MGX Minerals Announces Major Advancement in Mass Storage Battery Technology; Solves Zinc Dendrite Formation Limitation

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VANCOUVER, British Columbia, Jan. 09, 2018 (GLOBE NEWSWIRE) -- MGX Minerals Inc. (“MGX” or the “Company”) (CSE:XMG) (FKT:1MG) (OTCQB:MGXMF) is pleased to announce wholly owned subsidiary ZincNyx Energy Solutions, Inc. (“ZincNyx”) has solved the long standing reliability issue caused by the growth of zinc dendrites in zinc-air flow batteries. The problem occurs when filaments of zinc (dendrites) grow in unintended areas and may cause membrane ruptures or short circuits to occur. The ZincNyx system is immune to this effect since it uses zinc dendrites as fuel and consumes them as part of its normal operation. Avoidance of dendrite damage is the single most significant hurdle in development and commercialization of zinc-air flow battery systems. Phase II design and testing has been completed and final commercial design is now underway for mass production of its scalable 20kWh capacity zinc-air mass storage battery.

Principle of Operation

ZincNyx U.S. Patent Coverage

This innovative regenerative zinc-air flow battery can be readily scaled from kilowatt to megawatt range to provide low cost energy storage. ZincNyx has developed a patented regenerative zinc-air flow battery that efficiently stores energy in the form of zinc particles and contains none of the traditional high cost battery commodities such as lithium, vanadium, or cobalt. The technology allows for low cost mass storage of energy and can be deployed into a wide range of applications.

Unlike conventional batteries, which have a fixed energy/power ratio, ZincNyx’s technology uses a fuel tank system that offers flexible energy/power ratios and scalability. The storage capacity is directly tied to the size of the fuel tank and quantity of charged zinc fuel making scalability a major advantage of the flow battery system. In addition, further major advantage of the zinc-air flow battery is the ability to charge and discharge simultaneously and at different maximum charge or discharge rates as each of the charge and discharge circuits is separate and independent. Other types of standard and flow batteries are limited to a maximum charge and discharge by the total number of cells as there is no separation of the charge, discharge and size of the fuel storage system.

The technology emits no greenhouse gases or pollutants.

ZincNyx Technology
ZincNyx’s technology consists of three main subsystems that use zinc and air to store energy in the form of zinc particles. When the system is delivering power, the zinc particles are combined with oxygen drawn from the surrounding air. When the system is recharging, zinc particles are regenerated and oxygen is returned to atmospheric air.

ZincNyx has secured over 20 patents to date.

Photos accompanying this announcement are available at:
http://www.globenewswire.com/NewsRoom/AttachmentNg/25ffa7d2-928d-4112-829b-d6d6d3a1766c
http://www.globenewswire.com/NewsRoom/AttachmentNg/e4900a58-e620-4091-bb58-d9ba9f792e93

About ZincNyx Energy Solutions
To learn more about ZincNyx technology visit www.zincnyx.com.

About MGX Minerals
MGX Minerals is a diversified Canadian resource company with interests in advanced material and energy assets throughout North America. Learn more at www.mgxminerals.com.

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