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Australian VANADIUM LIMITED

The Future of Affordable Electrification in Australia

Paydirt Critical Battery Minerals Conference | Perth, Western Australia
April 2026

ASX:**AVL**

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Compliance & Cautionary Forward-looking Statements

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This Presentation may contain certain forward-looking statements with respect to matters including but not limited to the financial condition, results of operations and business of AVL and certain of the plans and objectives of AVL with respect to these items. These forward-looking statements are not historical facts but rather are based on AVL's current expectations, estimates and projections about the industry in which AVL operates and its beliefs and assumptions.

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AVL cautions shareholders and prospective shareholders not to place undue reliance on these forward-looking statements, which relate only to events as of the date on which the statements are made.

ASX Listing Rule 5.23 The information in this announcement relating to mineral resource estimates for the Australian Vanadium Project is extracted from the announcement entitled '39% Increase in High Grade Measured and Indicated Mineral Resource' released to the ASX on 7 May 2024. The relevant announcement is available on the Company's website www.avl.au. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements, and that all material assumptions and technical parameters underpinning the estimates in the original market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the competent person's findings are presented have not been materially modified from the original market announcements.

Early leadership across vanadium supply chain: Positioned for Australia's electrification needs

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	Upstream	Midstream	Downstream
	Vanadium Mining and Processing	**Vanadium Electrolyte Manufacture**	**Utility-scale BESS Solutions**
Asset	Australian Vanadium Project	Electrolyte manufacturing facility	VSUN Energy (100% AVL)
AVL advantage	High-grade project in Tier-1 jurisdiction – WA	Established and operational facility	Cost competitive VFB storage solutions
Status	• Targeting completion of Optimised Feasibility Study (OFS) H2CY2026[1] • Current focus on finalising OFS and remaining approvals, while positioning for offtake and funding	• Successfully deployed AVL electrolyte into operational VFB[2] • Advancing V-NOMAD™, a gigawatt- hour scale solution targeting lowest delivered electrolyte cost for utility scale VFB BESS projects[3]	• Commercial VFB BESS projects and the development of Lumina™ architecture positions VSUN Energy as leader in VFB BESS deployment[4] • VFB project with WA based Horizon Power has exceeded client expectations in hot climate • Pursuing Kalgoorlie VBESS Project[5]

1. See ASX announcement dated 19 February 2026, '*OFS enhancement to address evolving high purity demand*'
2. See ASX announcement dated 16 September 2024, '*Electrolyte Successfully Deployed in VFB for Horizon Power*'
3. See ASX announcement dated 31 March 2026, '*Development of vanadium electrolyte production technology*'
4. See ASX announcement dated 6 November 2024, '*Realising AVL's Utility-Scale Vanadium Flow Battery Strategy*'
5. See ASX announcement dated 2 February 2026 '*AVL's integrated capability underpins Kalgoorlie VBESS EOI submission*'

