

Lower Fort Garry National Historic Site



LOCATION: Selkirk, MB

DESIGN TEAM: Mechanical Consultants
MCW/AGE Consulting
Professional Engineers

Electrical Consultants
MCW/AGE Consulting
Professional Engineers

Client
Public Works & Government
Services

PROJECT DESCRIPTION:

This was a Parks Canada demonstration project funded by the Federal Government in order to showcase energy efficient and sustainable design technologies. The project consisted of a solar wall for passive pre-heating of outside air, photovoltaic panels interconnected to the Manitoba Hydro power grid, heat recovery ventilators, closed loop heat pumps, a controls upgrade, and solar light tubes.

The Visitor Reception Centre was funded to provide needed improvements to the Centre and to become a 'demonstration project' to highlight new and emerging energy efficiency technologies. On this project a patio was constructed to extend the function of the space and improve rental revenues to partially offset the capital investment. Translucent photovoltaic panels were installed in lieu of a roof. The P.V. panels generate 5% of the electrical needs of the building.

A new solar wall preheater was added to the existing building air handling units to provide free heat to the cold winter ventilation air. This system reduced the building greenhouse gas emissions by 10.2 tonnes per year.

