

PHASES
OF THE
FINNISH
PROJECT



BACKGROUND / LEGISLATION

	FINLAND	CANADA
Nuclear power plants	2	4 active sites
Nuclear reactors	5	19
Licensing Body	STUK - Säteilyturvakeskus (Finnish Radiation and Nuclear Safety Authority)	CNSC (Canadian Nuclear Safety Commission)
International Regulation	IAEA (International Atomic Energy Agency)	IAEA (International Atomic Energy Agency)
Organization for long-term fuel management	Posiva Oy	Nuclear Waste Management Organization (NWMO)
Guiding Legislation	Nuclear Energy Act 1987 (amended 1994) Nuclear Liability Act 1972 Radiation Protection Act 2018	Nuclear Fuel Waste Act 2002 Nuclear Safety and Control Act 1997 Canadian Impact Assessment Act 2019
Year Deep Geological Repository Decided	1983/1994	2007
Current (Interim) Fuel Storage	“Wet storage” – underwater in cooling pools	“Wet storage” for 10 years in storage bays then “Dry storage” in concrete casks

	POSIVA OY (Finland)	NWMO (Canada)
Year founded	1995	2002
“Final” number of sites considered	4	2 (South Bruce and Ignace)
Year Final Site Chosen	2000	2024
Willingness Decided	Municipal Council Vote (20 For, 7 Against)	<i>Referendum</i>
Education Site Construction	2004	2028
Construction License Application	2012	2028
Construction License Approval	2015	2032
<i>Estimated Storage Start Date</i>	2024/2025	2043

PHASES OF THE PROJECT

Finland



Canada



STUDIES

FINLAND

Geological surveys

- Drilling and Excavation
- Bedrock Modelling
- Biosphere Studies (e.g., climate change, impacts of sea level change, land use changes in the area)
- Groundwater Mapping

In Situ Final Disposal Testing

CANADA

Geological Studies

- Borehole Drilling and Geoscience Field Work

Seismic Studies

Baseline Environmental Studies

- Local Hydrology and Water Quality
- Local Geology including Groundwater and Soils
- Local Atmospheric Conditions
- Local Terrestrial Species
- Local Aquatic Species
- Local Avian Species
- Species at Risk
- Ambient Radioactivity

Effects on Surface Water Study

Ecological Effects Studies

Environmental Effects Study

Logistics of Spent Fuel

Willingness Study

STUDIES

FINLAND

Socio-Economic Impact

Infrastructure of the Area

CANADA

Socio-Economic Studies

- Well-Being Study
- Labour Baseline Study
- Workforce Development Study
- Local Hiring Effects Study and Strategy
- Housing Needs and Demand Analysis Study
- Land Use Study
- South Bruce Economic Development Project Effects & Strategy
- Agriculture Business Impact Study
- Tourism Industry Effects Study and Strategy
- Regional Economic Development Study
- Fiscal Impacts and Public Finance Study
- Social Programs and Vulnerable Populations Study
- Emergency Services Study
- Economic Development Study on Youth
- Local/Regional Education Study
- Recreation Master Plan

Infrastructure

- Aggregate Resources Study
- Local Traffic Study
- Road Conditions Study
- Infrastructure Baseline and Feasibility Study
- Community Health Programs and Infrastructure Study
- Effects on Recreational Resources Study