

# Micro-Grid Power System Controller R&D Project

## \$10 million Project with support from NRCan

### Client

**M'Chigeeng First Nation**

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**Location:**

**Manitoulin Island**

**3G Energy Team:**

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**Project Dates:**

2025-2028



### PROJECT DESCRIPTION

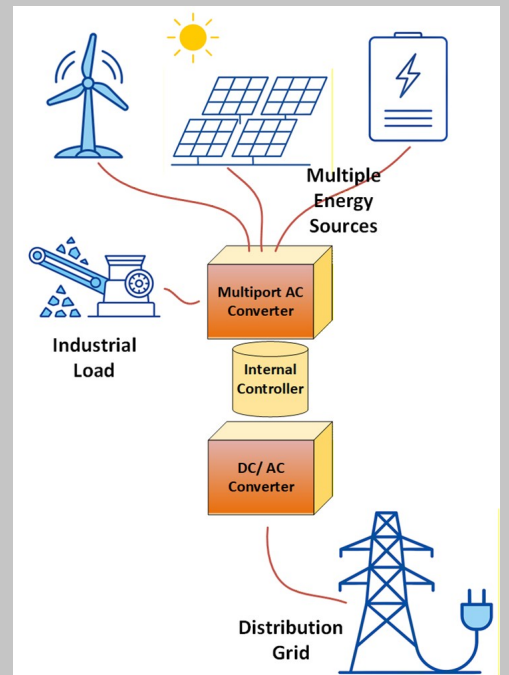
M'Chigeeng First Nation (MFN) teamed up with Adaptr Inc to undertake research and development of a new form of controlling energy flows on weak rural grids and remote communities.

3G Energy was the catalyst to the inception of the project concept in 2021.

The goal is to create a new energy control appliance that is capable of managing multiple flows of energy, including grid energy sources, storage resources, local BTM supply sources, as well as heavy industrial loads. This device will be operational at the TRL 7 and TRL8 levels in 2026-27 and there is a goal of a TRL 9 deployment in field conditions in 2028. The value proposition is to create opportunities for heavy, pulsing industrial energy loads on weak rural distribution grids. This could be breakthrough technology allowing job creation and carbon emission reductions where normally grid fragility forbids the connection of industrial loads on distribution grids.

3G Energy is engaged by M'Chigeeng First Nation as Owner Engineer responsible for oversight on the work being undertaken by Adaptr Inc under the NRCan Smart Grid Development R&D support program.

3G Energy is further responsible for determining commercial feasibility and contracting of the end product in an industrial setting. An industrial offtake partner is available and is looking forward to the initial deployment.



### Anticipated Scope of Work:

- ◆ Feasibility Studies (ongoing)
- ◆ Oversight on R&D expenditures and technology development
- ◆ Assistance with contracting the Field Unit once the technology is proven.
- ◆ Assistance with Financing Arrangements
- ◆ Construction Management & Commissioning
- ◆ Loan Reporting
- ◆ O&M Oversight