011.

**Q2: Examples and Benefit to the Poor:** Are there examples demonstrating the practical implementation of these models, specifically highlighting benefits for impoverished communities?

**Q3: Risks and Responsibilities with Municipalities:** Regarding the proposed models, are there instances where the risks and responsibilities are more aligned with municipalities?

**Q4: Proof of Concept:** Is there proof of concept, and are there local and global examples where these socially owned renewable energy models have been successful? Additionally, how can the opportunities be maximized?

**Q5: Commercial vs. Beneficial Ownership:** Exploring the distinction between commercial ownership and beneficial ownership, emphasizing the importance of understanding the impact and advantages of each ownership type in the context of renewable energy projects.

## 2. PANELLIST INPUT: SHARING LESSONS ON GLOBAL AND LOCAL EXAMPLES OF THE SORE

**Ameena Camps** shared insights into community development projects in Scotland that support deprived communities. One notable example is the Eist Wind project on North Eist, a West Scotland island, recognized as one of the most deprived areas. Over a decade, the community successfully developed a 1.8-megawatt wind turbine project, wholly owned by the community. They navigated challenges,

secured planning permission, established a management company, acquired funding, appointed project managers, and implemented contracts for wind turbine maintenance. The project received a feed-in tariff subsidy, derisking community initiatives and aiding financial development.

Despite a funding gap arising from the extended project timeline, the Scottish government, through an investment bank's renewable scheme, filled the void. The project transformed into a community benefit society, offering a community share offer. Currently, 220 community investors receive annual returns, with repayments starting in the seventh operational year. Importantly, as a wholly owned community project, all profits contribute to a community benefit fund, fostering local development. A study revealed that such community energy projects exceeded industry standards, bringing in 34 times the recommended community benefits.

**Ms. Gwarupe** presented a local example from the Eastern Cape, highlighting a successful project collaboration between the state of Lower Saxony, Germany, and the local government. The initiative aimed to combat energy poverty in remote areas, specifically focusing on Upper Clean Water. The project prioritized community engagement, involving essential roles from the municipality and ward councillor. The community actively participated in decision-making processes, including endorsing design documentation.

The project integrated solar, battery, and later wind components to ensure 24-hour power generation, reducing dependence on diesel. Despite facing some delays, transparent communication with the community was sustained. The transformative impact of the project is evident in improved access to electricity, enhanced living conditions, and a boost to local businesses, particularly in agriculture. This initiative serves as a pilot model, influencing broader

endeavours to bring electricity to remote areas where traditional utilities face challenges in accessibility.

The IDC offers three funding models: project funding, commercial financing, and a grant program designed for socially impactful initiatives, particularly those in renewable energy and social enterprises. **Dr Stuart Bartlett** from the IDC underscores the importance of social solidarity economy funding, prioritizing businesses with a social or environmental mission. The special intervention fund, an extension of the social enterprise fund, seeks to build ecosystems, foster partnerships, and validate concepts.

The core principles involve businesses generating income, with surpluses reinvested into the community. This funding supports social innovation, acts as a catalyst for development, and addresses market failures, serving as a pioneer to attract additional funding. Key areas of focus include social and environmental impact, community empowerment, diversification, reinvestment in communities, social and local innovation, and addressing spatial disparities. The IDC's passion lies in its ability to fund innovative and early adopter social businesses that advocate for justice and maintain strong community ties. The funding aims to make a tangible impact in the community energy space and foster the promotion of social ownership.

Various speakers engaged in discussions covering the South African Renewable Energy Master Plan and the Department of Trade, Industry, and Competition's initiatives to localize manufacturing. The debate delved into defining social ownership, particularly in the context of state ownership and community participation in renewable energy projects. Professor Cherry highlighted

the diverse funding models, encompassing project funding, commercial financing, and a grant program tailored for social enterprises, with an emphasis on social solidarity economy funding supporting businesses with social and environmental missions.

The discussion explored the significance of partnerships, ecosystems, and validating concepts in the social enterprise space. Economic benefits, job creation, and the challenges of local solar panel manufacturing were subjects of consideration. Questions arose regarding the transparency and fairness of redirecting municipal funds to renewable energy projects, underscoring the need for clear policies and guidelines. Additionally, the conversation delved into the viability of subsidies and remuneration for community-owned renewable energy projects, considering the source of subsidies and potential impacts on other consumers. The financing slide was presented, addressing funding sources and expressing concerns about government loans and international financial institutions. In summary, the webinar provided valuable insights and comprehensive discussions on various aspects of renewable energy projects and social ownership in South Africa.

