



# Australian Vanadium Ltd

Jun 7<sup>th</sup> 2016

## Australian Vanadium Ltd buys Australia-first vanadium electrolyte pilot plant

Australian Vanadium Ltd (ASX:AVL) has purchased a vanadium electrolyte pilot plant from leading UK technology company C-Tech Innovation Ltd (C-Tech).

The pilot plant is the first of its kind in Australia and will test and verify vanadium materials for use in vanadium redox flow batteries.

The purchase comes after AVL recently sold their first CellCube energy storage system, a key step in their vertically integrated strategy.

AVL's strategy is to deliver vanadium products to end users that can be sourced and processed through the company's mine and plant.

This pilot plant will enable AVL to develop unique vanadium electrolyte production expertise and capability in Australia, through both stand-alone and planned mine-attached facilities.

Vincent Algar, managing director, commented

"The purchase and commissioning of this pilot plant along with the sale of our first battery through VSUN, is another concrete step forward for the company in line with AVL's vanadium market integration strategy.

"We are extremely pleased with AVL's positioning as a leader in the roll-out of vanadium-based technologies and applications, and we are very proud to be bringing this industry and its exciting down-stream processing opportunities, to Western Australia.

"Raw materials such as vanadium require processing in order to prepare them for battery use. This relationship with C-Tech, leveraging its existing technologies and exciting new ideas, provides AVL with further opportunities to grow, as its vanadium integration strategy takes shape.

"For AVL, developing the expertise now prepares us for future commercial production of electrolyte."

C-Tech

C-Tech is an innovative research company who have developed commercial technology for the preparation of vanadium electrolyte for use in vanadium redox batteries.

During April, AVL signed an agreement with C-Tech to develop a vanadium electrolyte plant in Western Australia, which acted as a precursor to the purchase.

C-Tech will continue to collaborate with AVL on planning a commercial-scale electrolyte plant.

C-Tech has developed important technology to support the anticipated rapid uptake of commercial vanadium redox flow batteries across the world, as energy storage becomes a key part of renewable energy penetration.  
Gabanintha vanadium deposit

The Gabanintha deposit is currently one of the highest-grade vanadium projects being advanced globally with JORC

**Price:** A\$0.011

**Market Cap:** A\$12.975M

### 1 Year Share Price Graph



### Share Information

**Code:** AVL

**Listing:** ASX

**Sector:** General Mining

**Website:** [www.australianvanadium.com.au](http://www.australianvanadium.com.au)

### Company Synopsis:

*Australian Vanadium Ltd (ASX:AVL) is focussed on vanadium at its flagship Gabanintha project in Western Australia.*

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2012 measured, indicated and inferred resources of 91.4 million tonnes grading 0.82% V<sub>2</sub>O<sub>5</sub>.

Direct electrolyte capacity is being considered as part of the Gabanintha Project feasibility studies and plant design.

C-Tech will assist optimising metal recovery along with conventional metallurgical methods.

## Analysis

The purchase of the pilot plant by AVL is a valuation accretive step for AVL and its vanadium integration strategy, which aims to add shareholder value using vanadium from the mine face through to the battery application.

The recent battery sale confirmed a pathway via the Gildemeister agreement to distribute commercial vanadium flow battery products to end users.

This pilot plant purchase and collaboration with C-Tech is validating the supply end of vertical integration strategy by enabling the commercial production of vanadium electrolyte.

Commercial production of vanadium electrolyte has the potential to be a high volume, high margin business unit AVL.

It will enable the increased uptake of vanadium redox battery systems to occur in the many niches offered in the Australian energy market.

AVL has key agreements with vanadium battery suppliers and solar energy installers to develop the local market.

The self-contained pilot plant is in construction and will be sent to Australia in July 2016. Operation will commence immediately after arrival.

AVL has a cash balance of circa \$3.4 million after recently completing a successful \$3 million rights issue.

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