

Physical Infrastructure



Powering Tomorrow: Saskatchewan's Nuclear Advantage



Saskatchewan is preparing for a future that includes nuclear power by building on its vast uranium resources, strong research expertise and growing capacity in nuclear engineering. The province has limited access to additional large-scale hydroelectric power, and renewable sources such as solar and wind energy are intermittent. As electricity demand increases and the need for reliable power continues to grow, nuclear power is being explored as a dependable long-term option that can provide steady, non-greenhouse gas emitting baseload generation to complement or ultimately replace other energy sources.

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Saskatchewan's strength in uranium production provides a strong foundation for this pathway. The province produces 100 per cent of Canada's uranium and hosts the highest-grade deposits in the world. In 2025, uranium sales reached a record \$3.2 billion, reflecting strong global demand. Saskatchewan's long history of uranium mining has supported local communities, developed specialized expertise and positioned Saskatchewan as a trusted supplier of fuel for nuclear power.

Along with its resource advantage, Saskatchewan has built decades of leadership in nuclear research and innovation. For nearly 40 years, the Saskatchewan Research Council's SLOWPOKE2 research reactor supported neutron activation analysis and advanced work in sectors such as mining and agriculture. Several world-class facilities continue this legacy today. The Canadian Light Source, Canada's only synchrotron, along with the Sylvia Fedoruk Canadian Centre for Nuclear Innovation and the Saskatchewan Centre for Cyclotron Sciences, all contribute to leading research in health, energy, environmental science and radiopharmaceutical development.

Recent investments focused on nuclear energy will further support nuclear research, training and education in the province. The Government of Saskatchewan, through SaskPower, is investing \$6.3 million in four new nuclear research chairs at post-secondary institutions across the province. SaskPower also plans to invest \$4 million to establish the University of Regina's SMR Safety, Licensing and Testing Centre, which will include two SMR testing loops that simulate part of an SMR reactor.

Industry collaboration is expanding as well. SaskPower, Cameco and Westinghouse have signed an agreement to explore collaboration across the full nuclear fuel cycle, including uranium extraction, fuel processing, nuclear technologies, research and innovation, site development, reactor operation and fuel waste management. In 2025, Saskatoon also hosted the first Canadian Nuclear Association West Conference, where delegates advanced discussions on workforce development, regulatory readiness, Indigenous partnerships and regional collaboration.

As nuclear development progresses, new economic opportunities are emerging. Saskatchewan businesses in construction, manufacturing, research services and future reactor operation will be able to participate in the growing global nuclear supply chain. This growth creates long-term jobs, attracts investment and supports broader economic resilience across the province.

Why It Matters

Nuclear energy provides a dependable and non-greenhouse gas emitting source of electricity that supports communities and a growing provincial power demand. With world-class uranium resources, longstanding research institutions and expanding industrial partnerships to develop nuclear energy, Saskatchewan is well positioned for future nuclear development. These strengths help build a reliable energy system that supports local communities and long-term provincial resilience.

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