



Case study 04

Puvirnituk PUK2

Thermal Generating Station

Hydro-Québec's PUK2 project replaces the existing off-grid thermal power plant in the Northern Village of Puvirnituk with a new facility, scheduled to begin operation in 2026.

Client: Hydro-Québec
2021 – Ongoing



Climate and Energy

Replaces the existing off-grid thermal plant with a more efficient power facility

New generators designed to reduce fuel use and carbon emissions compared to the current plant

Phased integration of renewable energy to reduce long-term reliance on diesel, targeting >50% renewable electricity supply



Reliability and Resilience

Improved power reliability for an isolated northern grid

Hybrid system combining efficient generators, solar power, and future wind and battery storage



Air Quality and Noise

Significant reduction in noise and local air pollution within the community

Improved living conditions and overall environmental quality for residents



Community

Ongoing consultation with client (local community relations), regional authorities, and residents

Integration of artwork by a local Inuit artist on the building façade, developed in consultation with the client and reflecting local culture and identity