



FOR IMMEDIATE RELEASE

IMII ramping up consideration of new energy technologies for Saskatchewan's minerals industry

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Saskatoon, SK (Canada) – The IMII is pleased to report it is ramping up consideration of new energy-related technologies on behalf of its minerals industry members – BHP, Cameco, Fission Uranium, Mosaic and Nutrien.

Coming out of DEMOday 2023, IMII has invited Extract Energy Inc. and Solex Thermal Science Inc. to submit *Demonstrating Innovations* proposals to help advance the industry's consideration of their innovative technologies. Extract Energy – which is also IMII's Innovation Award winner for 2023, has a novel application of a shape memory alloy heat engine in the waste heat to electric power space. Solex Thermal Science has two heat exchanging technologies which could be used to replace the use of natural gas in the potash drying process. Both technologies have the potential to make industry more energy efficient, consume less fossil fuels and reduce greenhouse gas emissions.

“Critical minerals, such as potash and uranium, are key to the greening of food and electricity production,” says Al Shpyth, IMII's executive director, “and new technologies can help Saskatchewan's industry produce these important minerals for world markets even more sustainably.”

These new proposals will add to IMII's energy-related pipeline, which includes two recent projects announced on May 17, 2023. IMII has concluded an *Exploring Innovations* project with Acceleware Ltd. which validated the potential to use radio frequency (RF) energy from their Clean Tech Inverter to dry potash and other mineral commodities. IMII has invited Acceleware to submit a proposal for subsequent project phases which could lead to the development of a commercial scale drying platform with lower capital and operating costs than fossil fuels, and lower GHG emissions levels too.

IMII has also advanced the first phase of a *Demonstrating Innovations* project with SolarSteam Inc. on the potential for utilizing their renewable heat generation technology which could harness Saskatchewan's solar resources with a concentrated solar thermal system. Such a system has the potential to be deployed to support a variety of process and building heating needs in minerals operations.

“These two projects have taken important steps to understanding and validating the potential the technologies have as clean technology solutions for the industry's heat needs,” adds Shpyth. Many reports find most industry's energy needs are to provide heating solutions so these technologies may make contributions beyond the minerals industry.



For those interested in these technologies, please contact IMII or the innovative companies involved directly:

- [Extract Energy – Converting waste heat into clean energy.](#)
- solexthermal.com
- [Decarbonizing Industrial Heating via Clean Tech Inverter Electrification - Acceleware Ltd.](#)
- [Lowest Cost Renewable Heat - SolarSteam](#)

For more information on IMII programs for supporting technology development and demonstration, please visit [Exploring Innovations – International Minerals Innovation Institute \(imii.ca\)](#), [Developing Innovations – International Minerals Innovation Institute \(imii.ca\)](#) or [Demonstrating Innovations – International Minerals Innovation Institute \(imii.ca\)](#)

For More Information

For more information on IMII, visit www.imii.ca

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About IMII:

IMII is a non-profit organization jointly funded by industry and government and is committed to developing and implementing innovative education, training, research and development partnerships for supporting a world-class minerals industry.

IMII serves as an Innovation Steward to strengthen the Saskatchewan minerals industry's competitiveness and growth through Research, Development & Demonstration and Education & Training to drive the future's Qualified & Representative Workforce.