



VanadiumCorp and C-Tech Innovation Limited sign MOU to develop Electrolyte Production Plant in Canada

VANCOUVER, Jan. 12, 2017 /CNW/ - VanadiumCorp Resource Inc. (TSX-V: "VRB") (the "Company") is pleased to announce it has signed a memorandum of understanding "MOU" with leading UK technology company C-Tech Innovation Limited (C-Tech) to collaborate on the development of a vanadium electrolyte "VE" plant in Canada. Direct VE capacity is the main consideration in the Company's preliminary economic assessment "PEA". C-Tech will assist in recovery optimization and beneficiation of VanadiumCorp electrolyte directly from magnetite concentrate.

C-Tech is an innovative research and technology company focused on preparation of VE for use in vanadium redox flow batteries (VRFB). Under the MOU a test plant capable of producing battery-ready electrolyte will be established in Quebec, Canada. C-Tech will also collaborate with VanadiumCorp (along with other consultants) on a commercial-scale VE plant.

The MOU will allow the companies to collaborate on a number of key strategic initiatives including:

- The development of vanadium electrolyte production and other specialty high purity vanadium materials using C-Tech's highly efficient electrochemical processing technology from VanadiumCorp's mineral claims located in the mining center of Chibougamau, Quebec.
- The development and commercialization of efficient and environmentally friendly mineral extraction and processing technologies to enable the direct production of vanadium electrolyte from unrefined raw materials, including the simultaneous removal of contaminant metals.
- Pursue reasonable efforts to enter into a definitive agreement within 12 months from the effective date of signing for the MOU.

The general process & production development outline for The Lac Dore Vanadium Project:

- Commence initial testing of VanadiumCorp VTM, V205
- Demonstrate recovery and economics with C-Tech electrochemical pilot plant
- Commence scaled up commercial vanadium electrolyte manufacture with C-Tech production plant

Ged Barlow, MD of C-Tech Innovation comments, "VanadiumCorp is executing plans to put together a low cost vertically integrated supply chain for VE manufacture. C-Tech is excited to be part of this innovative business model and looks forward to capitalizing upon its manufacturing and purification technologies in the expanding VE market."

Adriaan Bakker, CEO of VanadiumCorp states, "VanadiumCorp's aim is to mitigate VE costs with direct process, unique supply, low cost power and vertical integration into VRFB technology. The objective of our partnership with C-Tech is to reduce total VRFB cost and accelerate commercialization."

C-Tech Innovation delivers innovative products and processes for electrochemical and advanced thermal applications. This includes unique electrochemical processes for use in energy and environmental applications, such as metal recovery, water treatment, chemical synthesis, fuel cells and batteries.

C-Tech's expertise with flow batteries, and electrochemical production of VE allows for a vertically integrated process flowsheet, test production and necessary production infrastructure. C-Tech has

developed a proprietary electrochemical process for the production of VE in VRFBs. Approximately 42% of the total cost of a VRB battery is attributed to VE specifically. VE is thus the critical component that stores electrical energy indefinitely at megawatt to gigawatt scale and ideal for storing renewable energy and many other applications such as EV charging stations and remote off grid power. VRFBs manage the intermittent nature of renewable energy most efficiently compared to competing technologies. Increasing grid stability, modernization, security and managing power for later use are all possible with the VRFB. With 100% reusable VE as the sole electrolyte, VRFBs typically last longer than 25 years and represent a "green" energy storage technology. The lower risk operation of VRFBs makes them ideally suited for commercial operations where safety is of paramount importance. The cost reduction potential of directly processed VE for VRFBs could offer significant advantages.

VanadiumCorp is focused on the development of its 100% owned Lac Dore Vanadium project. The project will incorporate local "green" processing for high-purity vanadium electrolyte, which forms a key component of flow batteries. Favorable metallurgy, low impurities such as silica and no superficial oxidation allow for a direct purification process unique to VanadiumCorp.

More information on company activities and vanadium redox batteries, including global installations, can be found on The Company's website at www.vanadiumcorp.com.

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CNW 16:00e 12-JAN-17