**Is Thorium the future of mining?**

Canada is heavily reliant on hydro and nuclear electrical energy production to power our cities and industries. Being in the northern hemisphere also means that Canada experiences shortages of electrical power during certain months of the year, especially during the winter. This also makes it important for Canada to develop a secure source of energy which can continue producing electrical energy despite climate weather changes, fuel availability or the season.

Nuclear power stations have been one of the main and reliable power source since the seventies to produce electricity. However, recent research and studies being conducted on thorium reactors in India and China, have provided a new and safer solution in a perfect alternative for nuclear power production plants.

The thorium reactor is set to deliver some huge benefits ranging from costs to safety. Some major benefits are:

**Thorium is safer reactor material to use:** Unlike uranium used with nuclear reactors, thorium has been proven to be a much safer reactor material to use, which cools down faster and its waste neutralized in a considerably shorter period of time. Thorium is also safer to use when producing electrical energy since simply breaking liquid-fluoride flow will stop the entire reaction and result in a faster shut down. The waste material produced by the thorium reactors also biodegrades much faster than nuclear reactor waste.

**Thorium is more abundant and easier to mine:** Unlike uranium, thorium is much more abundant and easily mined in most countries across the globe. This makes it much easier for countries facing energy crises to develop thorium power stations without needing to be dependent on certain nations to supply the thorium required for the reaction.

**Thorium produces less hazardous waste material:** A major drawback linked to nuclear reactors is the nuclear waste they produce and the need for expensive nuclear waste management. The waste remains hazardous for thousands of years and this poses some major problems for humanity in the future. Thorium waste on the other hand is less hazardous and usually dissipates or is neutralized naturally over hundreds of years making it much more manageable after use.

With China and India facing huge energy crises, it can only be expected that they will develop a technology to harness the energy from thorium. Canada has always been in the lead when it comes to clean energy development and mining. Finding an alternative to nuclear power stations is something the Canadian government is looking forward to.

A successful Thorium reactor development will have a major positive effect on the Canadian mining industry as it will create new opportunities for exploration. It will also ensure that the country produces adequate electrical energy at low cost to power Canada and keeping the country sustainable and attractive for investors in the future.