### 3. STAKEHOLDER CONSULTATIONS - MPUMALANGA

Conscience that Mpumalanga is ground zero in the energy transition and its immediate impact on coal workers, additional consultations were held with various stakeholder groups between the period of 15 and 30 January 2024 in Mpumalanga. The consultations with local communities, government, funders, research institutions,

organised labour and the private sector are depicted in Table 1 below.

Date	Stakeholder Group	Location
15 January 2024	Local Communities and Civic Society (Climate Talks Multistakeholder Community Dialogue)	Ermelo
22 January 2024	Government Consultation	Mbombela
29 January 2024	Local Communities and Civic Society (Climate Talks Multistakeholder Community Dialogue)	Middelburg
29 January 2024	Funders and Research Institutions	Virtually (Zoom)
30 January 2024	Organised labour organisations	Emalahleni (09h00-12h00)
30 January 2024	Private Sector	Emalahleni (13h00-16h00)

Figure 1: Summary of Stakeholder Consultations

As consultations were with targeted stakeholder groups, the discussions were focussed and sector specific. At each consultation the Social Ownership for Renewable Energy Report was presented. Participants at each consultation were afforded the opportunity to share insights or comments on the report. Below is a summary of the key inputs received from the consultations:

1. The financial sustainability of municipalities, who rely on revenue generated from the supply of electricity, was raised as a concern and it was proposed an analysis of the impact of the proposed models on the

financial sustainability of municipalities be undertaken.

2. Numerous stakeholders noted that social ownership of renewable energy is critical for South Africa's energy transition to be just and locally owned. However, it critical that PCC go beyond research, and pilot these models to test proof of concept.
3. A key question raised was whether communities and workers are expected to raise capital to implement the various models presented. Furthermore, it was noted that profits or dividends from many of SORE models accrue or only pay out dividends many years after inception. With this being the case, the was interest in other activities to supports people's livelihoods until dividends are paid out. It was proposed that blended finance be examined for the implementation of the SORE models, seeing that communities have limited access to capital.
4. The need for skills development programmes to capacitate youth and community members be implemented to enable community conceptualisation and implementation of the SORE models.
5. Integrated stakeholder consultation was proposed instead of individual consultations with stakeholder groups.

In response, it was stated that the PCC is currently in the process of engaging funders for the implementation of the SORE models. These models will not necessarily be implemented by the PCC, but rather the role of the PCC is to catalyse partners towards implementation as the social ownership of renewable energy is an integral component of the just transition. It is important for all stakeholders to work collaboratively within the just transition to realise social ownership of renewable energy projects.

The PCC also added that the SORE report will feed into the implementation of the Partnerships Implementation Model, which aims to diversify local economies in Nkangala and Gert Sibande District Municipalities through ensuring that stakeholder efforts, in the coal belt (government, labour, business and the community), are coordinated and integrated through a partnership approach. Through the PIM stakeholders can collaborate and partner toward a sustained development growth trajectory to develop a pipeline of bankable and livelihood projects

#### **4. LAUNCH OF THE SOCIAL OWNERSHIP MODELS IN THE ENERGY TRANSITION 2023 REPORT**

On the 8<sup>th</sup> of March 2024 the Presidential Climate Commission hosted the report launch Social Ownership Models in the Energy Transition. The launch invited the research team to present the final input that encompassed the stakeholder inputs from the webinar hosted in November 2023. The launch was to showcase the 4 models, the stakeholder engagement process that informed the models and recommendations to create an enabling environment and discuss what further work needs to be done. This emphasis emerged as a response to concerns raised by stakeholders, particularly from labour and civil society constituencies, regarding the predominant role of private ownership in energy generation. In an effort to address these concerns, the Presidential Climate Commission (PCC) subcommittee proposed comprehensive electricity recommendations in May, advocating for a balanced mix of public, private, and social ownership models in the energy sector.

Nelson Mandela University significantly contributed to this discourse by presenting a detailed paper on social ownership. Drawing

on insights from diverse stakeholders and practical experiences spanning the Global South and North, the paper sheds light on the historical use of social funds in South Africa, specifically through cooperatives and stokvels in indigent communities. These initiatives have played a pivotal role in city development, education, and enhancing productive capabilities.

The proposed solution involves promoting forms of social ownership, aiming to shift the mindset of workers and communities from mere labor suppliers to active owners of the economy. This transformation, coupled with ownership of productive tools, is deemed essential for comprehending market forces and enhancing collective well-being.

#### **5. RESPONSES FROM KEY STAKEHOLDERS ON THE SORE REPORT**

##### **5.1. Dr Silas Mulaudzi - SALGA**

Dr Silas Mulaudzi from SALGA addresses concerns about potential revenue loss due to new energy projects but notes that this will be further clarified. SALGA, having made a resolution in 2018, supports the view that the current electricity distribution model is no longer viable and advocates for regulatory changes and new decentralized models, aligning with Sustainable Development Goal Number 7.

