



MGX Minerals Receives Court Approval for Plan of Arrangement with MGX Renewables; Commences Testing of Regenerator / Charging Module

VANCOUVER, BRITISH COLUMBIA / December 18, 2018 / **MGX Minerals Inc.** (“MGX” or the “Company”) ([CSE: XMG](#) / [FKT: 1MG](#) / [OTCQB: MGXMF](#)) is pleased to announce that the Company has received an interim order from the Supreme Court of British Columbia in respect of the Plan of Arrangement (the “Interim Order”) with its wholly-owned subsidiary MGX Renewables Inc. (“MGX Renewables”) whereby MGX will complete a spin-out of 40% of the common shares of MGX Renewables (“MGX Renewables Shares”) pursuant to a plan of arrangement (the “Plan of Arrangement”) under the Business Corporations Act (British Columbia) as part of a going public transaction planned for early February 2019.

Pursuant to the Interim Order, the spin-out will require certain approvals by MGX shareholders at the Company’s annual general and special meeting, which is expected to take place on January 11, 2019 (the “Meeting”). For more information on the Plan of Arrangement, please refer to the Company’s management information circular mailed to MGX shareholders in connection with the Meeting, dated November 30, 2018, and its news releases dated November 1, 2018 and November 30, 2018, available on the Company’s profile on SEDAR at www.sedar.com and at www.mgxminerals.com.

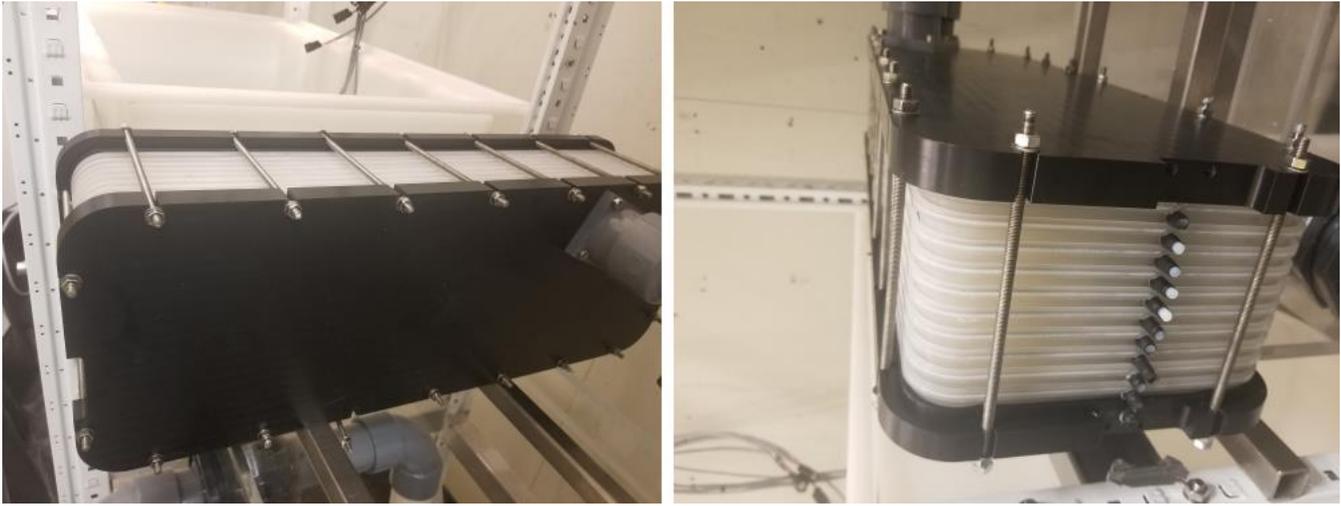
ZRM-4500 Zinc Regeneration Module

The MGXR ZRM-4500 is a zinc regeneration module that uses electricity to extract zinc particles from a potassium zincate solution. It is composed of up to 18 bipolar plates connected in series and driven from a nominal 60 Volt input. The unit is constructed of Noryl plastic and magnesium alloy and is fitted with SurLok connectors for quick electrical installation. Instrumentation includes an embedded microprocessor control system and associated voltage sensors. The current configuration has a rated input power of 4.5kW, duty cycle of 80%, operating life of 20,000 hours, and recharge capacity of 1.75kWh / h.

Technology

The ZRM-4500 is a key component of MGXR’s unique and patented zinc-air energy storage system. In this system, energy is stored in the form of zinc particles, similar in size to grains of sand. When the system is recharging, the zinc particles are regenerated and the evolved oxygen is returned to the surrounding air by the Zinc Regeneration Module (ZRM).

Figure 1. Regeneration module



MGXR Energy Storage System

The MGXR ESS is a modular Energy Storage System designed to deliver power in the range 20 kW – 50MW and storage in the range of 120Kwh – 1GWh over extended periods of time. With the advantage of rechargeable zinc-air fuel cell technology, the system can be configured to support a wide range of discharge power, recharge power and duty cycle requirements. Since the energy storage capacity of the system is determined only by the size of the fuel tank, a very cost-effective scalable solution now exists as an alternative to the linear power storage ratio in the lithium ion battery.

