

2024

Australian Flow Batteries

Investor Presentation

Empowering the Renewable Energy Transition

Driving Innovation and Growth

Shaping a Sustainable Energy Future





INTRODUCTION

- Australian Flow Batteries primary focus is on the development and commercialisation of industrial, residential and utility scale vanadium redox flow batteries (“VRFB”) and renewable energy solutions.
 - AFB is conducting a capital raising of up to \$5,000,000.00 by the issue of 25,000,000 Shares at an issue price of \$0.20 per share to fund operations through until the end of 2028.
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AUSTRALIAN FLOW BATTERIES

Company Name

Australian Flow Batteries
Pty Ltd

Incorporated

April 21, 2022

Industry

Energy Solutions

Website

www.afb.energy

Products

- Residential VRFB
- Industrial VRFB
- Diesel Replacement System (SolarWing containerised solar array + Industrial VRFB)
- Virtual Power Plant (VPP) support

Address

12 Thermal Chase
Bibra Lake WA 6163



THE ENERGY DILEMMA

- Goal: Global commitment to renewable energy adoption
- Challenge: Intermittent nature of renewables
- Solution: Energy storage fundamental for transition

● INTERMITTENT RENEWABLE ENERGY

- Destabilises distribution networks.
- Causes equipment damage.
- Provides unreliable delivery at the network's edge.
- Rapidly increases costs for the consumer.
- Relies on fossil-fueled generation for peak demand.

● EXISTING ENERGY STORAGE LIMITATIONS

- Safety concerns.
- Limited lifespan.
- Environmental impact.

● DIESEL ENERGY RELIANCE

Industrial and remote energy users are still reliant on expensive diesel generators. In Australia there are over 6,000 off-grid diesel power systems (30% of remote area power usage), in addition to tens of thousands of standalone diesel generators.

● PACE OF RENEWABLE ADOPTION

Whilst over 3 million Australian have solar installed only 5% use battery storage. This is one example of the challenges faced by economies in transitioning to renewable energy.

VANADIUM REDOX FLOW BATTERY (VRFB)

BENEFITS

VRFBs are revolutionising the energy storage landscape and are playing a growing role in the transition to renewable energy sources such as solar and wind power.

01

Tolerates fluctuating power supplies.

02

Maintains 20,000+ charge/discharge cycles without over or under charging.

03

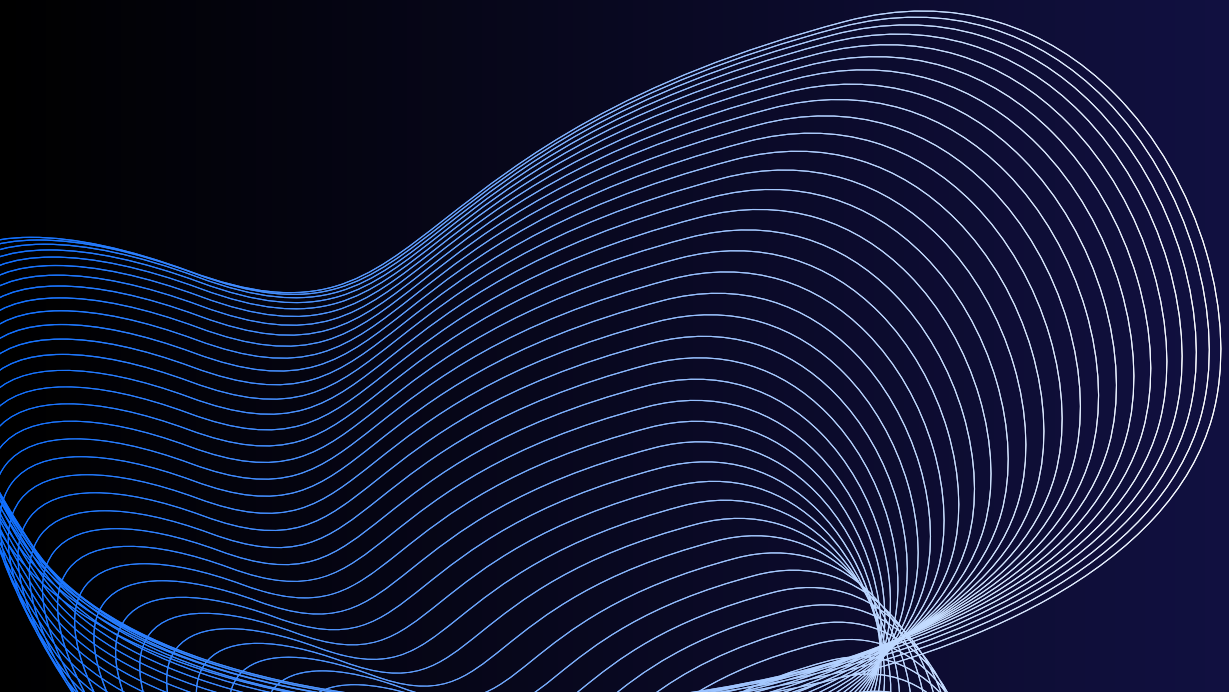
Operates at ambient temperatures between -10C and 50C.

04

Non-flammable with low toxicity; suitable for extreme Australian conditions and high temperatures.

05

Superior sustainability with a 20-year service life which is far longer than lithium batteries.



VRFB: GLOBAL ADOPTION

Vanadium redox flow batteries (VRFBs) have gained attention globally for their effectiveness in energy storage applications, virtual power plants (for energy retailers) and diesel replacement programs for remote industrial operations and communities.

