

## Global PV Storage Insights

# Expected ROI of large scale battery storage project in South Africa 2026



## Overview

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Where will the battery energy storage project be implemented?

The Project will be implemented at approximately 17 sites, located within or adjacent to existing distribution substations of Eskom, across four provinces of South Africa. The Battery Energy Storage Project (Project) provides a solution to address both challenges.

Is South Africa ready for battery storage?

The South African government has acknowledged the potential of battery storage and has set ambitious targets for its deployment. The 2019 Integrated Resource Plan (IRP) and Eskom's Transmission Development Plan (TDP) project a need for 2GW to 6.6GW of battery storage capacity to be installed by 2032.

How can South Africa tackle battery storage challenges?

To overcome these challenges and unlock the potential within the battery storage sector, South Africa needs a multi-pronged approach that must include: investment in refining and processing infrastructure; focusing on existing strengths; fostering collaboration; developing attractive investment incentives; and embracing innovation.

How can South Africa develop a sustainable and competitive battery storage industry?

Addressing this gap is crucial for the development of a sustainable and competitive domestic industry. Competition: The global battery storage industry is already dominated by established players, particularly in Asian countries. South Africa needs to develop a strong value proposition to attract investments and compete effectively.

Does South Africa have a battery storage tender programme?

South Africa is aiming to procure utility-scale battery storage with two tender

programmes: its Battery Storage IPP Procurement Programme as well as hybrid battery storage and variable renewables projects through its Risk Mitigation IPP Procurement Programme.

Why is the South African government using IPP to allocate battery storage?

In 2022, this led to unprecedented load shedding of more than 8 terawatt-hours (TWh), which was a fourfold increase in unmet demand compared with the previous year. As a result, the South African government is using its Independent Power Producer (IPP) Procurement Programmes to allocate firm capacity, including battery storage.

## Expected ROI of large scale battery storage project in South Africa



### Eskom opens Africa's biggest battery storage facility

Under-fire power utility Eskom has unveiled what it dubs the first of its kind and the largest battery energy storage system (BESS) project, not only in South Africa, but on the ...

### Tapping into new ways of storing energy

Eskom is also bringing online its own battery storage with the first of seven utility-scale grid-connected Eskom Battery Energy Storage System (BESS) coming online last ...



Warranty  
**10 years**

- LiFePO<sub>4</sub>
- Intelligent BMS
- Wide Temp: -20°C to 55°C



### Scatec wins battery storage project in South Africa

The estimated total capex for the battery energy storage project is ZAR 2.2 billion (USD 120 million) of which Scatec's EPC contracts account for approximately 80%. The project will be financed by 90% non-recourse project ...

### South Africa's biggest solar battery now online

The battery storage system is fed from 540MW of solar energy generated by nearly 1 million panels spread over three plants covering 879 hectares in the Northern Cape.



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## Lithium-ion battery storage technology: South Africa ...

The race to perfect battery storage technologies, including extinguishing the fires, is up against the race to cure carbon emissions in existing reliable fossil fuel technologies.

## Envision Powers South Africa's Largest Battery Storage Project

The Oasis energy storage sites, located in Northern Cape Province, are expected to be operational by late 2026. The initiative, which is the largest battery energy ...



## South Africa announces R4.7-billion in grid-scale ...

South Africa has added two grid-scale battery energy storage projects under bid window 1 of the Battery Energy Storage Independent Power Producer Procurement Programme - clumsily abbreviated as BESIPPPP - ...



## GRIDSTOR ANNOUNCES ACQUISITION OF TEXAS ...

150 MW / 300 MWh acquisition will help the region meet rising power demand from data centers and other large customers PORTLAND, Ore. - February 3, 2025 - GridStor, a developer and operator of utility-scale battery ...

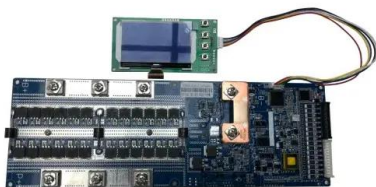


## US utility-scale energy storage to double, reach 65 ...

A field of Tesla megapack batteries. U.S. utility-scale battery storage capacity will reach almost 65 GW by the end of 2026, according to the Energy Information Administration. Provided by Tesla

## Tapping into new ways of storing energy

Eskom is also bringing online its own battery storage with the first of seven utility-scale grid-connected Eskom Battery Energy Storage System (BESS) coming online last year. The utility opened its Hex BESS site in ...



## South Africa's Battery Storage Projects Transform ...

South Africa has reached a major milestone in its renewable energy transition, as three cutting-edge Battery Energy Storage System (BESS) projects, collectively known as Oasis, progress toward implementation. These ...

## European Market Outlook for Battery Storage 2025-2029

European Market Outlook for Battery Storage 2025-2029 7 May 2025 The report explores trends and forecasts across residential, commercial & industrial (C& I), and utility ...



## Will South Africa's R850M Battery Relief in 2026 End Stage 6 ...

By harnessing advanced battery technology, the government hopes to stabilize the national grid, ensuring a more reliable power supply and potentially ending the dreaded ...

## Large-Scale Battery Storage Knowledge Sharing Report

DISCLAIMER This report has been prepared by Aurecon at the request of the Australian Renewable Energy Agency (ARENA). It is intended solely to provide information on the key ...



## South Africa's largest battery storage project goes online

South Africa's public utility, Eskom, has switched on a 20 MW/100 MWh Hex battery energy storage system (BESS) in Worcester, Western Cape province, to mitigate the challenge of load shedding.