Li-ion versus Zinc-Air

The fundamental limitation of a linear power to storage ratio and cost burden associated with both lithium-ion and lack of flexibility gives an overwhelming advantage to MGXR's zinc-air fuel cell technology. In addition to containing no expensive commodities such as lithium or cobalt, the zinc air fuel cell battery has a much lower cost of storage reflecting a paradigm shift essentially eliminating the traditional linear fixed power / storage ratio and allowing for scalable power with highly flexible storage capacity at essentially any ratio, limited only by the physical parameters of the fluidized zinc storage tank(s). The zinc-air fuel cell battery has completely decoupled power and storage subsystems with ratios of 1:5 up to 1:20 and conceptually 1:100, giving significant advantage in any scenario requiring more than a few hours of storage. This fills the need in both renewables storage as well as industry and grid scale opportunities in power acquisition and distribution along with the inherent benefits of clean steady power; with the potential to acquire power not just overnight and discharge on demand during the day but to take advantage of much larger swings in power demand and supply such as weekly, monthly, and potentially seasonal fluctuation. Charging is also flexible and is scaled to match discharge but is a separate subsystem that can be scaled to match



supply markets and timeframe of power availability whether long or short windows for power acquisition. This creates both an arbitrage opportunity and cost savings opportunity but a policy level opportunity to enhance localized power infrastructure without the need to build new power plants or transmission lines.

Figure 2. MGXR modular Energy Storage System (ESS)



Technology

The MGXR ESS is based upon unique and patented zinc-air fuel cell technology. Energy is stored in the form of zinc particles, similar in size to grains of sand. When the system is delivering power, the zinc particles are combined with oxygen drawn from the surrounding air. When the system is recharging, the zinc particles are regenerated and the oxygen is returned to the surrounding air.

About MGX Renewables

MGX Renewables, has developed a patented 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 scalable energy storage applications.



Unlike conventional batteries such as lithium-ion, which have a fixed energy/power ratio, the technology uses a fuel tank system that offers flexible energy storage to power ratios and scalability. The storage capacity is directly tied to the size of the fuel tank and the quantity of recharged zinc fuel, making low cost scalability a major advantage of the flow battery system. In addition, a 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 since 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 storage components. For more information visit www.mgxrenewables.com.

About MGX Minerals

MGX Minerals is a diversified Canadian resource and technology company with interests in global advanced material, energy and water assets.

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Neither the Canadian Securities Exchange nor its Regulation Services Provider (as that term is defined in the policies of the Canadian Securities Exchange) accepts responsibility for the adequacy or accuracy of this release.

Legal Advisories

Listing of the MGX Renewables shares remains subject to CSE approval. A market for MGX Renewables Shares may not sustainably develop following the completion of the Plan of Arrangement. If a market for MGX Renewables Shares does not sustainably develop, MGX shareholders may have difficulty selling their MGX Renewables Shares and the market price for MGX Renewables Shares may be volatile and subject to wide fluctuations in response to numerous factors, many of which are beyond the Company's and MGX Renewables' control. If the MGX Renewables Shares are not accepted for listing on a recognized exchange then the Plan of Arrangement may not be completed.

Following completion of the Plan of Arrangement, the Company may own or control MGX Renewables Shares and that ownership or control may be material. As a result, the Company could have the ability to control or veto matters submitted to MGX Renewables' shareholders for approval. This may negatively affect the attractiveness of MGX Renewables to third parties considering an acquisition of MGX Renewables or cause the market price of the MGX



Renewables Shares to decline. The interests of the Company may not in all cases be aligned with the interests of MGX Renewables' shareholders. In addition, the Company may have an interest in pursuing acquisitions, divestitures and other transactions that, in the judgment of its management, could enhance its equity investment, even though such transactions might involve risks to MGX Renewables' shareholders and may ultimately adversely affect the market price of the MGX Renewables Shares. So long as the Company continues to own, directly or indirectly, a significant amount of the MGX Renewables Shares, the Company may be able to strongly influence or effectively control MGX Renewables' decisions.

The Company does, from time to time, make investments in other companies and in its own research and development initiatives. As such, the Company may acquire interests in companies or otherwise develop businesses that directly or indirectly compete with all or certain portions of MGX Renewables' business or that are suppliers to, or customers of, MGX Renewables.

MGX shareholders should consult their own tax advisors in respect of the Plan of Arrangement.

Forward-Looking Statements

This press release contains forward-looking information or forward-looking statements (collectively "forward-looking information") within the meaning of applicable securities laws. Forward-looking information is typically identified by words such as: "believe", "expect", "anticipate", "intend", "estimate", "potentially" and similar expressions, or are those, which, by their nature, refer to future events. The Company cautions investors that any forward-looking information provided by the Company is not a guarantee of future results or performance, and that actual results may differ materially from those in forward-looking information as a result of various factors. The reader is referred to the Company's public filings for a more complete discussion of such risk factors and their potential effects which may be accessed through the Company's profile on SEDAR at www.sedar.com.