

## Solar Energy South Africa

# Greenland ia batteries and secure energy transitions



## Overview

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Are batteries a key role in energy transitions?

Batteries are set to play a leading role in secure energy transitions. They are critical to achieve commitments made by nearly 200 countries at COP28 in 2023. Their commitments aim to transition away from fossil fuels and by 2030 to triple global renewable energy capacity and double the pace of energy efficiency improvements.

Are batteries the key to a sustainable future?

Those pledges include tripling global renewable energy capacity by 2030, doubling the rate of energy efficiency improvements, and facilitating the transition away from fossil fuels. Batteries have an essential role to support of the goal of tripling the installed capacity of renewables worldwide.

Who wrote the IEA special report on batteries & secure energy transitions?

I would like to thank the IEA colleagues who worked on this special report on Batteries and Secure Energy Transitions for their excellent and insightful analysis – under the leadership of Laura Cozzi, Director of Sustainability, Technology and Outlooks, and lead authors Brent Wanner and Apostolos Petropoulos.

What's new in battery technology?

These include tripling global renewable energy capacity, doubling the pace of energy efficiency improvements and transitioning away from fossil fuels. This special report brings together the latest data and information on batteries from around the world, including recent market developments and technological advances.

How should EVs and battery storage be regulated?

Establish clear and stable regulatory frameworks that define the role of EVs and battery storage in the energy transition. This involves clarifying the role

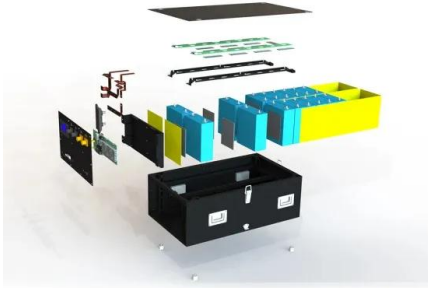
over time of these technologies in the context of clean energy transition plans and emissions reduction targets.

Are batteries the key to achieving climate goals?

In the NZE Scenario, about 60% of the CO<sub>2</sub> emissions reductions in 2030 in the energy sector are associated with batteries, making them a critical element to meeting our shared climate goals. Close to 20% are directly linked to batteries in EVs and battery-enabled solar PV.

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### IEA - Batteries and Secure Energy Transitions

The IEA's Special Report on Batteries and Secure Energy Transitions highlights the key role batteries will play in fulfilling the recent 2030 commitments made by nearly 200 countries at COP28 to put the global energy system on the path to net zero emissions. These include tripling global renewable energy capacity, doubling the pace of energy

### [Batteries and Secure Energy Transitions](#)

IEA 2024. CC BY 4.0. Page 5 The energy sector has propelled growth in the global battery market In 2016, the energy sector made up around half of global battery demand... by 2023, the energy sector accounted for more than 90% of a market that was ten times larger. Global battery market in 2016 (energy sector share = 50%) Global battery market



### IEA Publishes Special Report: Batteries and Secure Energy Transitions

The International Energy Agency has published Batteries and Secure Energy Transitions, a World Energy Outlook Special Report.. Due to their versatility, batteries can serve both utility-scale projects and behind-the-meter storage for households and businesses as well as providing access to electricity in decentralised solutions such as mini-grids and solar home ...

## Batteries and Secure Energy Transitions , Policy Commons

The IEA's Special Report on Batteries and Secure Energy Transitions highlights the key role batteries will play in fulfilling the recent 2030 commitments made by nearly 200 countries at COP28 to put the global energy system on the path to net zero emissions.



### [Batteries and Secure Energy Transitions](#)

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## [Batteries and Secure Energy Transitions](#)

International Energy Agency , Batteries and Secure Energy Transitions. Many highlevel government representatives and international experts from outside of the - IEA have contributed to the process, from early consultations to reviewing the draft at a later stage, and their comments and suggestions were of great value. They include:



## [Batteries and Secure Energy Transitions](#)

The IEA's Special Report on Batteries and Secure Energy Transitions will highlight the important role of battery technologies to fulfil recent commitments made by nearly 200 countries at COP28, including tripling global renewable energy capacity by 2030, doubling the pace of energy efficiency improvements by 2030 and transitioning away from fossil fuels.

## [Batteries and Secure Energy Transitions](#)

International Energy Agency , Batteries and Secure Energy Transitions. Governments have an important part to play in building out resilient

local and international supply chains to ensure that securely and sustainably produced batteries come to market at a reasonable cost. Legislation such as the Inflation Reduction Act in the United States, the



**IEA**

Batteries are an important part of the global energy system today and are poised to play a critical role in secure clean energy transitions. In the transport sector, they are the essential component in the millions of electric vehicles sold each year. In the power sector, battery storage is the fastest growing clean energy technology on the market.

**Executive summary - Batteries and Secure Energy Transitions**

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Batteries are key to the transition away from fossil fuels and accelerate the pace of energy efficiency through electrification and greater use of renewables in power. In transport, a ...



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## Electricity Grids and Secure Energy Transitions

This new IEA special report, Electricity Grids and Secure Energy Transitions, offers a first-of-its-kind global stocktake of the world's grids as they stand now. It assesses signs they are not keeping pace with the new global energy economy that is emerging and the risk of them becoming a bottleneck for efforts to accelerate clean energy



## Batteries and Secure Energy Transitions - Analysis

The IEA's Special Report on Batteries and Secure Energy Transitions highlights the key role batteries will play in fulfilling the recent 2030 commitments made by nearly 200 countries at COP28 to put the global energy system on the path to net zero emissions. These include tripling global renewable energy capacity, doubling the pace of energy

## Publication

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## IEA Batteries and Secure Energy Transitions - World Energy Transition

In the NZE Scenario, about 60 per cent of the CO2 emissions reductions in 2030 in the energy sector are associated with batteries, making them a critical element. Batteries in EVs and storage installations reduce the need for imported fossil fuels, increasing self-sufficiency in many countries.



## IEA calls for sixfold growth in energy storage capacity

In its Batteries and Secure Energy Transitions report, published on 25 April, the IEA underscores the critical role of batteries in achieving the climate and energy objectives outlined at the COP28 climate conference. The report highlights the ...

## Batteries and Secure Energy Transitions - Analysis

Batteries and Secure Energy Transitions - Analysis and key findings. A report by the International Energy Agency. Live Global Summit on People-Centred Clean Energy Transitions;

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