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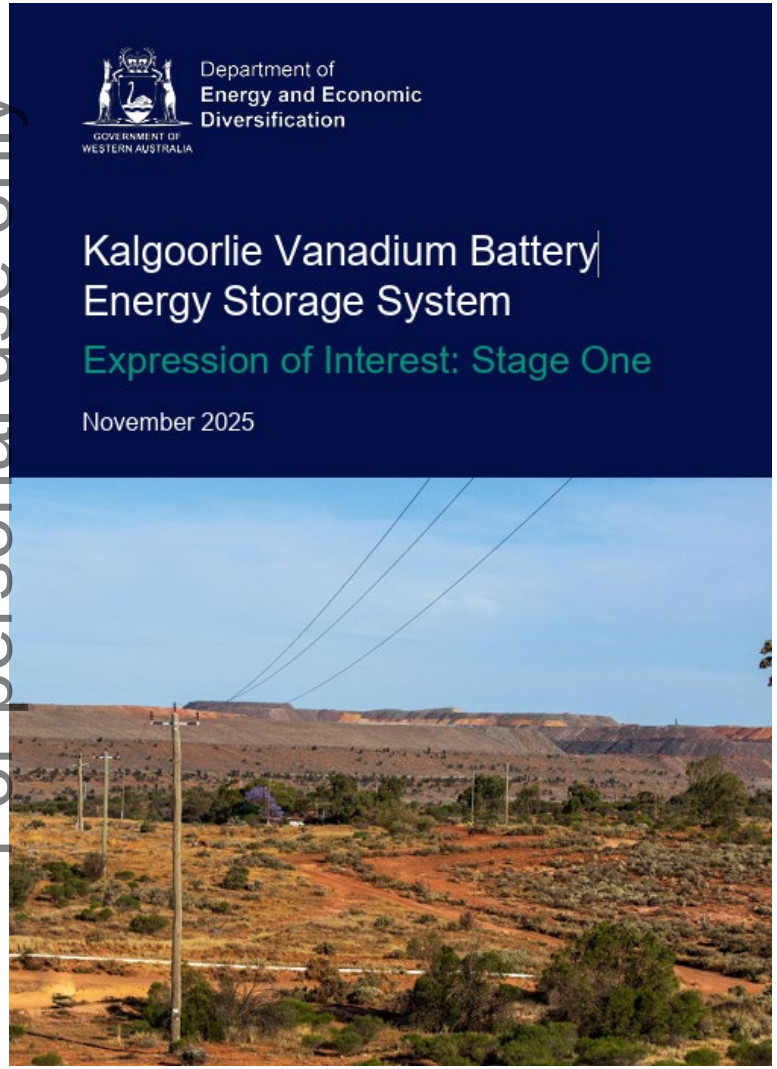

The Western Australian Government's $150 million support for the Kalgoorlie VBESS could unlock a local supply chain maximising the economic value add for the State by:

1. Boosting energy reliability in the Goldfields

2. Developing local vanadium supply chains and manufacturing

3. Creating jobs and diversifying the regional economy

Premier of Western Australia, Hon Roger Cook MLA:

"I want this project to be a catalyst to drive a new vanadium mining, processing and export industry for WA - to make more things here, diversify the economy and create the jobs of the future."

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Why VFBs are the right choice for the Kalgoorlie VBESS project

STABLE & VERSATILE

Minimal degradation and full depth of discharge supports project economics

SAFE

Aqueous chemistry with no thermal runaway risk. Ideal for deployment near critical infrastructure, such as data centres, and in hot climates

VALIDATED AT SCALE

Nearly 20-year history of grid connected VFB BESS projects globally with 6GWh operational and single projects now exceeding 1GWh

LONG LIFE

VFBs deliver a 30+ year infrastructure asset

HIGH LOCAL CONTENT

VFBs solve for local economic benefits while aligning strongly with government support mechanisms

CIRCULAR

Electrolyte is not consumed and retains value over time, supporting practical and economical recycle and reuse pathways

Kalgoorlie sits at the end of a long transmission corridor. The region needs long-duration storage that is thermally stable, non-degrading, and built to last. Vanadium flow batteries are the right technology for this use case.

Note: See ASX announcement dated 9 May 2025 '*Project Lumina confirms improved competitiveness*'

AVL's integrated capability can deliver for Western Australia

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AVL has submitted a proposal through Stage 1 of the WA Government's Kalgoorlie VBESS process[1]

Local content and regional job creation: AVL's Lumina™ architecture is a VFB solution engineered for competitiveness and maximisation of WA participation across the full value chain

Large Western Australian vanadium resource base: AVL's Australian Vanadium Project provides opportunity to unlock WA based high purity vanadium oxide production

The only electrolyte producer in WA: Value creation through AVL's vanadium electrolyte production capability in Western Australia from vanadium oxides

Strong industry support: Collaboration with leaders spanning technology (**Sumitomo Electric**), delivery (**Sedgman** and others) and financial (**RCF** and others)

Optionality: AVL's Lumina™ architecture provides a low-cost ability to add power and duration, allowing the Kalgoorlie VBESS to meet future requirements

Rendering of AVL's proposal for a 50MW/500MWh VFB BESS in Kalgoorlie.

