

LARGO PHYSICAL VANADIUM Invest in a greener future

Investor Presentation June 2023

TSX.V: VAND, OTCQX: VANAF www.lpvanadium.com

DISCLAIMERS

DISCLAIMER

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This presentation contains forward-looking information under applicable securities laws, some of which may be considered "financial outlook" for the purposes of application Canadian securities legislation ("forward-looking statements"). Forward-looking statements in this presentation include, but are not limited to, statements with respect to: the rising demand for physical vanadium, VRFBs, and stationary energy storage; the sufficiency of any rental payments to adequately offset administrative and corporate expenses; projections concerning supply, production and consumption of vanadium, including without limitation the probability of a vanadium supply deficit and the probability and impact of new vanadium suppliers entering the market; the effect of green initiatives, including, without limitation, decarbonization and new economy use cases, and infrastructure spending, on the demand for vanadium; the effect of vanadium based improvements to lithium-ion battery technology; the ability to allocate operating costs in an advantageous manner; the availability of rental vanadium contracts with VRFB customers on terms acceptable to VAND; sufficient investor interest in direct exposure to physical vanadium generally, and VAND specifically; VAND's ability to enter into key agreements on the terms set out herein; the ability to successfully market and attract investment in VAND; obtaining necessary stock exchange approvals; the effect of vanadium rental contracts on VRFB cost; the effect of VAND on the liquidity of vanadium market;

the increased adoption of VRFB technology generally; and global interest in and uptake of green products containing vanadium. Forward-looking statements pertaining to Largo Inc. ("Largo") which may impact VAND in this presentation include, but are not limited to, statements with respect to its ability to operate and grow its VRFB business; its ability to direct its vanadium supply toward VRFBs; its production and manufacturing capacity; and its ability to market and sell its VCHARGE± battery system on specification and at a competitive price.

Forward-looking statements can be identified by the use of forward-looking terminology such as "plans", "expects" or "does not expect", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates" or "does not anticipate", or "believes", or variations of such words and phrases or statements that certain actions, events or results "may", "could", "would", "might" or "will be taken", "occur" or "be achieved". All information contained in this news release, other than statements of current and historical fact, is forward looking information. Forward-looking statements are subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of VAND or Largo to be materially different from those expressed or implied by such forward-looking statements. Forward-looking statements are based on the opinions and estimates of management as of the date such statements are made. Although management of VAND has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking statements, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements. VAND and Largo do not undertake to update any forward-looking statements, except in accordance with applicable securities laws.

INVESTMENT SUMMARY

Largo Physical Vanadium Corp. (TSX.V: VAND, OTCQX: VANAF) is a **vanadium holding company** that purchases and holds physical vanadium



Physical ownership of vanadium provides direct exposure to vanadium price without exploration, operational, or financing risk



Vanadium is essential to steel and energy decarbonization. LPV provides unique opportunity to actively power green revolution.



Vanadium can be stored in vanadium flow batteries generating storage revenue rather than incurring storage fees



Expected reduced administration expenses with rental payments received from battery customers and to enable the energy transition



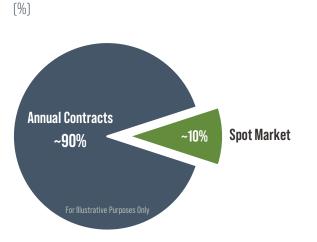


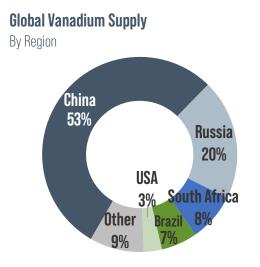


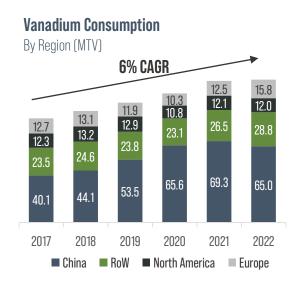
VANADIUM MARKET OVERVIEW

- Total market size of ~\$3.6 billion at \$8/lb V₂O₅;
 Vast majority transacts on annual contracts;
- Inelastic Supply: ~70% of vanadium is byproduct of steel production using blast furnaces and lowquality iron ore.
- Small spot market (~\$20mm per month)

