

Alternative Energy Systems Challenge

Phase 2

IMI's Alternative Energy Systems Innovation Challenge has moved into the second stage of the Innovation Sprint phase with two finalists:

- Anax Power and their turboexpander; and
- Growing Greener Innovations (GGI) with their battery energy storage solution (BESS)

The Anax Turboexpander has the potential to provide clean, distributed electricity from the pressure and flow of natural gas, without combustion. The technology repurposes energy lost in the natural gas let-down process at network pressure reducing stations to drive an in-line generator which is installed in parallel with natural gas pressure reducing valves. It has also been selected for a demonstration project by Emissions Reduction Alberta. For more information on the Anax Turboexpander see [Anax-Power-overview.pdf \(anaxpower.com\)](#).

GGI is a Canadian energy technology company focused on engineering and manufacturing batteries, battery management systems, and battery energy storage solutions for residential, commercial and industrial customers. GGI holds the patent for stackable battery packs that can be clicked together like LEGO™ to meet any power demand and is further developing its Smart Switch, a smart battery/grid management system that will address issues such as peak shaving, voltage optimization, load balancing, charge/discharge optimization and time-of-use, resulting in lower greenhouse gas emissions, lower overall energy use, longer-lived batteries and substantial cost savings for large-scale energy users in high-fee regions.

For more information on the GGI BESS see [The Technology Behind Our Portable Electric Generators - Grengine™ - Grengine - Growing Greener Innovations](#).

At the conclusion of the Innovation Sprint IMI will select a challenge winner. IMI members are proud to have been investing in the developing and proving out technologies with potential for the minerals industry.

Proponent: IMI
Project Duration: April 2022 to June 2022
Project Cost: \$500,000
IMI Contribution: \$500,000



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IMI is a unique innovation supporting network of mining companies, government departments and agencies, and post-secondary and research institutions, jointly funded by industry and government. It exists to deliver innovations that matter to mining in Saskatchewan.
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