DIESEL REPLACEMENT

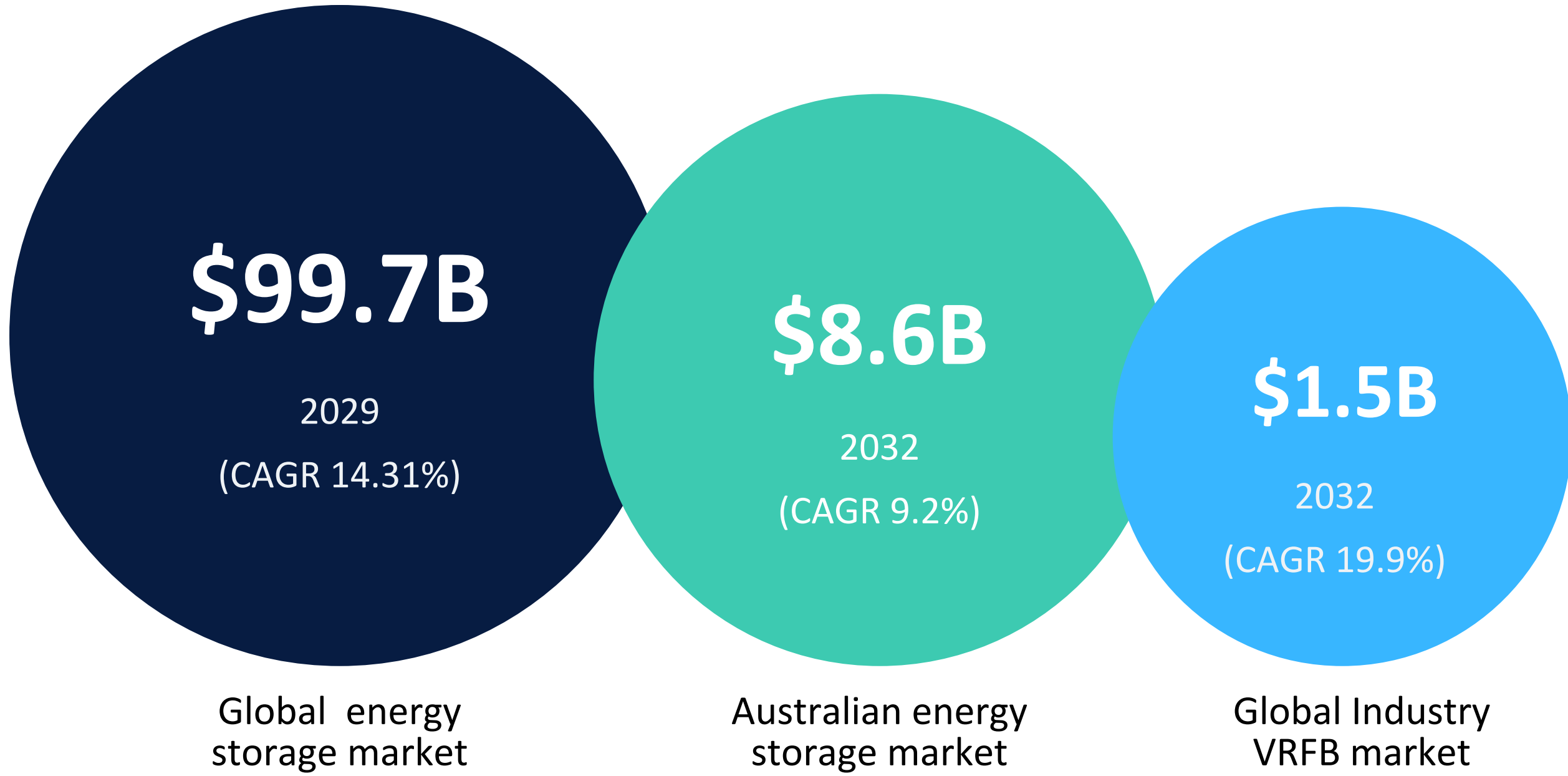
- Australia has many remote and off-grid locations that currently rely on diesel generators for power. There's a growing trend to replace these with renewable energy sources paired with energy storage.

RESIDENTIAL ENERGY STORAGE

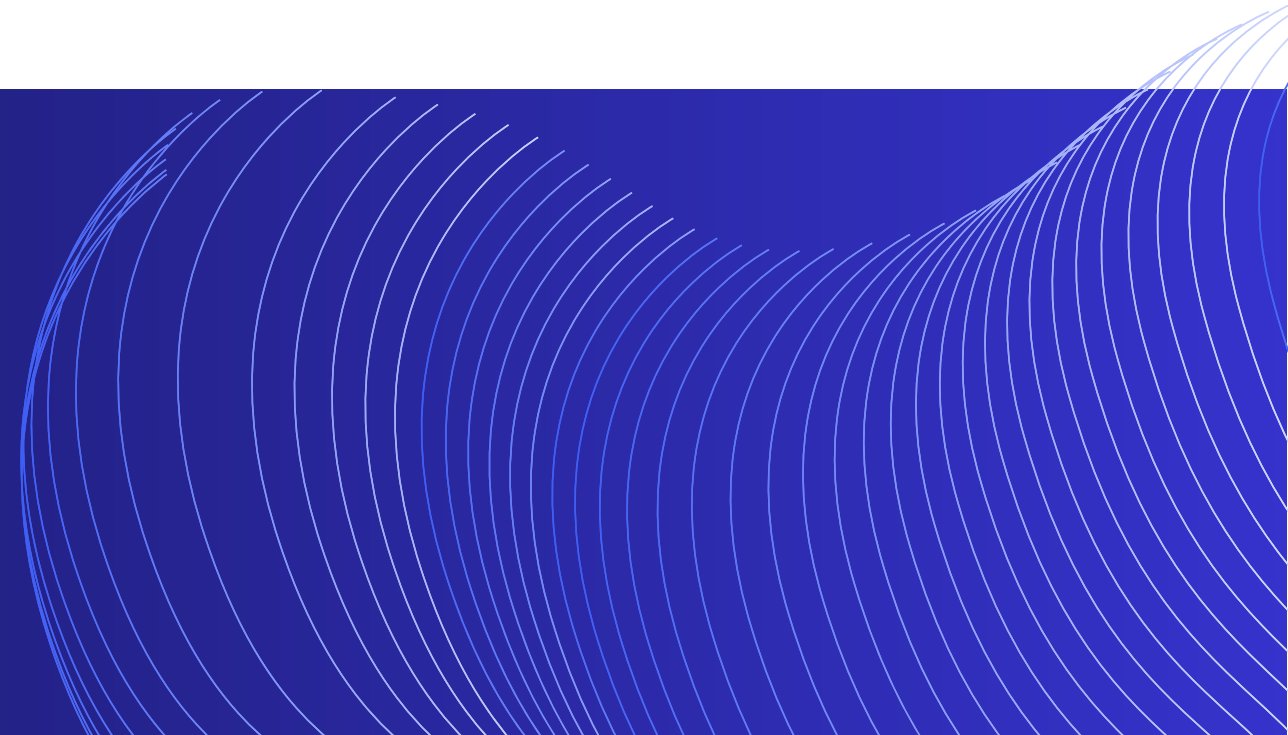
- As of 2023, approximately 30% of Australian homes had rooftop solar installed, one of the highest rates globally.
- The residential battery storage market in Australia has been growing rapidly, but less than 5% of solar installations use battery storage (2024).



