

# South Africa s power generation supporting energy storage policy





### **Overview**

Is energy storage a viable option for South Africa's power system?

In the longer term, however, at higher levels of variable generation, flexibility requirements will significantly increase demanding interventions to ensure secure and cost-efficient operation of the South African power system. Energy storage was specifically noted to be highly suitable for this purpose.

Why is energy storage important in South Africa?

This enables storage to absorb excess capacity on the system when supply exceeds demand. In South Africa's constrained power system, energy storage can provide backup capacity that can be called on to reduce the extent of loadshedding. As noted earlier, energy storage offers accurate and swift / responsive dispatchability to the system.

Does South Africa's policy environment recognise energy storage?

The literature review and case studies revealed that a policy environment that recognises and signals the strategic value of energy storage can direct and enable development and investment in the sector. South Africa's policy environment, represented by the IRP 2019, recognises ESS but only as a generation asset.

How can energy storage be regulated in South Africa?

Identification of priority energy storage use cases and applications for the South African context to inform development of the corresponding regulatory framework. Amendment of the grid code to be technology agnostic and review the complete set of codes for optimal integration of ESS at all levels.

What are South Africa's energy storage development and manufacturing objectives?

South Africa's energy storage development and manufacturing objectives and roadmap. Anticipated changes in the generation and consumption profiles of



the country with consideration of the most recent IRP (Intervention 1.2 under Policy levers) and any subsequent techno-economic planning and modelling.

Is South Africa ready for energy storage?

The extent to which the South African market is ready for energy storage is considered in subsequent sections. The 2030 vision outlined in the National Development Plan (NDP) of 2011 set the objective to completely eliminate income poverty and reduce inequality in the country.



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### Tapping into new ways of storing energy

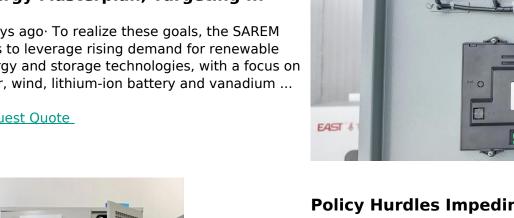
Government has identified battery storage as an alternative to support renewable energy expansion in South Africa and is taking the necessary steps to ensure its successful ...

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# **South Africa Approves Renewable Energy Masterplan, Targeting ...**

6 days ago. To realize these goals, the SAREM aims to leverage rising demand for renewable energy and storage technologies, with a focus on solar, wind, lithium-ion battery and vanadium ...

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# **Policy Hurdles Impeding Battery Energy Storage Deployment ...**

There are encouraging policy statements and commitments from political leaders in government indicating to provide local and international investors with policy certainty and regulatory ...

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### **REGULATORY ASSESSMENT OF BATTERY**

EXECUTIVE SUMMARY South Africa is facing a deepening energy crisis. Households and



businesses are facing rapidly escalating electricity costs, declining reliability and unpredictable ...

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# Assessing the Viability of Utilityscale Energy Storage: Policy ...

How should the South African government enable the development and growth of a utilityscale stationary energy storage market in the country, given its available policy levers and best

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# Utility-scale batteries in South Africa: Improving grid stability and

In South Africa, battery storage is increasingly seen as a key pillar to help provide grid stability and integrate variable renewables given its ageing coal-fired power fleet and grid. Competitive ...

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# South Africa Leads in Renewable Energy and Battery ...

For over 16 years, CIF and its partner multilateral development banks have been supporting South Africa to unlock the country's full ...



### **Country Analysis Brief: South Africa**

Although South Africa has a high level of access to electricity relative to other sub-Saharan African countries, its electric power sector experiences frequent power outages because of

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### Shaping South Africa's Energy Future

A transformative environment South Africa's renewable energy sector is on the cusp of significant transformation, driven by regulated transactions, decentralised generation, ...

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### South Africa Approves Renewable Energy Masterplan to Boost Clean Power

Aimed at boosting energy security and industrial development, the plan outlines a comprehensive strategy to expand renewable energy capacity and battery storage solutions in ...

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### South Africa Power Transition Outlook

South Africa's power sector is dominated by 43GW of coal plants, which comprised 69% of total installed capacity and supplied 84% of generation in 2022. However, national utility Eskom's ...





# South Africa approves plan to boost renewable energy by up to 5 ...

The SAREM is aimed at enhancing energy security, driving industrial growth, and reducing its reliance on coal-fired power generation through the addition of 3 to 5 gigawatts ...

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# 2030 South Africa Roadmap

Clean power generation technologies are the most readily available, scalable decarbonization solutions. To enable zero-carbon electrification of further sectors, renewable energy capacity ...

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# South Africa Approves Renewable Energy ...

6 days ago. To realize these goals, the SAREM aims to leverage rising demand for renewable energy and storage technologies, with a focus on solar, wind, ...







### **South Africa**

Policy Spotlight CoalO2-X RDI Programme: The government aims to use renewable or green hydrogen and pollutants (CO2, SOx, NOx etc.) contained ...

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# Policy Hurdles Impeding Battery Energy Storage Deployment ...

The promotion of the energy storage ecosystem, paired with South Africa abundant reserves of key materials for battery storage technologies, such as manganese, vanadium and the ...

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# <u>Securing South Africa's energy future:</u> <u>strategies and ...</u>

Thanzi Ramukosi explains how South Africa's transition away from fossil fuels to a more sustainable energy mix brings with it compelling

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# Transformation of South Africa's energy landscape: Policy ...

Generators, often powered by fossil fuels such as diesel or gas, play a crucial role in South Africa's energy landscape, providing backup power during grid outages and ...







### About 85% of South Africa's electricity is produced by burning coal. The country's move to renewable energy means that the coal industry will be phased out. To this end, the ...

South Africa finally has a

masterplan for a renewable energy

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# South Africa Approves Renewable Energy ...

African Energy Week: Invest in African Energies 2025 will examine the impact the South African Renewable Energy Masterplan will have on the ...

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## Why solar energy and battery storage are key to South Africa's ...

The session highlighted the critical role of solar power and energy storage in enhancing energy security and supporting Africa's energy transition toward sustainability.



# South Africa finally has a masterplan for a renewable ...

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# Tapping into new ways of storing energy

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# South African Renewable Energy Masterplan (SAREM)

In South Africa, the early deployment of renewable energy and battery technologies consisted of pilot projects and niche applications, such as the electrification of remote communities and ...

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# A Retrospective on Southern Africa's Energy Transition: ...

Southern Africa boasts the most advanced power pool on the continent, yet it remains the least funded in terms of off-grid investments. Although the region has significant potential for ...





### South Africa Approves Renewable Energy Masterplan ...

Aimed at boosting energy security and industrial development, the plan outlines a comprehensive strategy to expand renewable energy capacity ...

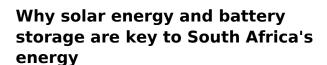
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## South Africa Leads in Renewable Energy and Battery Storage, CIF

For over 16 years, CIF and its partner multilateral development banks have been supporting South Africa to unlock the country's full renewable potential, by bridging high up ...

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# South Africa approves plan to boost renewable energy ...

The SAREM is aimed at enhancing energy security, driving industrial growth, and reducing its reliance on coal-fired power generation ...

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# South Africa policy recommendations for renewable electricity

Fast-track implementation of the TDP: Ensure timely implementation of the TDP to connect new generation capacity and prioritise renewable energy projects, supporting South Africa's energy

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