

THE SUSTAINABILITY OF URANIUM MINING AND SMALL MODULAR REACTOR TECHNOLOGY

Presentation to the 2023 Nunavut Mining Symposium

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FORUM ACKNOWLEDGES

that we work and travel on the traditional lands and waters of Indigenous peoples.

Thank you for hosting us today.

We acknowledge that the Lands and Waters here are the homelands of Nunavummiut



URANIUM INDUSTRY

Canada's uranium mining industry will be an essential part of reducing carbon emissions internationally.

Uranium is a critical mineral for fueling the demand for nuclear energy.



CANADA'S URANIUM INDUSTRY



Uranium exploration is underway in Saskatchewan, Manitoba, Ontario, Labrador and Nunavut.

Uranium is mined in Saskatchewan and processed in Blind River, Port Hope, Peterborough and Toronto, Ontario for export and to service Canada's four nuclear power generating stations in two provinces. 60% of Ontario's power is Nuclear.



WHY URANIUM NOW?

It's the only carbon-free energy source that can reliably deliver power day and night, through every season, almost anywhere on earth, that has proven to work on a large scale.





CANADA'S INVESTMENT

Canada is invested in meeting its net-zero emissions targets by 2050. This has led to significant budgetary commitments for both uranium mining and nuclear power development.

- Uranium - a Critical Mineral under Canada's Critical Mineral Strategy.
- Canada supports UN Climate Change (COP26) recommendation for Nuclear Power to meet the Energy Transition to clean energy.
- Small Modular Reactor Action Plan.





FORUM'S INVESTMENT

Forum is an exploration company that will be conducting uranium exploration in the Kivalliq region of Nunavut, 100 kilometres west of the Hamlet of Baker Lake.

- Engagement with the Community.
- Jobs, Training and hiring of local Inuit services.
- Utilize IQ to ensure compatibility of wildlife and exploration activity.





NUCLEAR INDUSTRY

- Clean Energy Zero Carbon Emissions
- Baseload Energy to replace fossil fuel power generation
- High Regulation Standards





SMALL MODULAR REACTOR (SMRs)

SMRs are modular from 50MW to 300MW of power and are more cost-effective than traditional nuclear plants due to their modular nature.

Projects underway in all four provinces at various stages



Provinces Release Strategic Plan To Advance Small Modular Reactors

March 28, 2022



Darlington 300MW SMR Generating Station, Ontario

DARLINGTON BOWMANVILLE, ONTARIO



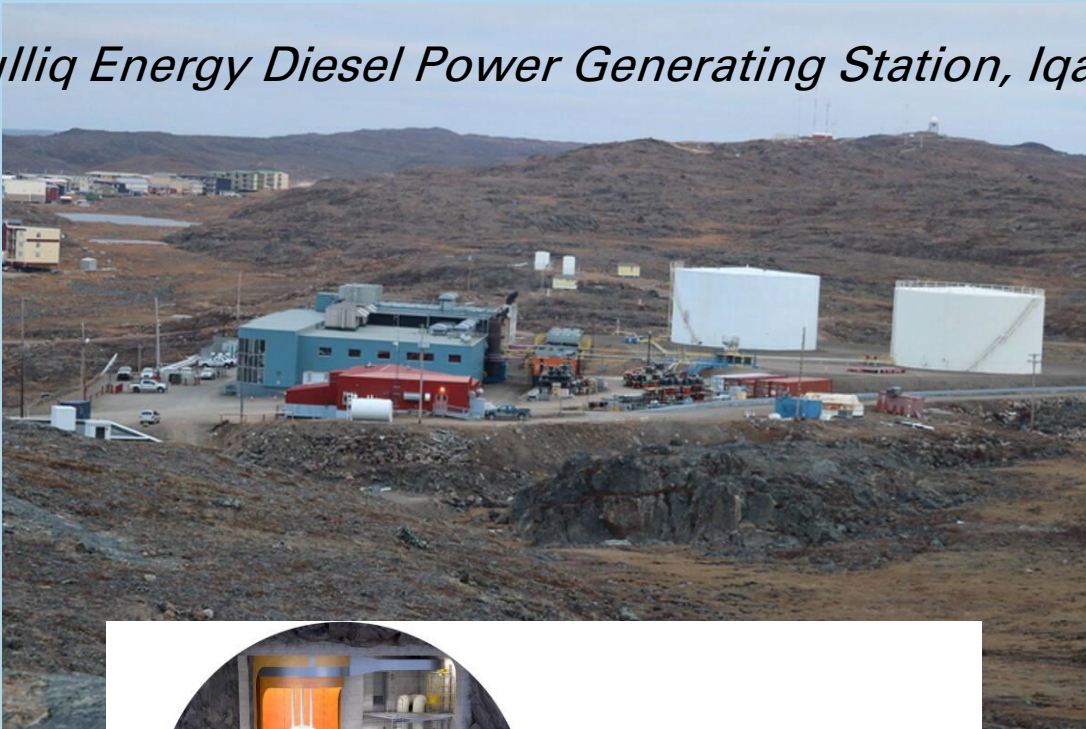
- Ontario Power Generation, General Electric-Hitachi, SNC Lavalin, Aecon 300 MW SMR
- First in North America
- Power to 300,000 homes
- Construction Decision 2024
- Production 2029



