

Powering Alberta's Clean Energy Future

Alberta has the opportunity
to lead in clean energy innovation.

Nuclear energy offers a zero-emission source of electricity, ensuring a reliable supply and stable pricing. By leveraging this technology, we can create a made-in-Alberta solution to secure long-term energy stability while advancing both our environmental and economic objectives.



Project Overview

Utilizing Globally Recognized Nuclear Technology

Energy Alberta is proposing to build a nuclear power generating station in the Peace River area of Northern Alberta that would include two to four large-scale reactors. The facility could produce up to 4,800 MW of electricity for the grid, representing up to 25% of the province's existing electricity generation.

Project Status

Bringing Expertise Together

Energy Alberta has assembled a team with extensive nuclear experience and initiated the planning required to advance a nuclear generation project in Canada, including early consultations with government, community leaders and Indigenous groups.

Impact Assessment Process

Energy Alberta has submitted an Initial Project Description in April 2025 that has initiated a federal Impact Assessment (IA) for the Peace River Nuclear Power Project. The IA process, led by the Impact Assessment Agency of Canada (IAAC) and the Canadian Nuclear Safety Commission (CNSC), will evaluate the potential effects of the project on the environment, health, society and economy. It will also assess the impact on Indigenous Peoples and their rights. [Visit IAAC's page for the Peace River Nuclear Power Project.](#)

Decision on Public Interest

An IA is a phased planning process spanning over multiple years, involving extensive community and public engagement, as well as comprehensive environmental and socioeconomic studies. Upon completion of the IA process, the federal government determines whether the project is in the public interest and grants approval for it to proceed.

The Advantages of Nuclear

Harnessing the power of innovation.

Canada's nuclear industry is one of the most regulated in the world and its facilities are the most protected critical infrastructure in Canada. Canada's nuclear industry is an economic engine, offering high-paying jobs to skilled workers, and significant revenue for provincial and federal governments.



Jobs

89,000 people employed.



Revenue

\$22 billion in annual GDP contribution.



Output

15% of Canada's electricity.



Environmental Advantage

80 million tonnes of CO2 emissions per year are avoided.



Energy Security

Nuclear Energy can run 24/7, providing a reliable, constant and stable supply of electricity.



Supply

Canada is the second largest uranium producer in the world.

Decades of Safe, Reliable Nuclear Power

65 years of safe operations.

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Operating Excellence

Today, there are about 440 commercial reactors operating in 30+ countries. Civil nuclear power can now boast approximately 20,000 reactor years of operating experience. In addition, there are about 220 research reactors operating in more than 50 countries.

Clean, Green Power

Nuclear provides 9% of global electricity and about 25% of the world's low-carbon power, making it the second-largest clean energy source.



Energy Alberta

Greening the power supply.

Energy Alberta an Alberta-based company led by an experienced group of innovators, nuclear industry experts and leaders in environmental sustainability. We are dedicated to building and operating a world-class nuclear electricity generating station that will transform energy production in the province. Founded in 2005, our vision is to diversify Alberta's energy portfolio by providing safe, secure energy for Albertans while creating high-quality jobs and economic opportunities.