

ASX ANNOUNCEMENT

8 JANUARY 2024

## HORIZON POWER VANADIUM FLOW BATTERY ARRIVES IN WA

### KEY POINTS

- Vanadium flow battery has arrived in Fremantle, Western Australia
- Battery destined for Horizon Power site in Kununurra, Western Australia
- Factory Acceptance Testing to be undertaken in conjunction with Horizon Power

Australian Vanadium Limited (ASX: AVL, “the Company” or “AVL”) is pleased to provide an update on the progress of the vanadium flow battery (VFB) project being undertaken by its 100% owned subsidiary VSUN Energy for Western Australian utility Horizon Power.

AVL’s Chief Executive Officer, Graham Arvidson comments, “*The arrival of the vanadium flow battery for VSUN Energy’s Horizon Power project demonstrates another key step in AVL’s ‘pit to battery’ strategy. We are looking forward to working with Horizon Power to successfully deliver this project, allowing the utility to benefit from the role that VFBs can play in enabling decarbonisation and providing reliable, low cost, long duration grid energy storage, with the potential for high levels of local content when coupled with AVL’s WA-made vanadium electrolyte.*”

Horizon Power entered into a contract with VSUN Energy in July 2023 to purchase its first VFB. The battery will be used for a long duration energy storage pilot in Kununurra, northern Western Australia.<sup>1</sup>

The VFB has been supplied by leading global manufacturer Invinity Energy Systems plc (AIM: IES). The battery has now arrived in Fremantle, Western Australia and will be transported to AVL’s vanadium electrolyte manufacturing facility for factory acceptance testing (FAT).

<sup>1</sup> See ASX announcement dated 28 July 2023 ‘Horizon Power to Purchase VFB for Long Duration Energy Storage Pilot’



**Figure 1 - Vanadium Flow Battery at Fremantle Port**

The 220kWh battery, which can deliver up to 78kW of power, will undertake FAT in early 2024. During the FAT process, VSUN Energy will host a number of industry participants to view the battery. Tests of the VFB will be held in conjunction with Horizon Power and will demonstrate a variety of use cases. After final project components are received by Horizon Power, the battery will be deployed to a site in Kununurra for VSUN Energy to install and commission.

For further information, please contact:

**Graham Arvidson, CEO**

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*This announcement has been approved in accordance with the Company's published continuous disclosure policy and has been approved by the Board.*

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## ABOUT AUSTRALIAN VANADIUM LTD

AVL is a resource company focused on vanadium, seeking to offer investors a unique exposure to all aspects of the vanadium value chain – from resource through to steel and energy storage opportunities. AVL is advancing the development of its world-class Australian Vanadium Project at Gabanintha. The Australian Vanadium Project is one of the most advanced vanadium projects being developed globally, with 239Mt at 0.73% vanadium pentoxide ( $V_2O_5$ ), containing a high-grade zone of 95.6Mt at 1.07%  $V_2O_5$  and an Ore Reserve of 30.9Mt at 1.09%  $V_2O_5$  comprised of a Proved Reserve of 5Mt at 1.11%  $V_2O_5$  and a Probable Reserve of 20.4Mt at 1.07%  $V_2O_5$ , reported in compliance with the JORC Code 2012 (see ASX announcement dated 1<sup>st</sup> November 2021 '*Mineral Resource Update at the Australian Vanadium Project*' and ASX announcement dated 6<sup>th</sup> April 2022 '*Bankable Feasibility Study for the Australian Vanadium Project*').

VSUN Energy is AVL's 100% owned renewable energy and energy storage subsidiary which is focused on developing the Australian market for vanadium flow batteries for long duration energy storage. VSUN Energy was established in 2016 and is widely respected for its VFB expertise. AVL's vertical integration strategy incorporates processing vanadium to high purity, manufacturing vanadium electrolyte and working with VSUN Energy as it develops projects based on renewable energy generation and VFB energy storage.

## APPENDIX 1

The Australian Vanadium Project – Mineral Resource estimate by domain and resource classification using a nominal 0.4% V<sub>2</sub>O<sub>5</sub> wireframed cut-off for low-grade and nominal 0.7% V<sub>2</sub>O<sub>5</sub> wireframed cut-off for high-grade (total numbers may not add up due to rounding).