WA Government's indicated schedule targets:
- Stage 2 launch end April 2026
- Stage 2 submission June 2026
- Negotiations with preferred proponent expected mid-2026

1. See ASX announcement dated 2 February 2026 '*AVL's integrated capability underpins Kalgoorlie VBESS EOI submission*'

AVL's unique Lumina™ VFB BESS architecture is engineered to maximise local WA content

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Local content opportunities in AVL's proposed solution for a 50MW/500MWh VFB BESS

Pumps, Tanks, Pipework
Off the shelf design allows for utilisation of local supply chain

EPCM & Other
Utilisation & leverage of WA based EPC partners

Civils
Utilisation of local contractors and supply chain

Electrolyte
AVL has established commercial electrolyte production

Cell stack
Potential to establish local manufacturing of cell stack technology in Australia

Inverter and Power control system
Limited manufacturing in Australia - requirement to purchase offshore

Western Australian content

Potential future local content

Note: local content is indicative only and will depend on project specific requirements

AVL's partners for delivery of the Kalgoorlie VBESS

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Proven electrolyte capability

AVL has proven local electrolyte manufacturing capability with electrolyte deployed in existing VFB BESS in hot climate Western Australian applications

World leading technology partner

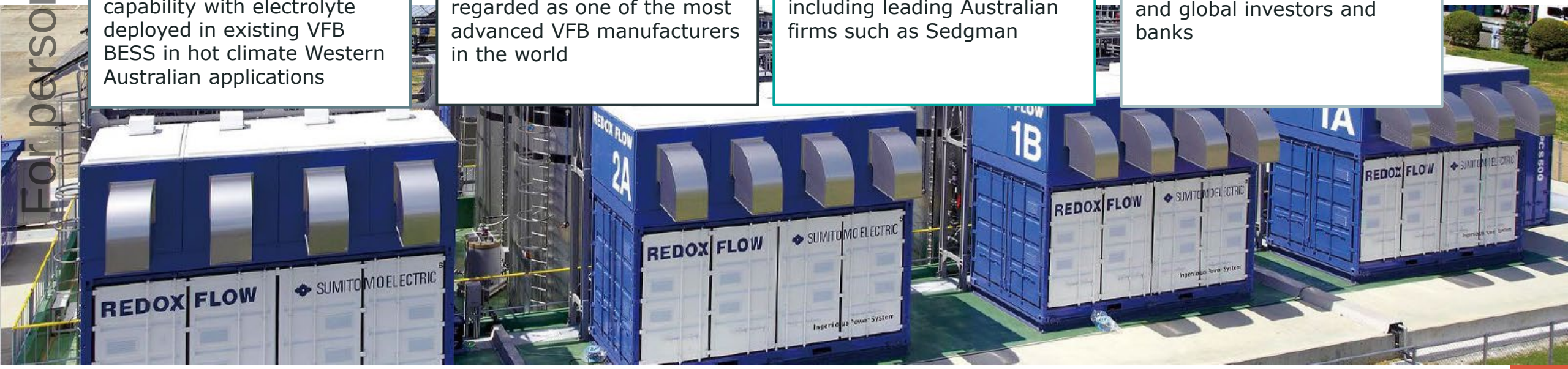
Exclusive relationship[1] with Sumitomo Electric, widely regarded as one of the most advanced VFB manufacturers in the world

Leading project delivery collaboration

Strong engagement with a range of delivery partners including leading Australian firms such as Sedgman

Strong funding support

Letters of support from a range of leading Australian and global investors and banks