Dr Mulaudzi underscores the importance of addressing remaining unelectrified areas, especially those with geographic challenges. He expresses support for customer-owned generation, endorsing embedded practices in municipalities, while specifically recommending Models 2 and 4.

Learning from past experiences, Dr Mulaudzi emphasizes the need for improved mini-grid projects and stresses the importance of bankable projects with comprehensive preparation facilities. Affirming the technical viability of solar technology, he expresses openness to the proposed models' towards enhancing transition and decentralization.

In conclusion, Dr Mulaudzi highlights positive developments in the Western Cape's implementation of embedded generation with cashback incentives, presenting it as a potential model for other municipalities.

## **5.2. Mona Naicker - Business Unity SA**

Mona from Business Unity South Africa reflects on the social ownership models presented in the Energy Transition Report and outlines ways in which businesses can support these initiatives, particularly focusing on the worker-owned model. She applauds the report for aligning with just transition frameworks, emphasizing affordable, decentralized, and diversely owned renewable energy systems.

Mona emphasizes the need to broaden the ownership of productive means to support the just transition, recognizing that the transition goes beyond assets and involves a fundamental shift in economic activities, creating new sectors and job opportunities. She stresses the importance of reimagining financial instruments and facilities to effectively support the Social Ownership of Assets and Resources (SOAR) approach.

The report explores various social ownership models for renewable energy, aiming to ensure communities and workers have a real say in the transition and become primary beneficiaries. Key findings include four potential models for social ownership, and Mona highlights the role of businesses in

supporting these initiatives through investment and collaboration.

Mona discusses the importance of maintaining economic fundamentals, ensuring a return on investment and sustainable net positive gains for communities. She suggests that businesses can partner with local communities and cooperatives to foster shared benefits, advocate for policies promoting social ownership, and support capacity building programs for community members to actively participate in energy programs.

While acknowledging the worker-owned model's potential, Mona notes the necessity of clarity in project objectives and structures, considering factors such as new ventures versus acquisitions of established businesses, sustainable operational plans, profitability pathways, and transparent governance frameworks. She underlines that businesses are increasingly interested in exploring alternative models, recognizing the varying priorities and concerns.

The worker-owned model, involving employees holding a significant ownership stake, is gaining traction due to its alignment with environmental, social, and governance (ESG) standards. Mona highlights the advantages of worker ownership, such as increased productivity, better employee engagement, and a strong commitment to environmental justice.

Mona concludes by noting that businesses perceive social ownership models as pathways to a more equitable, resilient, and sustainable energy landscape. She emphasizes the positive change driven by supporting these initiatives while ensuring long-term success for businesses.

## **5.3. Lebogang Litha – NEDLAC**



Lebogang Litha from NEDLAC Community Constituency expressed gratitude and welcomed the report, especially addressing the community's concern about load shedding. They supported citizen involvement in development and saw all proposed models as mini grids, with the grid connection depending on the specific community. Emphasizing the need for a united effort, Litha highlighted the importance of a community of practice to learn from pilot projects and address issues like the lack of benefits from community share ownership.

Litha appreciated the bottom-up approach in renewable energy rollout and underscored its impact on fundamental issues like load sharing, affecting education and livelihoods. They acknowledged challenges, such as crime hindering information access. Concerning funding, they suggested utilizing CSI and the socioeconomic development budget. Stressing the importance of capacity building, Litha emphasized that communities should be active participants, well-informed in negotiations. They advocated for more pilots, acknowledging failures as part of the learning process and recognizing the urgency of addressing community needs.

#### **5.4. Thierry Alban Revert - National Co-operatives Association of South Africa (NCASA)**

Thierry Alban Revert from NCASA highlighted the exceptional quality of the report, emphasizing its innovative approach in addressing emerging issues.

Key points covered included the importance of changing the mindset from collaboration to cooperation, the introduction of the SAID-ST initiative focusing on sovereignty, and the need to shift from voluntary Corporate Social Investment (CSI) to mandatory retribution and

compensation systems. The speaker addressed challenges like iziniyoka (electricity theft) and emphasized the significance of renewable energy beyond electricity, particularly highlighting biogas and the cooperative manufacturing of solar panels.

The discussion delved into the importance of owning the means of production for sovereignty, with a focus on free energy transformation, waste-to-energy solutions, and a call for cooperatives to take charge of manufacturing, installation, maintenance, and recycling of solar panels. The speaker also touched upon a revolutionary model in Mpumalanga for transforming waste coal into energy without threatening workers.