The many countries with VRFB large deployments include China, Japan, South Korea, Russia, India, Philippines, Australia, USA, Canada, Brazil, Chile, Germany, UK, Spain, Italy, Nigeria, Egypt, Kenya and South Africa.

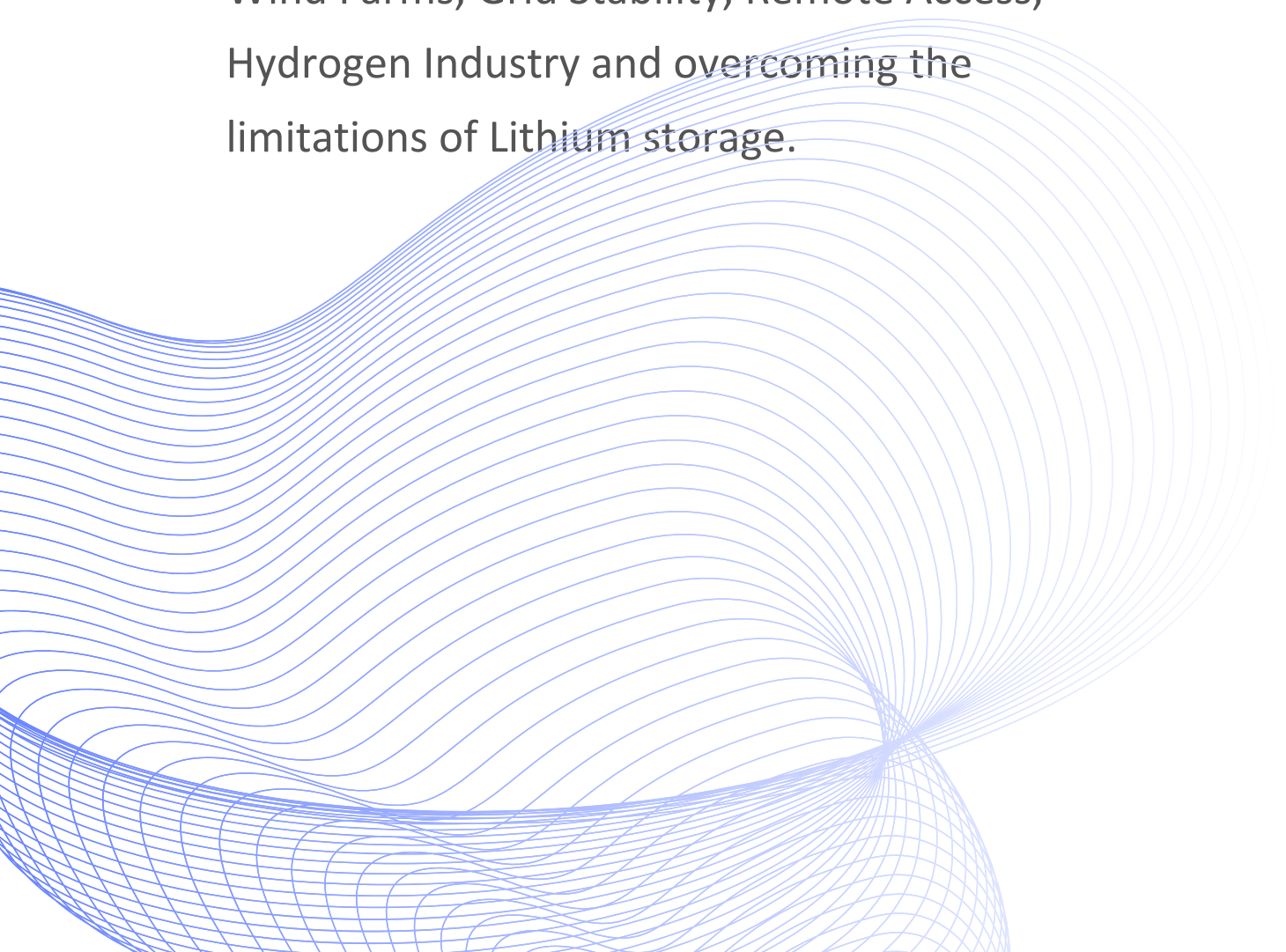


MARKET SIZE AND GROWTH



MARKET SEGMENTS AND OPPORTUNITIES

AFB's products tap into a booming global energy storage market including Solar & Wind Farms, Grid Stability, Remote Access, Hydrogen Industry and overcoming the limitations of Lithium storage.