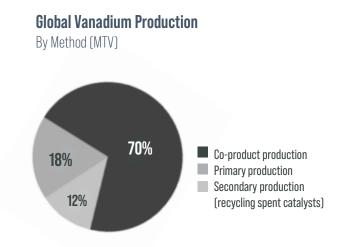
Vanadium Market Sales Distribution





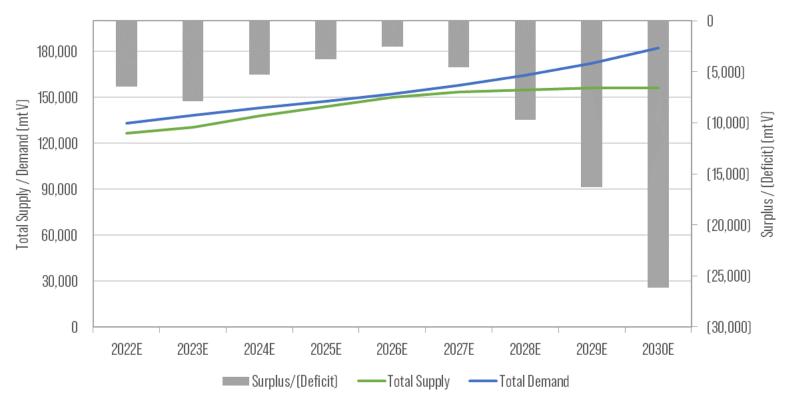


Global Vanadium Demand By Region 88.8% 2.8% 4.0% 4.4% Steel alloy (rebar) Aerospace alloy Chemical catalyst



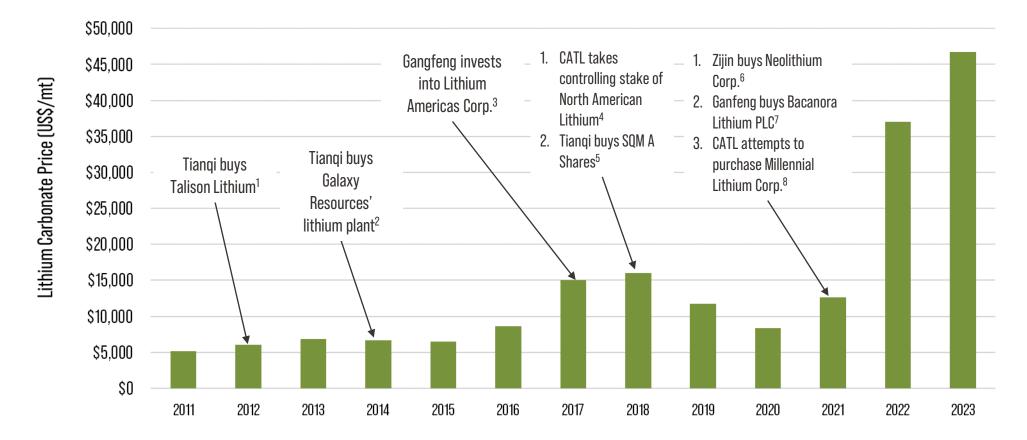
CURRENT SUPPLY DEFICIT TO PERSIST

- Difficult, capital intensive and lengthy to bring new vanadium to market; Largo's Maracás Menchen Mine is only new vanadium mine in over ~30 years
- Strong increase in demand expected from Long Duration Energy Storage applications. Batteries are the 2nd largest vanadium application globally.



Projected Vanadium Supply/Demand Balance

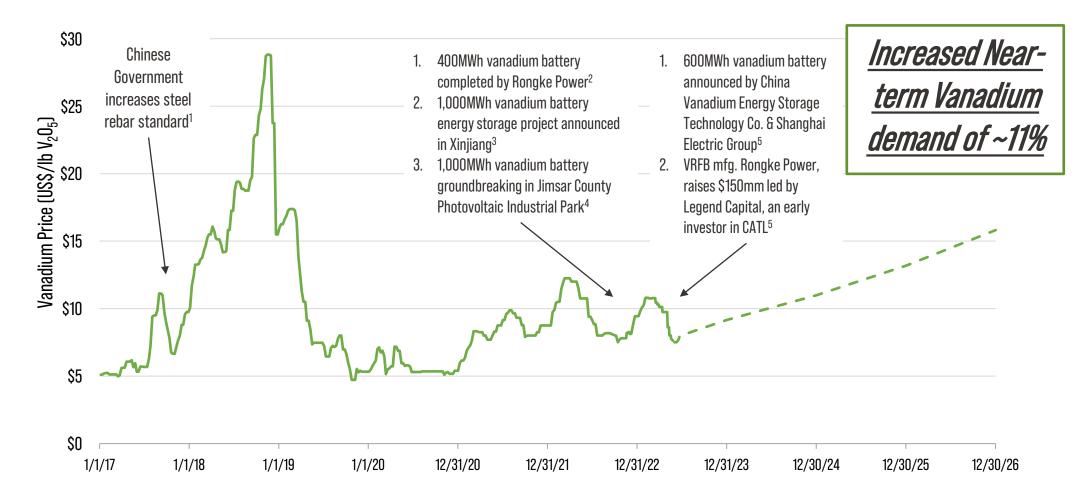
CHINA LED THE LITHIUM BOOM BEFORE THE PRICE SPIKE



