



Scaling Renewable Energy Generation & Access in SSA through Local Production & Assembly of Products

South Africa's 2023 Renewable Energy Independent Power Producer Programme (REIPPP)

December 2024

Overview

This policy brief **analyzes South Africa's Renewable Energy Independent Power Producer Procurement Programme (REIPPPP), a policy created in 2023 to help enhance private sector involvement in renewable energy projects.** A key feature of this policy is the "local content" requirement, aimed at stimulating domestic manufacturing and job creation within the renewable energy sector, particularly in solar and wind projects. The requirement has proven largely successful, however, adjustments have been necessary, particularly for solar panel requirements, to align with the capabilities and capacities of local manufacturers. This brief outlines the success factors and shortcomings of the policy, recommendations, best practices for adoption, and a call to action for policymakers

Background

"Local content" provisions in energy policies mandate local sourcing of a percentage of goods, services, or labour to substitute imports. These measures have worked in developed countries like Canada, France, and the United States, but remain underdeveloped in SSA mainly due to limited manufacturing capacities. Such provisions serve as a tool to ensure that renewable energy initiatives not only address energy demands but also contribute to broader economic development goals, including:

- **Stimulate local manufacturing sector** by enhancing domestic production capacity of renewable energy components, such as solar panels and wind turbines, reducing dependency on imported materials thereby supporting broader economic growth. For example, South Africa's REIPPP led to the establishment of assembly and manufacturing facilities which led to 49% of the overall total project value being locally procured as of March 2024^{2,3,4,7}
- **Create employment and encourage skills development** by building local technical capacity (both for production and maintenance activities), creating long-term sector growth and knowledge^{2,3}
- **Lower costs over time** as locally sourced equipment is often easier and cheaper to maintain since spare parts and expertise are readily available within the country, minimizing downtime and reducing reliance on costly import tariffs

Policy Overview

South Africa's Renewable Energy Independent Power Producer Procurement Programme (REIPPPP) is **one of the prominent energy-focused policies in SSA that includes a "local content" requirement.** Developed by the Department of Energy (DoE) and managed by the Department of Mineral Resources and Energy (DMRE), REIPPPP is a flagship program that has effectively helped address South Africa's energy demands while promoting local economic development.

REIPPPP's local content requirement represents a holistic strategy for driving renewable energy adoption that not only aims to address the country's energy crisis but also to stimulate local industry. The policy on a whole has been successful, with measurable benefits including increased domestic economic activity, job creation in underdeveloped regions, and a boost to local manufacturing. For wind, the local content requirement has been implemented gradually and effectively. The target of localized sourcing increased from the initial 45% to 60% the 65% in the subsequent phases of procurement, demonstrating steady progress and industry adaptation. However, the approach to solar projects revealed challenges. Initially, a 100% local content requirement for solar panels was set, but it was later reduced to 30% to align with local manufacturing capacities. The revision acknowledges the need to balance industrial development objectives with the realities of the operating contexts.¹⁰

Success factors: Several factors have contributed to the effectiveness of local content requirements in South Africa:

- **Clear and flexible policy framework:** The REIPPPP established well-defined local content thresholds and targets for renewable energy projects and technologies, providing clear guidelines for developers and investors. The policy's phased approach, particularly for wind projects, allowed gradual adaptation, enabling local industries to scale up their capacity over time. Adjustments to local content thresholds, particularly for solar panels, demonstrated the government's responsiveness to localized challenges⁴



Policy Overview Cont'd

- **Strong private sector participation:** South Africa's robust private sector plays a pivotal role in driving the renewable energy industry. Supported by transparent policies and a regulatory environment that fosters competition, the sector has attracted significant investment and facilitated the implementation of large-scale renewable energy projects⁵
- **Industrial development:** South Africa's well-developed and diversified industrial base has supported the growth of the renewable energy sector. Local content requirements under the REIPPPP have been instrumental in driving this expansion, stimulating domestic manufacturing, creating jobs, facilitating technology transfer, and contributing to economic development nationwide⁶