Residential Energy Storage

AFB's energy storage solution for solar powered homes, designed as a long life asset for the over 3 million households with solar.

Industrial Energy Storage


AFB's scalable industrial storage solution enables the integration of renewable energy sources for industrial users.

Hybrid Diesel Replacement

AFB's SolarWing (containerised solar array) and Industrial VFRB batteries replace diesel generators for lower cost and lower emissions for remote and off grid applications.

Utility-Scale Storage

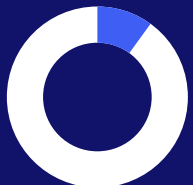
AFB's solutions for utility-scale energy storage plays a crucial role in ensuring grid stability, reliability, and flexibility in uses such as Virtual Power Plants (VPPs).

+  **25%**

- 20% battery adoption in residential solar by 2028.
- \$1.2B annual market opportunity.
- 25% market share = \$300M.

+  **20%**

- Off-grid power systems in Australia: 6,000+ systems, 2 GW capacity.
- \$400M diesel replacement market.
- 20% market share = \$80M annually.

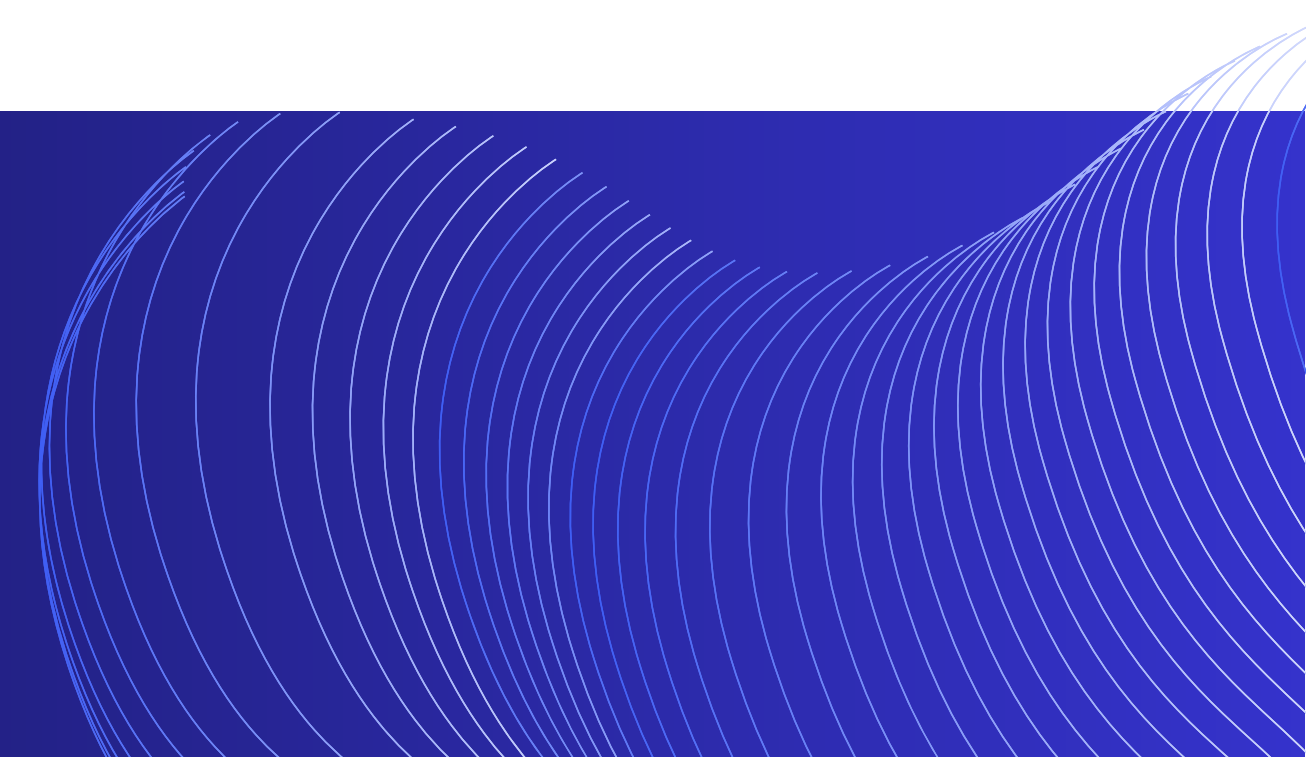
+  **10%**

- Virtual Power Plants (VPPs) by 2030: 2-3 GWh distributed storage.
- 15-20% of Australia's energy needs.
- \$6-8B annual market.
- 10% market share = \$600M.

Market Drivers:

- Manufacturing Capacity and Efficiency.
- Product Development and Innovation.
- Strategic Partnerships and Supply Chain Management.
- Market Expansion and Sales Strategy.

MARKET SEGMENT SIZE AND DRIVERS



RESIDENTIAL MARKET

COMPETING WITH LITHIUM STORAGE

Residential energy storage market:

- Dominated by lithium-ion batteries.
- Key players: Tesla, LG Chem, Sonnen.