1. See ASX announcement dated 16 February 2026 '*Exclusive agreement with Sumitomo Electric for Kalgoorlie VBESS Project*'

VFB BESS cost stack continues to benefit from innovations. AVL's focus is on near-term deliverable, utility scale cost efficiencies

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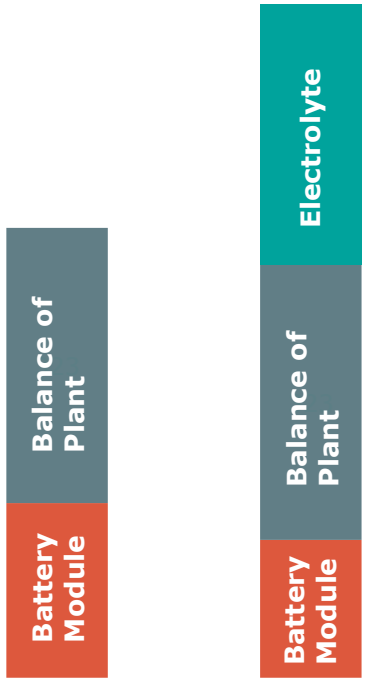
Initial Capex ($/MWh)



LFP BESS[1] **VFB BESS[2]**

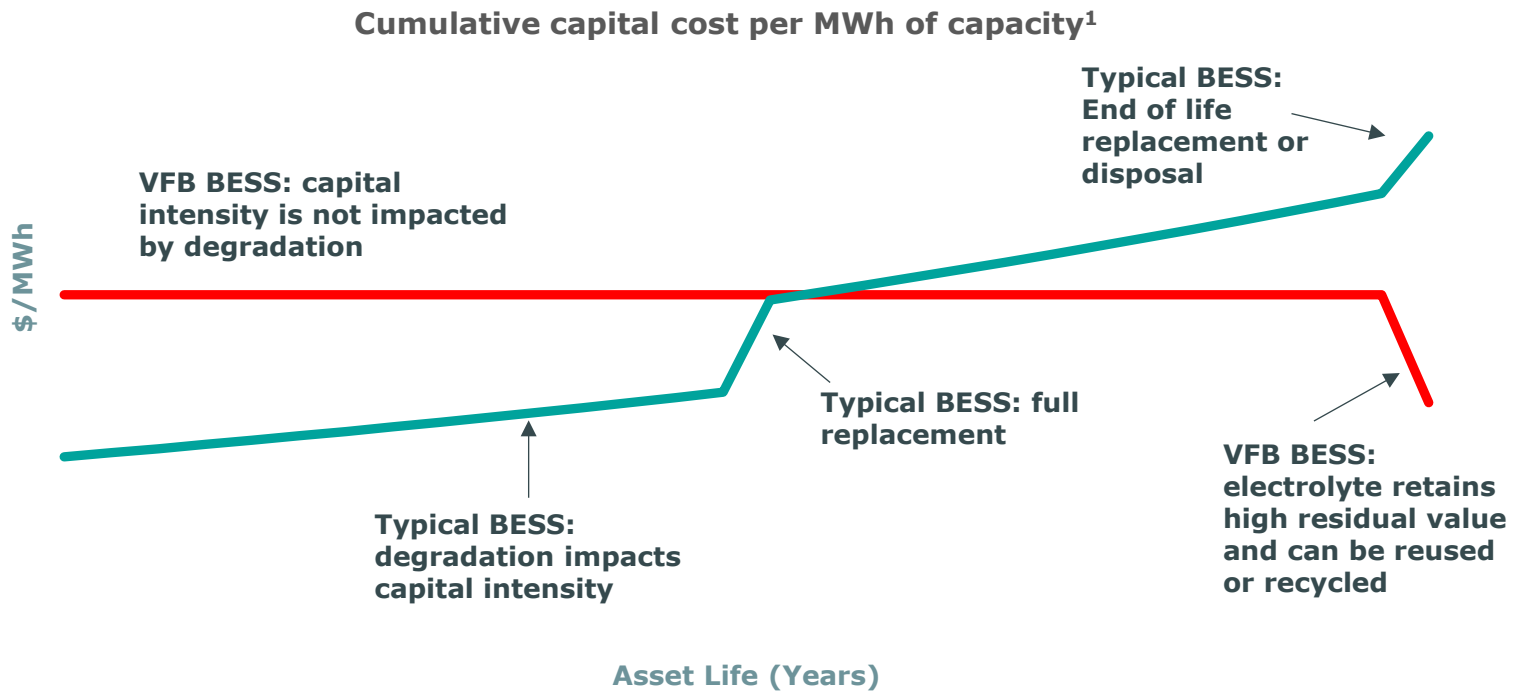
- **Electrolyte leasing:** now deployed at utility scale in China[3], converting 40-50% of VFB capex into opex[4] – leasing model could be imported to Australia
- **AVL's V-NOMAD™ platform:** a near term pathway targeting lowest delivered cost of electrolyte at utility scale[5]

