VanadiumCorp joins Energy Storage Canada

TSX-V: "VRB"

VANCOUVER, Nov. 21, 2016 /CNW/ - VanadiumCorp Resource Inc. (TSX-V: "VRB") (the "Company") is pleased to announce it has joined Energy Storage Canada (ESC). The ESC is the only energy storage industry association in Canada. ESC was founded in 2012 as a subgroup of the Corporate Partners Committee under the Smart Grid Forum.

Storage is the key to making renewable energy a fully competitive component of any electrical grid. It can make our grid cleaner and more efficient, for the benefit of all consumers – large and small, urban and rural. There is the opportunity, in Canada, to become world leaders in developing energy storage technologies like the vanadium redox flow battery (VRB, VRFB).

VanadiumCorp is launching many initiatives relating to the development of high purity vanadium required for the rapidly growing application of the VRFB. VRFBs are internationally recognized as proven and commercialized energy storage technology. Since 1984, VRFB technology has evolved parallel to lithium and has increased in energy density for larger applications. Grid scale long duration energy storage is necessary for the emerging need of grid security and modernization. In recent years, the VRFB and high density vanadium lithium batteries have also emerged in applications such as electric vehicles (EVs). There are many advantages of using the single element vanadium in the electrolyte (VE) of a VRFB. The contained VE never degrades, loses charge or emits any heat or emissions. Without any need for disposal, the reusable VE defines the VRFB as 100% green, sustainable energy storage. The VRFB also outperforms most competing technologies to store the intermittent and disruptive nature of renewable energy. The are very few economical sources of VE globally. Developing stable, low cost supply of VE is critical as VE represents ~42% of the cost of the VRFB system as the core component.

Members of ESC share the common mission to advance the energy storage industry in Canada through collaboration, education, policy advocacy and research. The ESC takes an unbiased view towards technology and is supported by the contributions of our active members. Energy Storage Canada works closely with other energy storage alliances and associations to push the industry forward.

Energy storage adds value at all points in the energy system. It can increase the value of the energy produced by other sources and adds capacity value to the system. It can act as a load and as a generator and provide a range of balancing services both short-term and long-term such as capacity and congestion management and ancillary services. It allows for the deferral of costly transmission and distribution infrastructure investments. Energy storage helps consumers manage power and clean energy in their own homes.

ESC will continue to focus on expanding the energy storage infrastructure in Ontario, a leading jurisdiction for energy storage in North America. The association will also leverage the strength of its membership of technology providers, project developers, power generators, local electricity distribution companies, and NGOs to advocate for regulatory changes to open other storage markets in Canada.

Federal engagement activity will build on achievements made by Energy Storage Ontario since 2013. In Ontario, the association has made energy storage a key focus for policy makers by driving awareness about the value energy storage delivers, working to create a competitive market, promoting economic development, and ensuring regulatory fairness. Among other successes, the association was instrumental in advocating for a 50MW energy storage procurement in the Ontario 2013 Long-term Energy Plan.

The ESC is the voice of leadership in energy storage in Canada and represents the full supply chain of energy storage. ESC focuses on advancing opportunities and building the market for energy storage through advocacy, knowledge-sharing, networking and stakeholder education. More information is available at www.energystoragecanada.org

Canada has implemented new strategies for its future energy economy that include the VRFB as an ideal solution for storing clean renewable power. VRFBs are profitable and represent a ground-breaking solution for reducing carbon emissions.

An example of one significant opportunity for energy storage in Canada is remote First Nations communities in Northern Canada that require diesel generated power. In Canada, 292 remote off-grid communities are electrified by diesel generators which require fuel that must be delivered by air, water and winter roads. By installing renewable power in combination with VRFB storage, quality of life would increase, capital costs would decrease, and would result in complete elimination of GHG emissions, localized air and noise pollution, as well as the soil and ground water transportation related emissions associated with delivering the fuel. The Government of Ontario notes; "a large, diesel-powered community produces more than 10,000 tonnes of carbon dioxide a year." In diesel-based communities, the estimated consumption to generate electricity alone is 215 million litres/year (excluding transportation and heating), and per capita, has almost double the environmental footprint of the Canadian emission average. In Ontario, the cost of producing off-grid electricity using diesel can be up to 10x higher (up to 94 cents/kWh) than electricity within the primary electricity grid. Globally there are similar large rural areas where there is no reliable electrical grid and electricity.