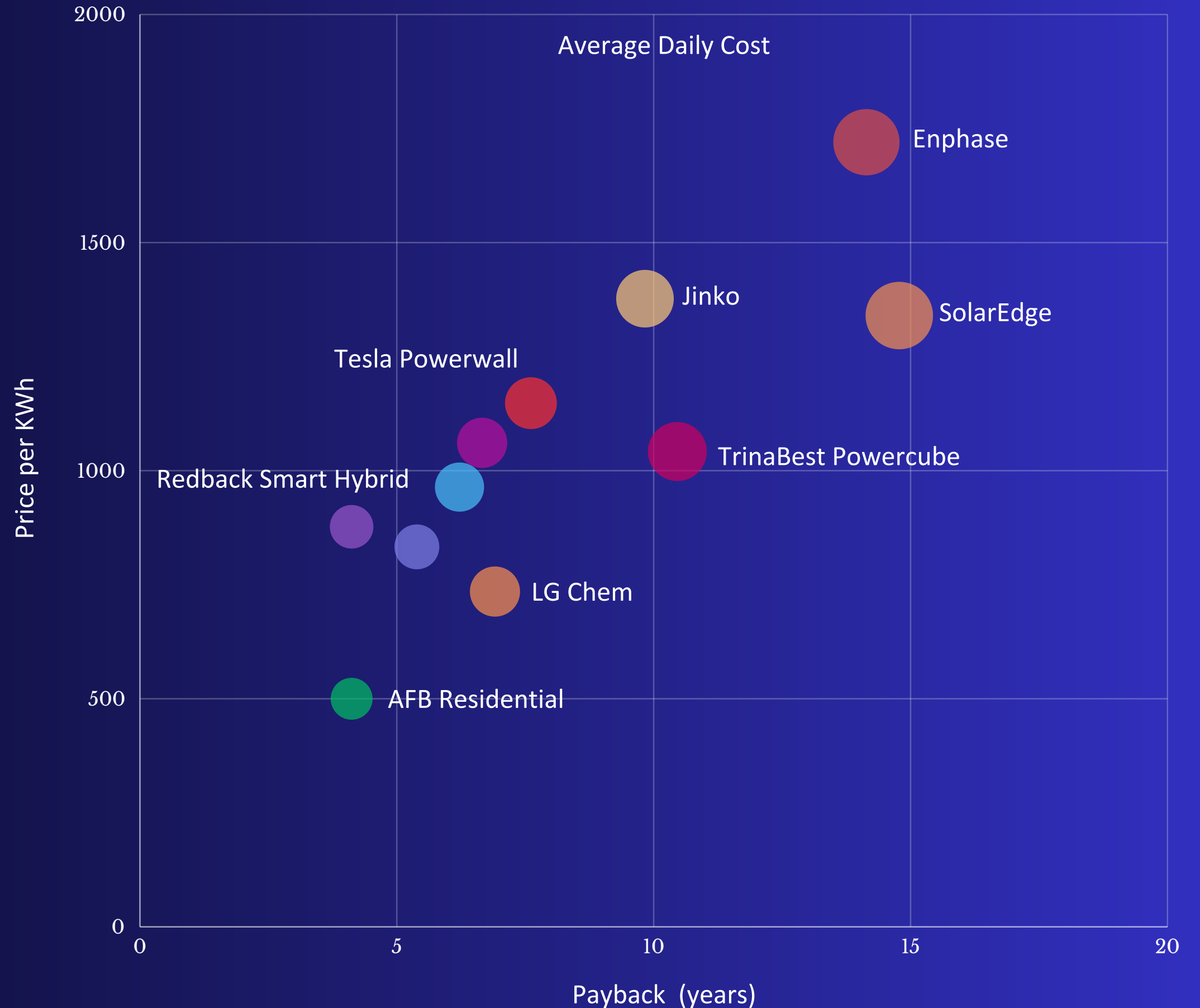
Lithium-ion advantages:

- Decreasing costs.
- Familiar to consumers/installers.

AFB's VRFB advantages:

- Longer lifespan.
- Safer alternative (no fire risk).
- Lower 20-year ownership cost.

AFB vs Lithium Battery Storage (Cost of Ownership)



COMPANY TIMELINE



2022

- Company was established and undertook an extensive R&D program to test and develop VRFB products, including industry research.

2023

- Established product lines for residential and industrial VRFBs, and our diesel replacement system.
- Extensive engagement with government.
- Deployment of diesel replacement system.
- Exceptional diesel consumption reductions for different operating scenarios.

2024

- A partnership with the Schmid Group for advancing the design, supply, and production of flow battery systems.
- Readiness to scale up production starting in late 2024, expand its sales reach, and deliver its cutting-edge solutions to a broader range of customers.

2025 - 2026 - 2027 - 2028

- Ramp manufacturing facilities.
- Scale-up the residential VRFB product in the residential market.
- Finalise and expand material supply agreements.
- Strengthen sales and marketing efforts to broaden market penetration.
- Diversify its product offerings with enhancements, new models and intensify R&D efforts for next-generation VRFB technologies.
- Achieve significant market share in Australia, New Zealand and lay the groundwork for international expansion.