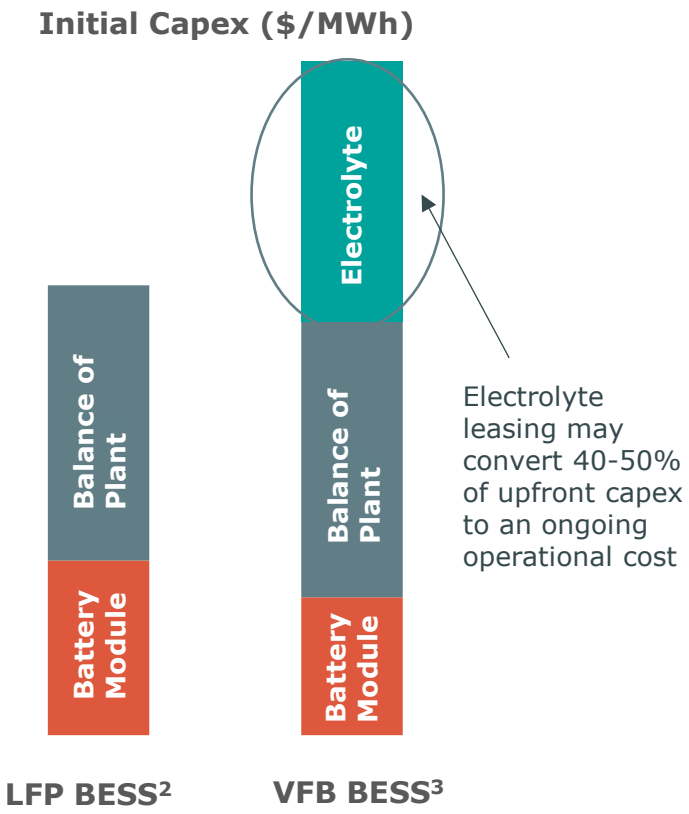
- **AVL's Lumina™ architecture:** purposefully designed to achieve lowest cost deployment for utility scale VFB BESS in Australia[6]
- **Balance of plant (BoP):** commonality with LFP BESS means LFP BESS BoP innovation has potential to translate into VFB BESS BoP innovation

- **Economies of scale:** OEMs continue to scale production, enabling cost reductions
- **Stack Innovation:** OEMs continue to validate higher energy density solutions

1. Economic Regulation Authority Analysis, March 2026: https://www.erawa.com.au/sites/default/files/2026-benchmark-reserve-capacity-prices-2028-29-capacity-year-final-determination.PDF
2. AVL - Internal capital cost estimate January 2026, +/-30% – Utility Scale VFB BESS.
3. RKP International – Unlock the potential – financial benefits, scalability, and success stories of vanadium electrolyte leasing
4. World Bank – Circular business model for vanadium use in energy storage https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099020324185517458
5. See ASX announcement dated 31 March 2026, '*Development of vanadium electrolyte production technology*'
6. See ASX announcement dated 6 November 2024, '*Realising AVL's Utility-Scale Vanadium Flow Battery Strategy*'