Thierry emphasized the need for municipalities to view renewable energy initiatives as opportunities rather than threats, especially in achieving sovereignty. The discussion highlighted the necessity for dedicated training and education programs, capacity building, and the development of centers of excellence to impart knowledge and skills related to renewable energy at the community and municipal levels.

#### **5.5. Feedback from Prof Cherry**

Excitement was expressed about the support for cooperative models, highlighting the importance of incorporating restitution and compensation in the private sector's response to the energy transition. Prof Cherry commended the mention of illegal connections as a critical issue to pilot in the urban mini-grid model, along with the significance of hybrid or biogas solutions.

The discussion acknowledged a potential pilot for a hybrid mini-grid using biogas generated through a biodigester linked to an alternative sewage system. Prof Cherry appreciated the input from Lebogang and

NEDLAC, particularly their support for the community of practice and the willingness to pilot these initiatives extensively. The challenges of the REIPPPP program, lack of financial benefits, and addressing conflicts in communities were acknowledged.

Key points included the importance of developing democratic and transparent structures in communities, acknowledging them as owners rather than beneficiaries. Thierry's support for communities owning productive assets was highlighted. Prof Cherry thanked Mona for critical points about reimagining financial instruments for SORE, emphasizing the need for financial sustainability.

The concept of the worker-owner model was discussed, focusing on workers owning PV solar facilities and selling electricity to private companies rather than municipalities. The need for skills development and the welcoming attitude of municipalities were highlighted. Dr. Silas emphasized the need to establish mechanisms for ordinary residents to benefit from selling electricity to the grid, advocating for a subsidized feed-in tariff. Overall, the feedback emphasized the importance of community ownership, financial sustainability, and addressing practical challenges in implementing renewable energy initiatives.

Prof Bernd Siebenhuener from Germany provided insights on the feed-in tariff system and Germany's experience with decentralized energy transitions. He acknowledged the success of Germany's high feed-in tariff system, which initially led to increased costs for electricity consumers due to private sales. However, it played a pivotal role in achieving over 50% of electricity production from renewables in Germany.

Prof Siebenhuener highlighted the significance of wind energy, especially wind farms owned by farmers, contributing to public acceptance of wind turbines. He mentioned recent developments involving big businesses, such as BP, investing billions in offshore wind projects to access the German market.

Addressing job creation, Prof Siebenhuener mentioned that Germany has calculated 344,000 jobs in the renewable energy sector. He echoed Thierry's emphasis on skill development and training, supporting the idea of decentralized ownership for resilience and risk reduction in electricity provision.

In response to Thierry's distinction between collaboration and cooperation, Prof Siebenhuener stressed the need for cooperation in the energy transition. His insights provided a valuable international perspective on the challenges and successes of decentralized renewable energy models.

## **5.6. Other concerns and comments:**

**Outdated Climate Change Action Plans:** One participant highlighted that some municipalities, including the district office, have outdated climate change action plans, dating back to 2016. This raises a concern about the lack of updated policies and strategies to address the rapidly changing landscape of energy transition.

**Community Understanding and Involvement:** Another participant expressed concern that the speed of the transition has left communities behind. He noted that during Integrated Development Plan (IDP) meetings, community members often express complaints rather than understanding how to actively contribute to solving the energy crisis.

**Capacity Building for Municipalities:** Ms Mareka responded to the concerns by emphasizing the need for capacity building and training for municipalities. She acknowledged that the energy transition is moving rapidly, leaving many uninformed municipal officials unable to respond effectively to community needs and innovative energy projects.

**Ownership Models and Worker Involvement:** The issue of social ownership and worker involvement in renewable energy projects was discussed. Concerns were raised about the hesitancy towards privatization and the need to ensure that the redistribution of renewable energy assets includes social ownership, not just private ownership.

**Speed of Implementation and High-Impact Areas:** Participants highlighted the need to expedite the implementation of renewable energy projects, especially in highly impacted areas facing the closure of coal-fired power stations or coal mines. There was a suggestion to prioritize such areas sooner to avoid missing opportunities.

**Challenges for Cooperatives:** A representative from a cooperative expressed challenges in accessing hereditary structures across provinces in the form of secondary cooperatives. The issues raised included the need for capacity building, training, and accessing resources for cooperative members.

**Community-Led Initiatives:** A participant shared a positive example of a community-led initiative in a well-organized township, where volunteers successfully produced feasibility studies, raised finance, engaged the community, and installed solar panels within a short period. The importance of community structures and volunteer efforts in the success of such initiatives was highlighted.

Overall, the Q&A session touched upon critical issues such as community engagement, capacity building, social ownership, and the need for swift action to address the energy transition challenges. The responses from panelists indicated ongoing efforts to address these concerns through consultations, partnerships, and capacity-building initiatives.