Antony Smithson

CEO



Shane Meotti

Managing Director



Mark Reynolds

Chairman

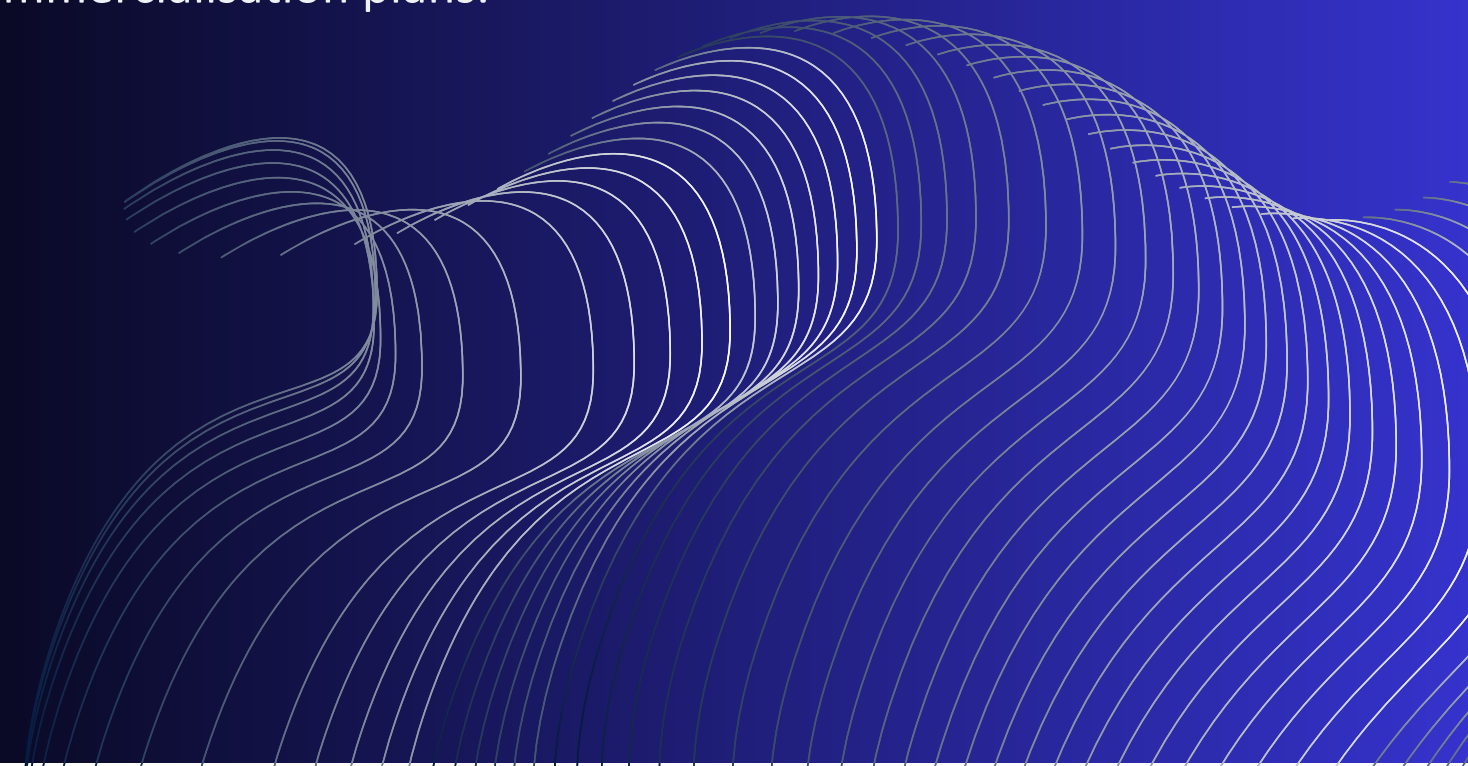


Simon Kemp

Technical Director

OUR TEAM

AFB has assembled an experienced management team who are well qualified to exploit the potential of the AFB's technology and intellectual property. The team has significant expertise and experience in VRFB and its associated technology, product development and corporate management, and will aim to ensure that funds raised through the Capital Raising will be strictly utilised cost-effectively to advance AFB's commercialisation plans.





GO-TO-MARKET STRATEGY

01

Residential and Industrial Markets

Offer tailored VRFB solutions for Australian households, industries, solar, wind farms and remote areas.

02

Foster partnerships and collaborations

Work with diverse stakeholders to support the renewable energy transition and establish Australia as a technology hub.

03

Invest in R&D

Continuously innovate VRFB technology, explore new applications, and collaborate with research partners.

04

Establish local manufacturing and supply chains

Set up Australian production, collaborate with local partners, and ramp up production to meet demand.

05

Expand Globally

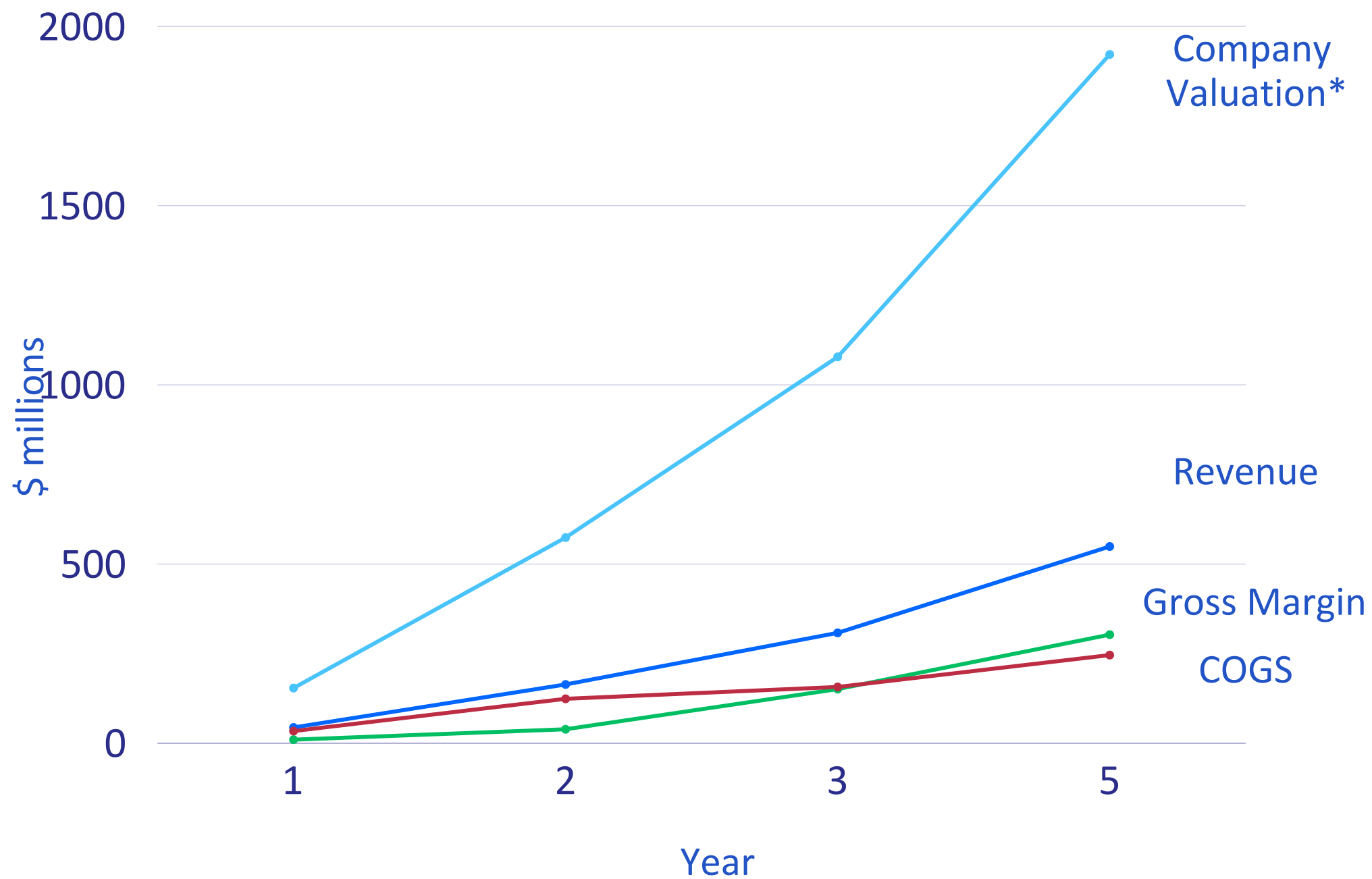
Leverage Australian success, adapt solutions for international markets, and establish strategic partnerships for growth.