Electrolyte leasing - moving capex to opex





Offering electrolyte leasing can change the decision framework for procurement teams where dominant focus may be upfront capital cost

1. Based on VSUN Energy internal modelling with supporting data +/-30%.
2. Economic Regulation Authority Analysis, March 2026: https://www.erawa.com.au/sites/default/files/2026-benchmark-reserve-capacity-prices-2028-29-capacity-year-final-determination.PDF
3. AVL - Internal capital cost estimate January 2026, +/-30% – Utility Scale VFB BESS

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AVL provides solutions to achieve Australian electrification

Compelling position for Kalgoorlie VBESS

High local content, electrolyte capability, leading technology partner Sumitomo Electric, highly flexible architecture

Strong universe of strategic participants

Support from a universe of technical, financial and deployment participants de-risks project delivery capability

Integrated vanadium value chain

Upstream mine, midstream electrolyte, downstream VFB BESS deployment. End to end sovereign supply chain

Growing opportunity pipeline

Ability to deliver beyond Kalgoorlie VBESS targeting hot climates, data centres and grid scale deployment

Delivering a distinctive business model

Electrolyte leasing could reframe and accelerate adoption of VFBs as affordable infrastructure to enable Australia's electrification

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Vanadium – a critical mineral and energy transition metal

- Exceptional strength-to-weight performance means vanadium is commonly used to strengthen steel and titanium alloys
- Addition of vanadium creates high strength steel reducing the amount of steel required in construction – improving steel's carbon footprint
- Can raise melting points, making vanadium a critical mineral in high-temperature tool steels, jet engines and nuclear reactor components
- Unique chemical properties result in vanadium existing in four stable oxidation states in solution – making it suitable for use in vanadium flow batteries
- In military use, vanadium is critical to, and high risk in 5 of 9 NATO classifications, with vanadium supply dominated by China and Russia

VFBs' operational advantage creates competitive advantage in key emerging markets

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VFBs' advantages over established BESS technology – including duration, no thermal runaway risk, minimal degradation and full depth of discharge – positions this technology to penetrate key emerging BESS use cases

Data centres

Data centers' requirement for instantaneous back up power, over multiple cycles per day, with minimal degradation and high reliability provide a huge growth market for VFBs

No thermal runaway risk and ability to provide +12hr of backup is expected to drive growing market share in a rapidly emerging sector

Remote Mine sites

Rio Tinto estimate they will require 600–700MW of renewable energy to displace the majority of gas use across their Pilbara power network – supported by large scale BESS[1]

Hot climates

Saudi Arabia plans to deploy 48GWh of battery storage by 2030 to support a vision of securing 50% of its electricity from renewables[2]

VFBs are ideal for hot climates given their ability to cycle efficiently at higher temperatures and flow battery chemistry presents no thermal runaway risk

1. www.riotinto.com/en/news/stories/pilbara-renewable
2. www.energytrend.com/news/20250110-48972.html

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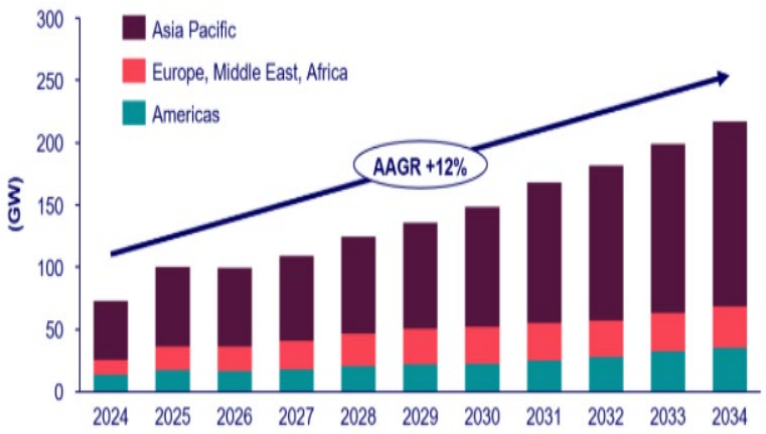
BESS deployment continues to grow – VFBs gaining market share

