



# **GLOBAL FIRST POWER**

**CLEAN, RELIABLE ENERGY**

Supporting Canada's goals to  
combat climate change

## Who We Are

Global First Power (GFP) has a vision: a world where small modular reactors (SMRs) are an inherently safe, clean, and cost-effective generation option to provide the energy people need to live and work, regardless of location.

GFP's mission is to contribute to the global transition to sustainable, inclusive, accessible energy, by being among the first developers to successfully generate power using innovative nuclear reactor technology. Our solution will provide safe, clean, reliable energy while supporting Canada's goals to combat climate change.

## Our Commercial Demonstration Project

GFP is proposing to construct and operate a small modular nuclear reactor at Atomic Energy of Canada Limited's Chalk River site, near Deep River, Ontario. This project will show how technology developer Ultra Safe Nuclear Corporation's (USNC) cutting edge Micro Modular Reactor™ (MMR™) technology can be an economically competitive alternative to greenhouse gas-emitting diesel power, with a smaller environmental footprint. The facility, designed to provide energy to heavy industry and remote communities, will generate approximately 15 megawatts of thermal power ( $MW_{th}$ ) that could be converted to electrical power (up to 5 MWe).



Chalk River Site

## Our Work

- GFP is currently in Stage 3 of Canadian Nuclear Laboratories' thorough process, that upon successful completion, provides qualified proponents access to a site to construct and operate an SMR.
- The application for a Licence to Prepare Site has been filed with the Canadian Nuclear Safety Commission (CNSC), the organization that regulates all nuclear activities in Canada.
- An environmental assessment (EA) has been initiated by the federal government. GFP is undertaking thorough studies and consultation in accordance with the requirements of the EA process.
- The CNSC will render a decision on the scope GFP shall consider for the EA for the proposed project, expected in spring 2020.
- Indigenous community and public engagement will continue to be a priority throughout the project.

## Why SMRs? Why This Project?

SMRs are a type of nuclear reactor designed to be smaller in size than a traditional reactor. They can be factory-constructed and delivered to site already fueled.

GFP's project will demonstrate:

- Safe and reliable production of energy using proven nuclear reactor fundamentals and features
- Innovative design that can eliminate the dependency on diesel fuel for energy production in remote areas; in Canada, this is hundreds of communities
- Support for reducing Canada's carbon footprint, as SMRs produce energy that is virtually emissions-free
- Supply of baseload power - 24/7, 365 days a year - which can complement renewable generation, such as wind and solar
- Value of SMRs as a cost-effective option to solve energy challenges in heavy industries
- Simple and scalable deployment potential for remote communities and for mining companies
- Operational capacity; designed to operate for 20 years without refueling
- Job creation and the sustainment of Canada's nuclear supply chain

## Who's Involved?



- Owner and project proponent



- Developer and supplier of the Micro Modular Reactor™ (MMR™) SMR technology



- Supplier and co-ordinator of the project management, EA, Indigenous and public engagement, and licensing activities



**AECL**  
Atomic Energy  
of Canada Limited

**EACL**  
Énergie atomique  
du Canada limitée

- Owner of the Chalk River site



**Canadian Nuclear  
Laboratories**

**Laboratoires Nucléaires  
Canadiens**

- Manager and operator of the Chalk River site
- Conducting an invitation process to select proponent(s) to construct and operate an SMR(s) on a CNL-managed site