Challenges: Despite its achievements, the local content requirement has faced several challenges:

- **Absence of local resources:** The absence of locally available raw materials necessary for solar panel production exacerbated supply challenges. For example, limited facilities produced photovoltaic (PV) components such as larger 550 Watt-plus modules and bifacial panels, which are a critical component of solar panels, meant that developers had to rely on imports, contravening the policy^{1,2,5,9}
- **Cost inefficiencies and poor project economic viability:** Local manufacturing faced higher costs due to diseconomies of scale, outdated technologies, and elevated labour expenses, rendering projects financially unsustainable and deterring some potential investors from investing in solar-related projects⁶
- **Technological and quality gaps:** Many local manufacturers were unable to meet the high-quality standards required for large-scale solar projects, leading to reliability and performance concerns, forcing developers to source high-quality components internationally
- **Policy and implementation inconsistencies:** The enforcement of local content requirements under REIPPPP was inconsistent, creating uncertainty among developers. Some projects received exemptions for importing panels, leading to an uneven playing field. The South African Photovoltaic Industry Association (SAPVIA) highlighted that while local content thresholds were set to encourage domestic manufacturing, enforcement was lacking, with some projects bypassing these requirements⁸

South Africa continues addressing these challenges through initiatives outlined in the 2023 South Africa Renewable Energy Masterplan (SAREM), including increasing public and private investment in local manufacturing, providing incentives (e.g., tax benefits and subsidies) for local manufacturers, developing larger, cost-efficient manufacturing facilities, and establishing local supply chains for raw materials to reduce dependency on imports.¹¹

Best Practices and Recommendation

South Africa's experience with local content requirements highlights valuable lessons for policymakers aiming to design and implement similar policies, including:

- **Comprehensive policy design process** that includes conducting feasibility studies and key stakeholder discussions (i.e., developers, investors, etc.) to understand local manufacturing and assembly capabilities to set realistic policy targets by technology. Policies should be tailored to ensure they are responsive to market realities while ensuring the long-term sustainability of renewable energy initiatives
- **Policy flexibility** allowing for periodic reviews based on sector progress and stakeholder feedback. In addition, policies must be adaptable to address challenges and align with evolving local market conditions
- **Local knowledge, resources and technical capabilities** to ensure the local manufacturing sector can properly build high quality renewable energy technologies. Constant training and education for key stakeholders across the supply chain of production is important
- **Gradual scaling of targets** should be implemented, starting with lower, achievable thresholds that progressively increase as domestic capacity strengthens, while phasing out incentives over time to promote self-sustained growth

German and other international policymakers can support SSA policymakers to institutionalize effective local content policies through:

- **Direct advocacy:** Engage in bilateral discussions to promote the adoption of tailored and market-sensitive local content policies
- **Policy design support:** Assist in the design and implementation of local content policies and support setting achievable targets that are aligned with market realities and capacities
- **Technical training:** Support knowledge sharing and advocacy programs to help train and education the local manufacturing sector to ensure sufficient local knowledge in the sourcing and building of high quality renewable energy technologies
- **Financial incentives:** Provide incentives such as tax breaks, low-interest loans, grants, and export guarantees that incentivize German investors to establish assembly and manufacturing facilities in SSA countries

Sources: 1) Green Building Africa, 2023, [link](#); 2) GreenCape, 2023, [link](#); 3) UNCTAD, [link](#); 4) IEOM Society, [link](#); 5) GIZ, *State of SA manufacturing, its potential and resources required for further development of PV Value Chains*, 2024, [link](#); 6) AOSIS, *Local content requirements and the impact on the South African renewable energy sector*, [link](#); 7) Department of Mineral Resources & Energy, 2024, [link](#); 8) ESI Africa, *SAPVIA calls for clarity on localization within REIPPPP*, [link](#); 9) Engineering News, [link](#); 10) Sawea, [link](#); 11) DMRE, [link](#)

Notes: There is limited information on policy implementation and data on outcomes specifically tied to this policy