Source: Source: Statista, Benchmark

- 1. <u>https://www.prnewswire.com/news-releases/chengdu-tianqi-agrees-to-acquire-talison-lithium-511341741.htr</u>
- 2. https://www.proactiveinvestors.com.au/companies/news/154757/galaxy-resources-to-sell-jiangsu-lithium-carbonate-plant-to-sichuan-tiangi-54604.html
- 3. https://www.lithiumamericas.com/news/lithium-americas-closes-us172-million-strategic-financing-with-ganfeng-lithium
- 4. <u>https://www.ft.com/content/4a59e8d0-261f-11e8-b27e-cc62a39d57a0</u>
- 5. https://www.nutrien.com/investors/news-releases/2018-tiangi-lithium-agrees-purchase-nutriens-sqm-share-investment
- 6. https://www.newswire.ca/news-releases/zijin-mining-to-acquire-neo-lithium-corp-in-all-cash-offer-852178076.ht
- https://www.nasdaq.com/articles/chinas-ganfeng-agrees-takeover-of-bacanora-lithium-in-%24264.5-mln-deal-2021-05-06
- 8. https://www.cnbc.com/2021/09/29/chinese-battery-maker-catl-to-acquire-canadas-millennial-lithium.html

CHINA NOW LEADING THE WAY IN VANADIUM



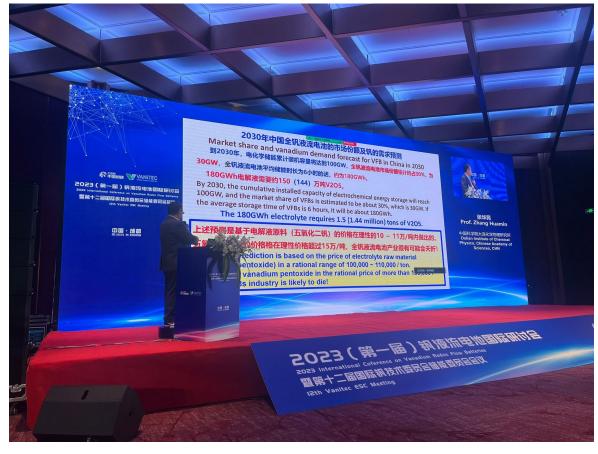
Source

- 1. https://vanitec.org/latest-from-vanitec/article/vanitec-applauds-new-stricter-chinese-rebar-standa
- 2. https://www.pv-magazine.com/2022/09/29/china-connects-worlds-largest-redox-flow-battery-system-to-grid/
- 3. https://www.seetao.com/details/183647.html
- <u>http://m.solarzoom.com/marticle/170196</u>



POTENTIAL FOR 100% INCREASE IN ANNUAL DEMAND

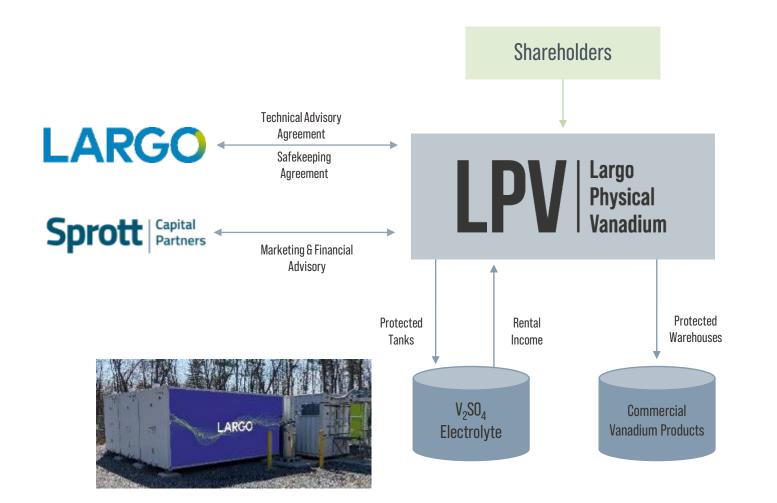
Massive Growth Declared at Industry Conference: March 2023