NUCLEAR AND THE NORTH

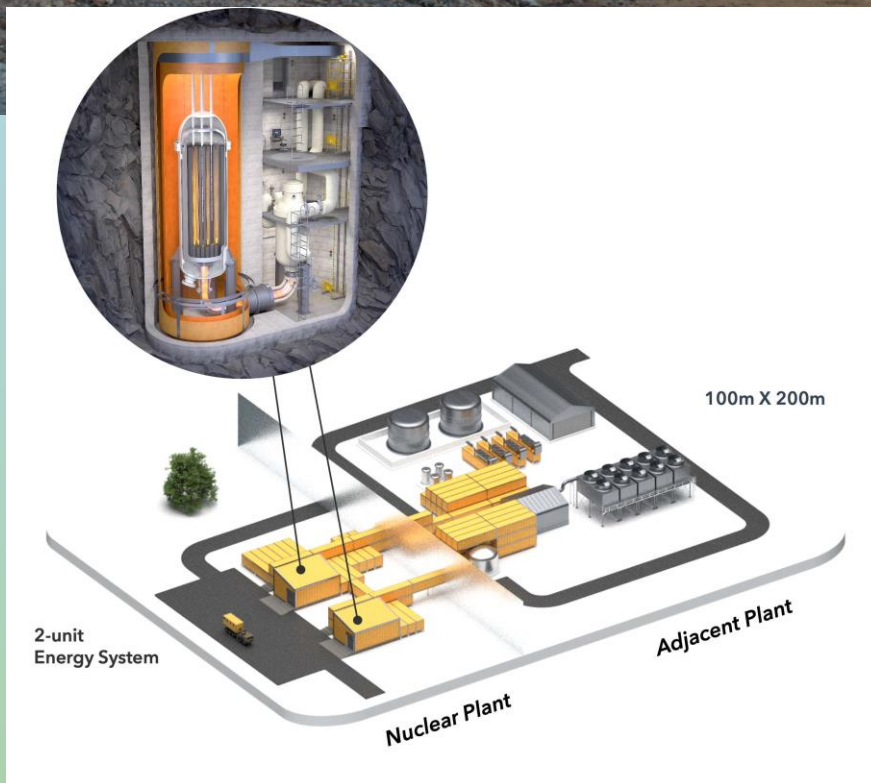


- Northern and remote communities are still relying heavily on diesel for energy.
- The high cost of energy, infrastructure challenges, and the harsh climate indicates that Canada's North is facing an energy crisis.
- Micro Modular Reactors are an answer for northern communities .



MICRO MODULAR REACTORS (MMRs)

- 5MW to 10MW modular units
- Two 10MW units could power Iqaluit and displace 15 million litres of diesel per year
- OPG & Ultra Safe Nuclear (USNC) to build at Chalk River, Ontario
- Production 2027
- USNC currently has five projects in Poland, Finland, US and Canada





ENGAGEMENT

Meaningfully engaging and involving the communities will be integral to developing support for uranium mining and SMRs.

- Energy Planning
- Discussion of Alternatives
- Start Early



ENERGY LITERACY

Improving a community's overall understanding of power supply and net-zero power technologies empowers everyone to engage in the decision-making process.

Overall, the more communities understand new technologies, including nuclear, the more favourably they perceive them.





INDIGENOUS PARTICIPATION

Across the sector are opportunities to partner with Indigenous communities. True collaboration brings:

- Shared economic prosperity
- Qualified Indigenous workforce
- Prioritization of the environment for generations to come



Conclusion & Next Steps

The Government of Canada is committed to uranium mining, the growth in nuclear energy to address climate change and the development of SMR technology.

Nunavut has a real opportunity to be a world leader in the transition to clean and reliable energy from mining of uranium to the adoption of SMRs as an energy alternative.

QUESTIONS?





MA'NA THANK YOU

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