



WALMER ENERGY

Australia Sydney flow battery manufacturer





Overview

Allegro Energy, an Australian-based developer of water-based redox flow battery energy storage solutions, has revealed what it claims is Australia's first locally manufactured microemulsion flow battery (MeFB) suited for long-duration energy storage (LDES). Are flow batteries coming to Australia?

But they are, finally, arriving in earnest. This year, the Australian government launched a national battery strategy to expand domestic manufacturing of batteries. This A\$500 million strategy will focus on the well-known lithium-ion batteries which power phones and cars. But it will also include flow batteries.

Could flow batteries reshape Australia's Energy Future?

Enter flow batteries —a homegrown technology that could reshape Australia's energy future. Unlike lithium-ion batteries, which max out at four to six hours of storage, flow batteries can store energy for up to 12 hours, making them a game-changer for balancing solar and wind power. And here's the kicker—this tech isn't imported.

What is Australia's Best Practice Guide for flow batteries?

Australia's long-standing leadership in flow battery technology has reached a new milestone with the release of the battery best practice guide for flow batteries titled *Flow Battery Energy Storage - Guidelines for Safe and Effective Use*.

Can we use flow batteries?

We can also use flow batteries. These are a lesser-known cross between a conventional battery and a fuel cell. Flow batteries can feed energy back to the grid for up to 12 hours – much longer than lithium-ion batteries which only last four to six hours. I was one of the inventors of one of the main types of flow battery in the 1980s.



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Oct 22, 2025 · With approximately 25 per cent of the world's vanadium reserves located within its borders, UNSW Sydney said Australia is ...

Australian Flow Batteries

Australian Flow Batteries, based in Bibra Lake, delivers Vanadium Redox Flow Battery solutions for safe, scalable, and renewable energy storage.

Australia Releases Battery Best Practice Guide ...

Jul 9, 2025 · Australia is the birthplace of the vanadium redox flow battery, developed in the 1980s by a team at the University of New South Wales. ...

Thorion Energy

Thorion Energy is Australia's first Vanadium Redox Flow Battery manufacturer, using exclusive chloride-based electrolyte technology. The company's business model allows the design, ...

Australian redox flow battery manufacturer ramps up capacity

Sep 10, 2024 · Allegro Energy, an Australian redox flow battery developer, aims to "rapidly accelerate" its manufacturing capacity after closing a AUD 17.5 million (\$11.6 million) funding ...

NATO 6T Defence Batteries Australia

MIL-PRF-32565C certified super6T(TM) NATO batteries for US Department of Defense. ITAR compliant with Buy American Act considerations. ...

Next-gen Gelion batteries to be made in ...

3 days ago · It will provide manufacturing scale-up of the Gelion Endure non-flow zinc-bromide (ZnBr₂) battery at its site in Fairfield, Sydney. ...

Australia needs better ways of storing ...

Jan 6, 2025 · Despite different chemistries, flow batteries share many common components which could be made locally and boost energy self ...

Experts gather at UNSW to discuss Australia's future in flow battery

Oct 14, 2024 · With approximately 25 per cent of the world's vanadium reserves located within its borders, UNSW Sydney said Australia is positioned to develop a robust flow battery industry, ...

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Discover clean, reliable power with Australian Flow Batteries. Fast to deploy, modular, and sustainable, our systems replace diesel for remote communities, mines, ports, and emergency ...



Australia's Allegro reveals microemulsion flow ...

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Australian battery manufacturer , Battery Energy Power ...

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Australia's Allegro reveals microemulsion flow battery for ...

Apr 1, 2025 · Allegro Energy has revealed what it claims is Australia's first locally manufactured microemulsion flow battery (MeFB) suited for LDES.

Global Symposium celebrates 40 years of ...

Oct 31, 2024 · Australian companies also played a central role, emphasising the unique potential for a fully domestic VFB supply chain - from ...

Answer is ESS for Australian iron flow ...

Sep 26, 2024 · The pilot project was the first in Australia to test iron flow batteries. At Stanwell's \$100 million Future Energy and Innovation ...

Supercharging battery manufacturing in Australia

Aug 19, 2025 · Battery cell manufacturing: supporting manufacture of electrochemical battery cells and components that directly support battery cell manufacturing Battery pack assembly: ...

Australia Releases Battery Best Practice Guide for Flow Batteries

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Flow Batteries: The Next Big Leap in Australia's Renewable ...

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Ryzon Materials - Lithium-ion battery ...

Ryzon Materials (ASX: RYZ) is a vertically integrated lithium-ion battery technology and materials company in the Lithium-ion battery supply ...



Zinc-bromide battery for stationary energy ...

Nov 3, 2021 · Australian startup Gelion is seeking to commercialize a non-flow zinc-bromide battery based on a stable gel replacing a flowing ...

Cutting-edge battery tech to power Australia's future

Feb 13, 2025 · It's expected the long-duration energy storage market will be worth more than \$3 trillion globally by 2040, with battery storage key to lowering power bills and boosting energy ...

Allegro Energy unveils Australia's first ...

Mar 28, 2025 · Allegro Energy has introduced Australia's first domestically produced microemulsion flow battery for long-duration energy storage ...

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