Solar Storage Container Solutions

Victoria Compressed Air Energy Storage Project

Overview

Canadian startup Hydrostor will build the 5 MW / 10 MWh compressed air storage facility at the old Angas Zinc Mine near Strathalbyn, about 60 kilometres south-east of Adelaide.What is the first underground compressed air storage facility in Australia?

It will be the first time underground compressed air storage technology has been used in Australia. (Supplied: Hydrostor) A $638 million renewable energy project has been approved at a disused mine on the outskirts of Broken Hill. The "first-of-its-kind" underground compressed air storage facility will be built by Canadian company Hydrostor.

Can a compressed air system save energy?

Hydrostor, a Canadian startup, plans to build a 5 MW / 10 MWh compressed air storage facility at the old Angas Zinc Mine near Strathalbyn, about 60 kilometres south-east of Adelaide. They claim that their compressed air system can provide the lowest cost bulk energy storage, undercutting more established methods available today.

How does compressed air work in Australia?

The compressed air is sent down a shaft into a purpose-built underground cavern. When energy is required, compressed air is sent back up the shaft to drive a turbine, which generates electricity that can be used to stabilize the local grid, provide energy for Broken Hill, or be sold into Australia’s National Electricity Market (NEM) grid.

Where is compressed air stored?

Compressed air is commonly stored in geological formations like rock reservoirs or salt mines, leveraging pre-existing infrastructure to reduce costs. CAES employs two primary storage approaches: In constant-volume storage systems, specific physical boundaries govern storage space volume while permitting variable air pressure.

How does compressed air storage work?

One such storage solution revolves around compressed air, offering a reservoir for surplus electricity when demand is low. CAES is a proven method of storing energy in compressed air, which can later be harnessed for power generation during peak demand or when other energy sources are unavailable.

What is advanced compressed air energy storage (a-CAES)?

Advanced Compressed Air Energy Storage (A-CAES) is a technology that provides long duration storage, lasting for hours or even days, with capacity limited only by the size of the underground cavern. In the case of the Strathalbyn site, an existing underground void will be repurposed to store the compressed air.

Victoria Compressed Air Energy Storage Project

Australia gives go-ahead to 1.6 GWh compressed air storage project

Feb 25, 2025 · The deal requires Hydrostor to reserve up to 50 MW of capacity, representing up to 250 MWh of storage from the Silver City project, to provide back-up power supply. During ...

World's first 300 MW compressed air energy storage plant ...

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World's largest compressed air energy storage project ...

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Advanced Compressed Air Energy Storage Systems: ...

Mar 1, 2024 · Compressed air energy storage

(CAES) is an effective solution for balancing this mismatch and therefore is suitable for use in future electrical systems to achieve a high ...

Air storage pioneer inks first of its kind deal to ...

Dec 8, 2023 · Hydrostor signs "first of its kind" deal for its compressed air storage technology to be used as an emergency backstop to keep the lights on in ...

Broken Hill's energy future secured by hi-tech air energy storage

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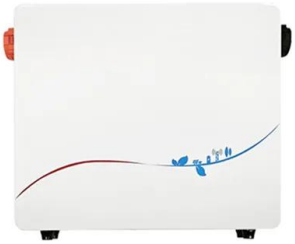

A comprehensive review of compressed air energy storage ...

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The future of long duration energy storage

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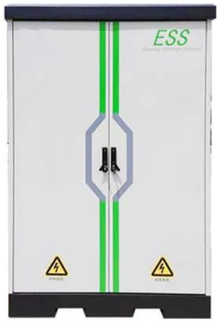

CSIRO PUBLISHING , Australian Energy Producers Journal

May 22, 2025 · King MJ, Moridis G (2022) Compressed Air Energy Storage in Aquifer and Depleted Gas Storage Reservoirs. In 'Advances in Energy Storage: Latest Developments from ...

ARENA funds $652M Compressed Air Energy Storage facility

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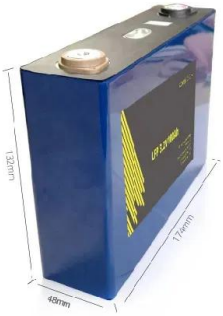

ARENA funding for 2 renewable energy storage projects

Oct 21, 2022 · Repurposing Broken Hill mine for compressed air energy storage ARENA has announced $45 million in funding to construct a 200 MW / 1600 MWh fuel-free energy storage ...

Underground compressed air energy storage ...

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ARENA funds $652M Compressed Air Energy Storage facility

Oct 24, 2022 · The $652 million project will repurpose a disused mine to facilitate the development of a subsurface air storage cavity that will be used to store compressed air. ...

Hydrostor Wins 200MW Compressed Air Energy Storage ...

A first-of-its-kind energy storage project for Australia, the LTESA contract demonstrates the important capabilities of Hydrostor's Advanced Compressed Air Energy Storage (A-CAES) ...

Repurposing Broken Hill mine for renewable energy ...

ARENA's funding for the Silver City Energy Storage Project, developed by Hydrostor, is conditional upon the project reaching financial close, which is expected to occur in late 2023. ...

World's largest compressed air grid "batteries" ...

Apr 30, 2021 · California is set to be home to two new compressed-air energy storage facilities - each claiming the crown for the world's largest non-hydro ...

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