06

Leverage government incentives and grants

Leverage government incentives and grants to fully utilise renewable energy support and capital.

FINANCIAL PROJECTIONS



*Finerva: Battery Tech & Energy Storage: 2023 Valuation Multiples

CAGR
+129%

Revenue growth from \$40 million in 2025 to \$480 million by 2028, representing a compound annual growth rate of 129%

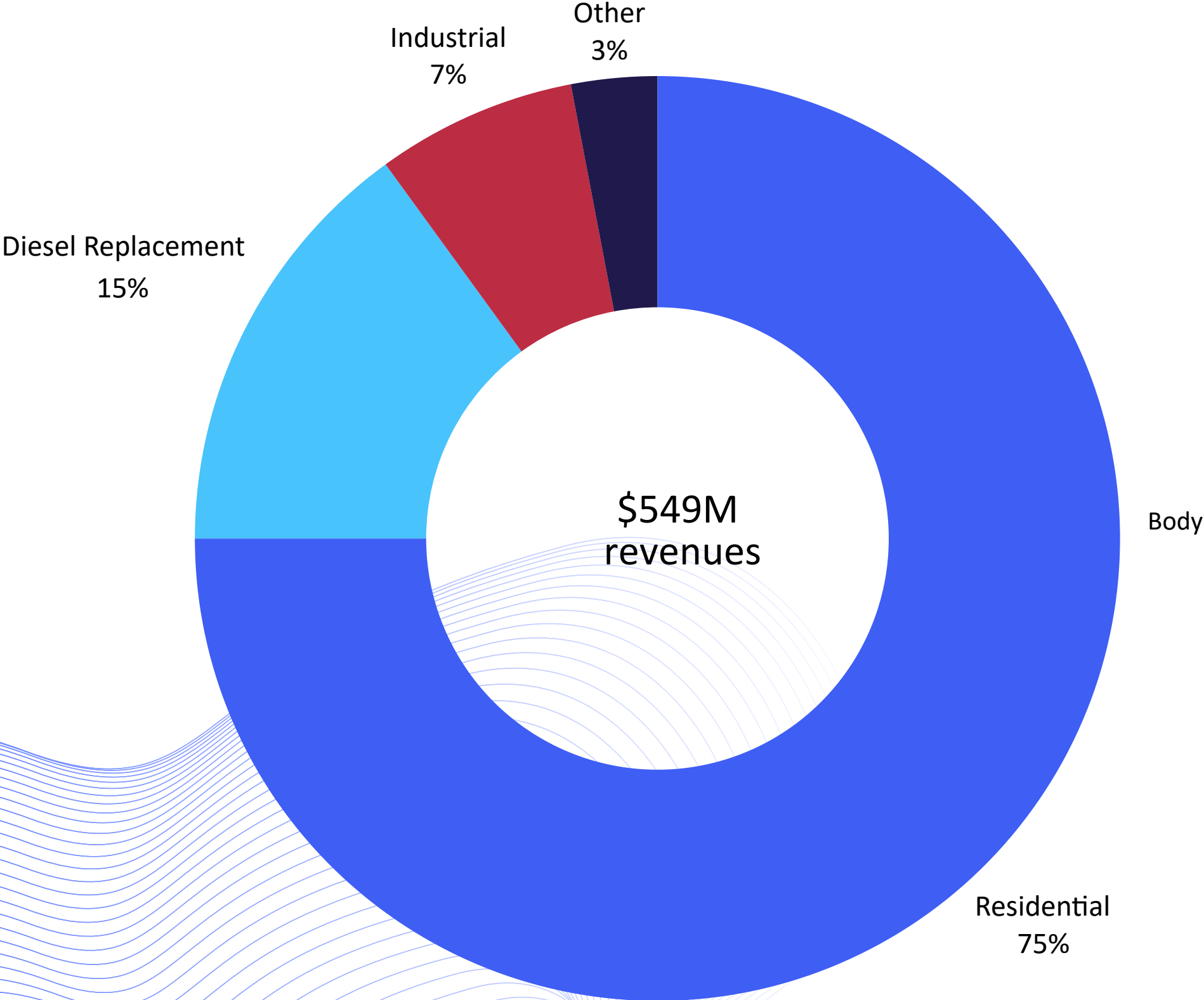
Gross Profit Margin
55%

Forecasted to reach a gross profit margin of 55%, demonstrating production efficiencies.