- Expects cumulative 180 GWh of Vanadium Redox Flow Battery (VRFB) installation by 2030, requiring 1.44 million tons of $V_2O_5^{-1}$
- Equivalent to $\sim 100\%$ of current vanadium supply through 2030 (Total 2022 supply was 208k tons V₂O₅).
- Execution would mean vanadium could be undersupplied by <u>~95%</u>
- Vanadium production is mostly a by-product, supply response limited with no new primary mines financed or in construction



VAND:TSXV / VANAF:OTCQX STRUCTURE







CAPITAL STRUCTURE (TSX.V: VAND, OTCQX: VANAF)

Share Price (C\$/sh) ¹	\$1.77
Shares Outstanding (mm)	16.82
Options/Warrants (mm)	Nil
Fully-Diluted (mm)	16.82
Market Cap (C\$mm) ¹	\$29.8
Cash (C\$mm) ²	\$1.3
Debt (C\$mm)	Nil
Vanadium Owned (C\$mm) ³	\$32.4
Net Asset Value per Share (C\$/sh)	\$1.94

11.00 Vanadium Unit Value (US\$/Ib V205 eq) 10.50 10.00 9.50 9.00 8.50 8.00 7.50 7.00 10/16/22 9/16/22 11/16/22 2/16/23 A16123 6/16/23 12/16/22 1/16/23 3/16/23 5/16/23

Unit Price (US\$/lb V205 Eq)

VAND Vanadium Unit Portfolio Price Since Inception

Notes:

. As of 6/23/23

2. As of 6/23/23, unaudited and net of accrued accounts payable and gross of GST/HST Receivables

3. As of 6/23/23, unaudited and purchases recognized at time of transaction and not delivery. Value of vanadium based on market prices provided by FastMarkets, CRU, and Ferroalloynet that is based on location and product type



Management and Directors



Paul Vollant CEO/Director

✓ Over 15 years of experience in the sales and marketing of strategic metals and minerals



Carmelo Marrelli CFO

✓ Over 20 years of providing accounting and regulatory compliance services to listed companies on TSX and TSXV



Jonathan Lee Chairman

 Director at Arias Resource Capital with over 20 years of experience in engineering and finance, including 13 years in metals and mining



Larry Ciccarelli Director

 President and Secretary of Rinlar Inc., a private family office, and the Vice President and Secretary of a private investment firm, KARR Securities



John Kanellitsas Director

 Vice Chairman of Lithium Americas Corp. (LAC:US) and former COO Geologic Resource Partners, LLC



Erik Bethel Director

 General Partner of Americas Frontier Fund and former US representative for the World Bank



SUMMARY



Opportunity to invest in the underlying commodity associated with a superior energy transition technology without operational, exploration, or financing risk



Physical ownership with secure title and transparent market pricing



Vanadium rental structure to reduce expenses and enable deployment of vanadium flow batteries

Expected Upside Driven By:

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1
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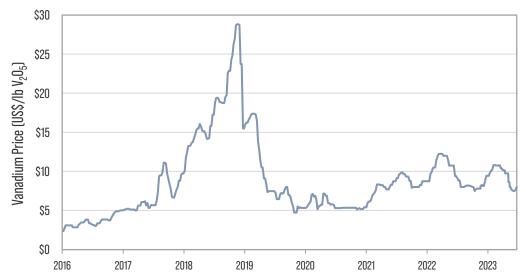
Inelastic production expected to taper over time with transition away from blast furnaces and fossil fuels, while;

- **2** VAND could dramatically reduce VRFB cost to battery customer, driving VRFB and vanadium demand without affecting battery cost;
- **3** VAND expected to help create a more a liquid vanadium market for new investors, driving demand.





Vanadium Price Overview



APPENDIX



VANADIUM: SUPPORTING THE NEW ECONOMY

Vanadium is key transition metal used in green steel and energy storage applications. Decarbonization expected to drive fast increases in demand.