Zone	Category	Mt	V <sub>2</sub> O <sub>5</sub> %	Fe %	TiO <sub>2</sub> %	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	LOI %
HG	Measured	11.3	1.14	43.8	13.0	9.2	7.5	3.7
	Indicated	27.5	1.10	45.4	12.5	8.5	6.5	2.9
	Inferred	56.8	1.04	44.6	11.9	9.4	6.9	3.3
	<b>Subtotal</b>	<b>95.6</b>	<b>1.07</b>	<b>44.7</b>	<b>12.2</b>	<b>9.1</b>	<b>6.8</b>	<b>3.2</b>
LG	Indicated	54.9	0.50	24.9	6.8	27.6	17.1	7.9
	Inferred	73.6	0.48	25.0	6.4	28.7	15.4	6.6
	<b>Subtotal</b>	<b>128.5</b>	<b>0.49</b>	<b>24.9</b>	<b>6.6</b>	<b>28.2</b>	<b>16.1</b>	<b>7.2</b>
Transported	Inferred	14.9	0.66	29.0	7.8	24.5	15.1	7.8
	<b>Subtotal</b>	<b>14.9</b>	<b>0.66</b>	<b>29.0</b>	<b>7.8</b>	<b>24.5</b>	<b>15.1</b>	<b>7.8</b>
Total	Measured	11.3	1.14	43.8	13.0	9.2	7.5	3.7
	Indicated	82.4	0.70	31.7	8.7	21.2	13.5	6.2
	Inferred	145.3	0.71	33.0	8.7	20.7	12.0	5.4
	<b>Subtotal</b>	<b>239.0</b>	<b>0.73</b>	<b>33.1</b>	<b>8.9</b>	<b>20.4</b>	<b>12.3</b>	<b>5.6</b>

The Australian Vanadium Project - Ore Reserve Statement as at April 2022, at a cut-off grade of 0.7% V<sub>2</sub>O<sub>5</sub>.

Ore Reserve	Mt	V <sub>2</sub> O <sub>5</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	TiO <sub>2</sub> %	SiO <sub>2</sub> %	LOI%	V <sub>2</sub> O <sub>5</sub> production kt	Ore Reserve	Mt
Proved	10.5	1.11	61.6	12.8	9.5	3.7	70.9	Waste	238.5
Probable	20.4	1.07	63.4	12.2	9.2	3.0	152.9	Total Material	269.4
<b>Total Ore</b>	<b>30.9</b>	<b>1.09</b>	<b>62.8</b>	<b>12.4</b>	<b>9.3</b>	<b>3.2</b>	<b>223.8</b>	Strip Ratio	7.7

## ASX CHAPTER 5 COMPLIANCE AND CAUTIONARY AND FORWARD LOOKING STATEMENTS

### **ASX Listing Rules 5.19 and 5.23**

#### **ASX Listing Rule 5.19**

The information in this announcement relating to production targets, or forecast financial information derived from a production target, is extracted from the announcement entitled 'Bankable Feasibility Study for the Australian Vanadium Project' released to the ASX on 6<sup>th</sup> April 2022 which is available on the Company's website [www.australianvanadium.com.au](http://www.australianvanadium.com.au).

The Company confirms that all material assumptions underpinning the production target, or the forecast financial information derived from a production target, in the original market announcement continue to apply and have not materially changed.

#### **ASX Listing Rule 5.23**

The information in this announcement relating to exploration results and mineral resource and ore reserve estimates for the Australian Vanadium Project is extracted from the announcement entitled 'Bankable Feasibility Study for the Australian Vanadium Project' released to the ASX on 6<sup>th</sup> April 2022 which is available on the Company's website [www.australianvanadium.com.au](http://www.australianvanadium.com.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 announcement, 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 announcement.

### **Forward-Looking Statements**

This release 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.

Words such as "anticipates," "considers," "expects," "intends," "plans," "believes," "seeks," "estimates", "guidance" and similar expressions are intended to identify forward looking statements and should be considered an at-risk statement. Such statements are subject to certain risks and uncertainties, particularly those risks or uncertainties inherent in the industry in which AVL operates.

These statements are not guarantees of future performance and are subject to known and unknown

risks, uncertainties, and other factors, some of which are beyond the control of AVL, are difficult to predict and could cause actual results to differ materially from those expressed or forecasted in the forward-looking statements. Such risks include, but are not limited to resource risk, metal price volatility, currency fluctuations, increased production costs and variances in ore grade or recovery rates from those assumed in mining plans, as well as political and operational risks in the countries and states in which we sell our product to, and government regulation and judicial outcomes. For more detailed discussion of such risks and other factors, see the Company's Annual Reports, as well as the Company's other filings.

AVL cautions shareholders and prospective shareholders not to place undue reliance on these forward-looking statements, which reflect the view of AVL only as of the date of this release.

The forward-looking statements made in this announcement relate only to events as of the date on which the statements are made.

AVL will not undertake any obligation to release publicly any revisions or updates to these forward-looking statements to reflect events, circumstances or unanticipated events occurring after the date of this announcement except as required by law or by any appropriate regulatory authority.