VanadiumCorp started the first processing initiative relating to VRFB and VE for the company's Lac Dore Vanadium Project in June 2016. Under the independent governance of the Vanadium Electrolyte Process Partnership (VEPP) (www.vepp.org), this initiative is focused on process definition for integration into further stages of development (prefeasibility, pilot plant and feasibility) for the company's Lac Dore vanadium project. VEPP is an independent organization focused on vanadium process development solutions for production of high purity vanadium electrolyte.

About VanadiumCorp Commercialized VRFB energy storage requires the cost reduction potential of VE from a high purity primary source. Development of the only primary North American vanadium supply offers distinct strategic and competitive advantages for Canada for energy storage, national security, aerospace and infrastructure. The VanadiumCorp resources are all close to required infrastructure and easily accessed with high purity vanadium mineralization at surface. VanadiumCorp and its global VRFB partners, Schmid Energy GmBH and others have recognized the value of developing low cost stable supply of VE to significantly reduce the cost/KWH of the VRFB. Preliminary economics and detail will be provided in the Company's much anticipated PEA. News relating to VE processing from The Company's Lac Dore Vanadium Project is also pending. VanadiumCorp's objective is to establish the lowest cost VE supply for North America and the world.

VRFBs are emerging as the technology of choice for grid energy storage and renewable energy. VRBs offer longer life cycle to competing technologies, scalability, superior safety, unlimited capacity and utilize 100% reusable battery material.

The Company would also like to amend information contained in a news release issued on November 8, 2016 "Canadian Government Announcement: Defining role in growing vanadium market." The amended disclosure is as follows:

The National Research Council of Canada (NRC), the Government of Canada's premier research and technology organization, recently published an article about vanadium and energy storage, titled "Defining Canada's role in a growing vanadium market." The full NRC article can be accessed on their website. http://www.nrc-cnrc.gc.ca/eng/publications/nrc_pubs/energy_storage/2016/fall_main_article2016.html

VanadiumCorp invites the public to visit www.vanadiumcorp.com for more information.

Cautionary Note - The information in this news release includes certain "forward-looking statements" All statements, other than statements of historical fact, included herein including, without limitation, plans for and intentions with respect to the company's properties, statements regarding intentions with respect to obligations due for various projects, strategic alternatives, quantity of resources or reserves, timing of permitting, construction and production and other milestones, are forward looking statements. Statements concerning Mineral Reserves and Mineral Resources are also forward-looking statements in that they reflect an assessment, based on certain assumptions, of the mineralization that would be encountered and mining results if the project were developed and mined in the manner described. Mineral resources that are not mineral reserves do not have demonstrated economic viability. This preliminary assessment is preliminary in nature; it includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the results of the preliminary assessment will be realized. Forward-looking statements involve various risks and uncertainties. There can be no assurance that such statements will prove to be accurate, and actual results and future events could differ materially from those anticipated in such statements. Important factors that could cause actual results to differ materially from VRB's expectations include the uncertainties involving the need for additional financing to explore and develop properties and availability of financing in the debt and capital markets; uncertainties involved in the interpretation of drilling results and geological tests and the estimation of reserves and resources; the need for cooperation of government agencies and local groups in the exploration, and development of properties; and the need to obtain permits and governmental approval. VRB's forward looking statements reflect the beliefs, opinions and projections of management on the date the statements are made. VRB assumes no obligation to update the forward looking statements if management's beliefs, opinions, projections, or other factors should they change.

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