Demand for low-carbon technology should require 173% more vanadium production by 2050

- Vanadium contributes to reducing 0.38% of global fossil carbon footprint from its use in micro alloyed steel
 - Stationary energy storage to grow at a 43% CAGR over the next 5 years
 - Driven by the integration low-cost renewables and new net-zero policy

Long duration vanadium batteries in conjunction with wind and solar, are ideal for the replacement of fossil fuel power plants



Vanadium supports the ESG investment case with non-degrading, full recyclable electrolyte and carbon reducing steel alloying applications

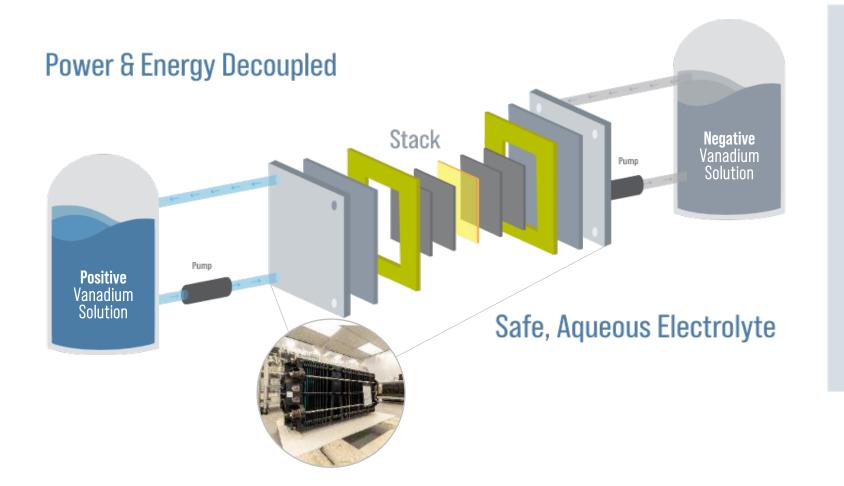
• 78% less carbon emissions emitted vs. Li-ion



Growth in new economy use cases is expected to drive additional global demand for vanadium



VRFB: <u>Batteries Designed to Last for Decades</u>





Vanadium electrolyte in cathode and anode eliminating cross contamination



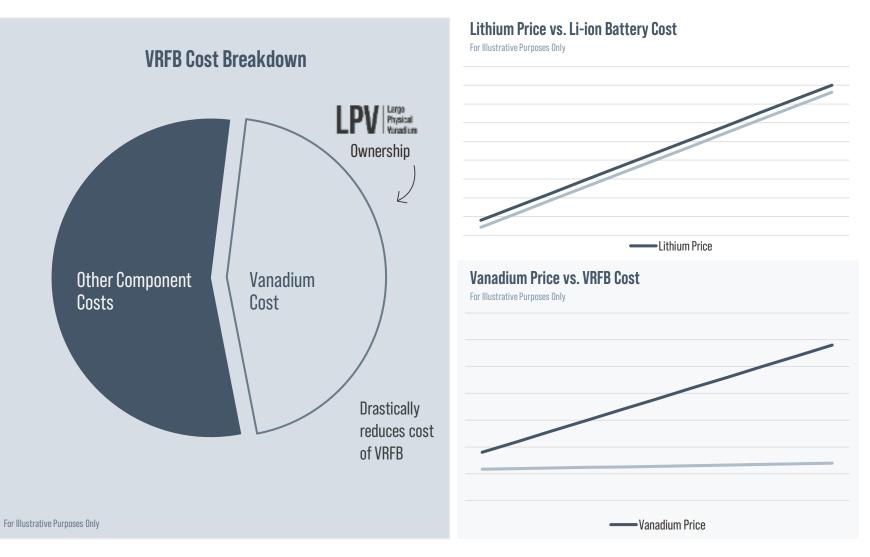
Batteries last for decades, are reusable, and non-degrading electrolyte allows for unlimited use

\$

~40 to 50% of battery cost is vanadium electrolyte



VAND: ENABLING THE ENERGY TRANSITION





"fundamental cost advantage in flow cells with an asterisk: given the low cost electroactives. Vanadium works today. If vanadium was super low cost and it had a stable price, we could all go home. Ok, the fact is its not stable so what's why people look to other chemistries"

> - Sue Babinec, Program Lead Stationary Storage





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