
NOVA SCOTIA POWER

Finalist: Large Commercial



Date Constructed	2010
Developer / Owner	Nova Scotia Power
Architect / Engineer	WZMH Architects, Emermodal Engineering, M&R Electrical and Mech.
Location	Halifax, Canada

Nova Scotia Power corporate headquarters is a former power generation plant on the waterfront of Halifax harbour. In commissioning the refurbishment of the building to provide new offices, the company specified that the work and final building should demonstrate its environmental responsibility and energy conservation leadership. The project retains and adapts the original concrete-clad steel structure and incorporates a number of sustainability and energy efficiency measures, including a new skin for thermal insulation.

The refurbishment design by WZMH Architects includes a new skin for the entire building. Part of the skin takes the form of large high-performance double-glazed window units with thermally broken frames inserted into openings cut in the existing walls. These carefully sited windows will provide 75 percent of the interior spaces with natural light. The remaining shell wall is having an extra layer of cladding with insulation attached. A new roof also adds insulation and is made from a high albedo white material.

Energy efficiency measures include the use of existing piping to carry seawater from the Halifax harbour for cooling and heating. The building will be the first major use of efficient 'chilled beam' technology in Canada, using seawater rather than air to transport cooling. All rooms will have daylight and occupancy sensors to control lighting and CO2 sensors that will adjust ventilation to suit the number of occupants. Fans and pumps will include variable speeds for non-peak use,



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and there will be heat recovery on the ventilation system. Where there is demolition, most of the materials are being reused or recycled, including steel and concrete.

The retrofitting project vastly improves the aesthetics of what was a large obtrusive disused industrial building, and contributes to the redevelopment of downtown Halifax. There are a number of public facilities integrated within the building, including a conference centre, atrium and food facility. The building will house Nova Scotia Power's staff more efficiently in 18 percent less space and will lower the company's overall environmental footprint, and give it a showpiece headquarters.

Because of the change of use of the building there is no direct comparison for energy savings. However, when compared with a standard Canadian office block of the same size, the architects estimate that the re-skinned building will have half the energy costs. It also expects that the building will pay back its investment in energy efficiency measures in just over eight years. The building is a LEED Platinum candidate – one of the first in Canada.