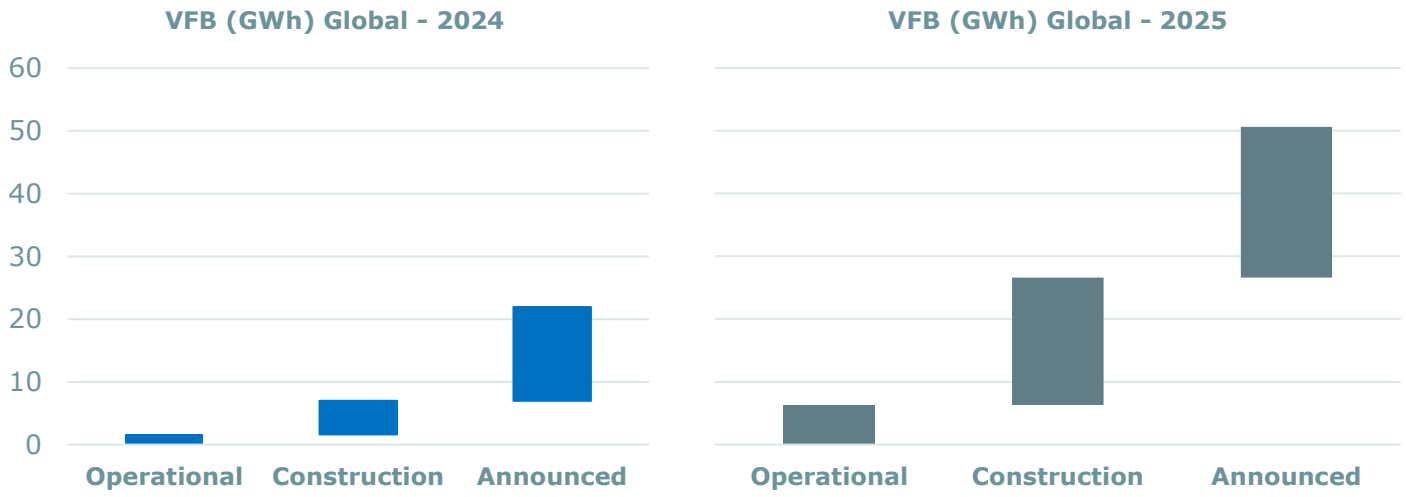
- Increasing renewable power generation continues to drive BESS demand
- Forecast 12% CAGR over next decade
- Asia Pacific largest demand area

Global battery storage annual added capacity, 2024-2034



Source: Wood Mackenzie Lens Storage

- Over 6GWh of VFBs in operation globally
- Further 44GWh of projects either in construction or announced
- Increasing VFB deployment is expected to drive reduction in manufacturing cost, enhancing competitiveness



Source: Vanitec

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Case study – world's first 1GWh VFB

- The world's first 1GWh VFB was grid connected in May 2025
- The battery system can deliver five hours of continuous output to smooth out supply of abundant solar and wind
- The development supports Xinjiang's wider goal of becoming a national clean-energy centre, with plans to add more than 20 GW of new energy storage to the grid by 2025

Image: WeChat, Xinjiang local government

Source: ess-news.com

Global policy around long duration energy storage is set to supercharge VFB adoption

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Governments are engaging a number of policies to support long duration energy storage. Key mechanism include:

- Revenue underwrites: UK Cap-and-Floor, AU CIS/LTESA, Italy MACSE — secure long-term floor revenues
- Tax credits and grants: US IRA, EU Innovation Fund, Australian SIVs (ARENA, NRFC, CEFC, NAIF) — capital cost and accelerate projects
- Availability Payments & Capacity Markets: Chile, India, Italy — reward longer duration (>8h) capacity

Stable policy + revenue certainty = strong investor confidence

www.ofgem.gov.uk, www.energyco.nsw.gov.au, www.dcceew.gov.au/energy/renewable/capacity-investment-scheme, www.climate.ec.europa.eu/, www.ess-news.com/2025/10/06/jinko-italys-macse-auction-a-global-test-a-momentous-change

Vanadium electrolyte is not consumed. It earns economic rent.

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Closed loop business model for energy storage

In a VFB, the vanadium is retained, unchanged, and can be recovered or reused at end of VFB asset life

25+

Year electrolyte asset life

Manufactured electrolyte leased back to BESS operators

Electrolyte can be leased for the life of a project, potentially improving project value and opening new opportunities for investors to align with the energy transition

100%

Vanadium retained at end of project

Electrolyte leasing: a low cost-of-capital solution

Electrolyte is a stable, long-duration asset that generates recurring revenue with residual value, potentially attractive to low-cost-of-capital industry funds and government agencies

~40-50%

Upfront capital cost reduction[1]

1. World Bank - Circular business model for vanadium use in energy storage https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099020324185517458

A single utility scale VFB BESS unlocks globally significant demand for vanadium

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50MW/ 500MWh VFB BESS

~

4kt

V_2O_5 demand[1]

~

c.1.7%

Of global V_2O_5 supply[2]

1. AVL internal, utility scale VFB BESS modelling
2. TTP Squared, Inc – 2024 global vanadium market size 133,000 metric tonnes vanadium (equivalent to 237kt V_2O_5)

The world class Australian Vanadium Project is at the core of our vertical integration strategy

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- A world class asset located in Western Australia, a Tier-1 mining jurisdiction
- Simple open pit mining with standard magnetite concentrator process
- Global vanadium MRE of 395.4Mt at 0.77% V_2O_5 including 104.5Mt at 1.12% V_2O_5 classified as Measured or Indicated[1]
- Optimised Feasibility Study underway, aimed at creating project with superior economics
- Current focus on finalising remaining approvals, while securing offtake and funding

1. See ASX announcements dated 7 May 2024, '*39% increase in HG Measured and Indicated Mineral Resource*', 2 July 2024, '*Completion of First Phase of Optimised Feasibility Study*' 19 February 2026, '*OFS enhancement to address evolving high purity demand*'

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Mineral Resource Estimate

Zone	Category	Mt	V_2O_5 %	Fe %	TiO_2 %	SiO_2 %	Al_2O_3 %
HG	Measured	30.6	1.14	46.3	12.9	7.4	6.2
	Indicated	74.8	1.11	47.5	12.6	7.0	5.7
	Inferred	67.9	1.06	45.3	12.1	9.0	6.6
	Subtotal	**173.2**	**1.09**	**46.5**	**12.5**	**7.8**	**6.1**
LG	Indicated	61.8	0.55	26.1	7.1	26.6	16.3
	Inferred	142.5	0.48	24.9	6.6	28.9	15.2
	Subtotal	**204.3**	**0.50**	**25.3**	**6.8**	**28.2**	**15.5**
Transported	Inferred	17.9	0.65	31.0	7.3	24.1	14.4
	Subtotal	**17.9**	**0.65**	**31.0**	**7.3**	**24.1**	**14.4**
Total	Measured	30.6	1.13	46.3	12.9	7.4	6.2
	Indicated	136.6	0.85	37.8	10.1	15.8	10.5
	Inferred	228.2	0.66	31.4	8.3	22.6	12.6
	Subtotal	**395.4**	**0.77**	**34.8**	**9.3**	**19.1**	**11.4**

Note: Totals may not add up due to rounding

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