Company Valuation (Year 5)
\$1.9B

Energy storage and battery technology median EV based on revenue multiples of 3.5x in Q4 2022.

REVENUE BREAKDOWN



The chart breaks down the contribution to revenue of each of the main product lines including residential VRFB, industrial VRFB and Diesel Replacement.

2029 (Year 5)

INVESTMENT OPPORTUNITY



Potential for High Growth Returns

AFB projects significant revenue growth, from \$40 million in 2025 to \$549 million by 2029. This growth trajectory translates into substantial returns for early investors.

Diversified Revenue Streams

AFB's business model includes multiple revenue sources providing more stable and potentially higher long-term returns compared to single-product companies in the sector.

Positive Social and Environmental Impact

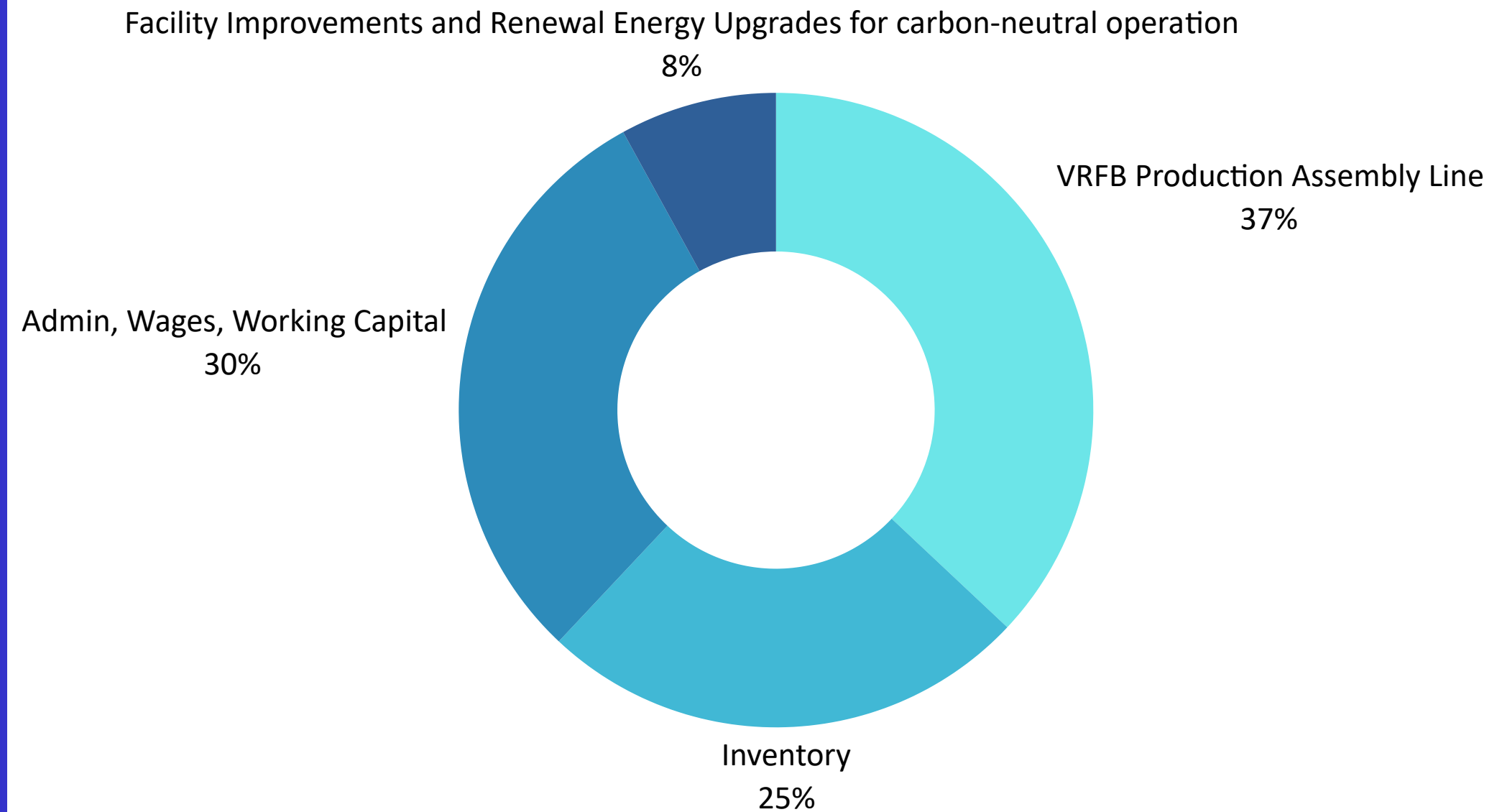
An investment in AFB offers the opportunity to contribute to sustainable energy solutions. The company's products support the transition to renewable energy reducing carbon emissions and increasing energy independence for communities.

USE OF FUNDS

Australian Flow Batteries (AFB) is seeking a **\$5 million investment** to support its growth and operations.

Use of Funds:

- VRFB Production Assembly Line: (\$1.85 million)
- Inventory: 25% (\$1.25 million)
- Administration, Wages, and Working Capital: 30% (\$1.5 million)
- Facility Improvements and renewable energy upgrade for AFB's facility (carbon-neutral operation): 8% (\$400,000)



Use of Funds

THANK YOU

To receive your personal copy of the full information memorandum please contact us.

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