Applications of Small Modular Reactors for the Saskatchewan Minerals Industry

Minerals operations in Saskatchewan require large amounts of electricity to run equipment and heat for industrial processes such as steam generation and product drying. Due to the nature of Saskatchewan's current power grids and resources, the main sources for power and heat are predominantly fossil fuels. Saskatchewan minerals operators want to reduce their emissions and increase the use of non-abated/low greenhouse gas emitting forms of energy for cleaner process heat and electricity.

This project is focused on how small modular reactors (SMRs) can be leveraged to address these needs and help to meet carbon emissions reduction goals. This study will provide information to help assess the applicability of SMR technologies to address clean heat and power requirements of Saskatchewan mineral operations.

The project will address how SMR generated heat can be effectively utilized for mine operators and will look for potential synergies in SMR adoption across the mining sectors.

Proponent: March Consulting Inc.

Project Duration: January to August 2024

Project Cost: \$125,000

Industry Contribution \$ 85,000 March Consulting \$ 10,000 SaskPower \$ 30,000