## Battery Storage Era: 5 Reasons BESS Is ...

Battery costs have fallen down substantially by over 90 percent in recent years to make energy storage an attractive investment for the solar and wind project developers. Notably, the global average lithium-ion battery pack ...

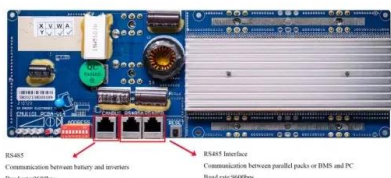
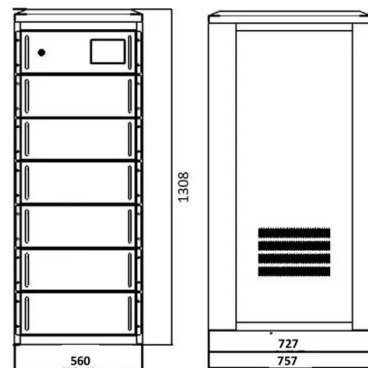


## Large-scale batteries lead the charge

Mortlake Power Station In August 2024, construction commenced on the \$400 million large-scale battery at the Mortlake Power Station in south-west Victoria, with commissioning expected by late 2026. With a ...

## OASIS 1 Battery energy storage systems projects in ...

The three Oasis 1 battery energy storage systems (BESS) projects, led by EDF in collaboration with Mulilo, Pele Green Energy and Gibb Crede, reached financial close, on 15 and 19 November 2024. Awarded in the ...



## Big batteries in 2024 - the opportunities and ...

The recent surge in utility-scale battery storage activity is expected to continue through 2024 and onwards, underscored by government-led investment schemes and the successful progression of major battery projects.

## Understanding the Return of Investment (ROI): battery energy storage ...

Several key factors influence the ROI of a BESS. In order to assess the ROI of a battery energy storage system, we need to understand that there are two types of factors to keep in mind: ...

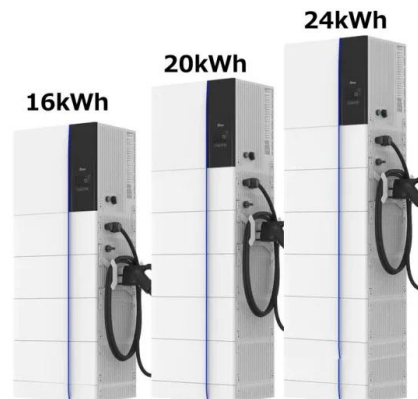


## South Africa's battery storage revolution

The energy transition presents a unique opportunity for South Africa to not only address its internal challenges, but also become a global player in the battery storage industry.

## BESS 101: Understanding Battery Energy Storage ...

Here's how we can help: Expertise in Battery Storage Solutions SOLA has been at the forefront of renewable energy development, and our expertise in battery storage means that we can provide custom solutions to suit the needs of ...



## South Africa Advances in Energy Storage with New Battery Projects

Explore the details of South Africa's new battery energy storage projects under BESIPPPP, set to enhance grid stability and support economic growth with significant job ...

## Cost Projections for Utility-Scale Battery Storage: 2021 ...

Executive Summary In this work we describe the development of cost and performance projections for utility-scale lithium-ion battery systems, with a focus on 4-hour duration ...

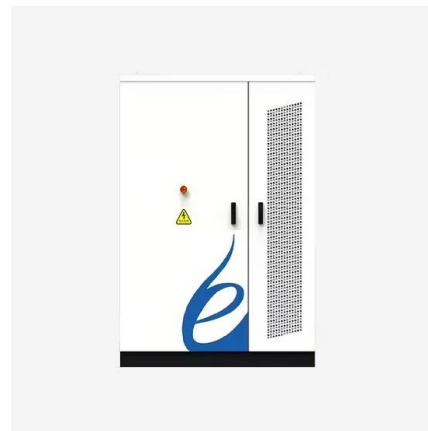


## DMR Newsroom , Department of Mineral Resources

In support of the current economic challenges that South Africa is facing, the two projects have committed a total of 487 job opportunities (measured in job years) for South ...

## Battery Energy Storage Project

The Project will be implemented at approximately 17 sites, located within or adjacent to existing distribution substations of Eskom, across four provinces of South Africa. The Battery Energy Storage Project (Project) provides a solution ...



## DMR Newsroom , Department of Mineral Resources

Project construction is expected to take no more than 24 months and the storage capacity is expected to come online no later than November 2026. The projects will ...

## The Economics of Battery Storage: Costs, Savings, ...

For instance, a residential solar-plus-storage system might have a different ROI compared to a large-scale utility battery storage project. Impact of Incentives and Subsidies



## Australia installed 2.5GWh of battery storage in

This was followed by a further 4GWh of LDES resources winning another NSW tender in December, including a large-scale advanced compressed air energy storage (A-CAES) project and other 8-hour Li-ion ...

## Scatec awarded battery storage project for 103 MW in

...

Oslo, 30 November 2023: Scatec ASA has been awarded preferred bidder status for the Mogobe (Ferrum) battery energy storage project totalling 103 MW/ 412 MWh under the first bid window of the Battery Energy Storage Independent ...



## Lithium-ion battery storage technology: South Africa needs to ...

Lithium-ion battery storage technology is yet to reach reliability, safety and reasonable durability when deployed at a large scale. The world is still at an experimental ...

## South Africa's largest battery storage project goes online

South Africa's public utility, Eskom, has switched on a 20 MW/100 MWh Hex battery energy storage system (BESS) in Worcester, Western Cape province, to mitigate the ...



## 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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