

Bruce County Housing Corporation

Location:

Multiple locations throughout Bruce County

Type of Contract:

Energy Conservation and Performance Retrofit

Contract Value:

\$392,000

"Bruce County is very pleased with how Ainsworth conducted the energy audit, compiled the feasibility study, coordinated and executed all energy retrofits, and took ownership of all rebate applications. Communications were very good throughout the process. On behalf of Bruce County, I wish to convey my sincerest gratitude to Amanda Kusick, Account Manager. Her professionalism, hard work and dedication were key to making this a successful undertaking."

-Tony Ban, Bruce County Housing Corporation Maintenance Manager.



Bruce County Housing Corporation (BCHC) provides affordable and subsidized housing for the frail or elderly, people with physical, mental health or developmental challenges and those on low incomes needing assistance in covering rent costs. BCHC currently owns and manages 605 units (including townhouses, apartments, single and semi-detached dwellings) throughout Bruce County, which is located between Georgian Bay and Lake Huron.

As a corporation that seeks to keep its costs low, BCHC was challenged by escalating energy costs and, started looking at ways to further reduce its energy consumption. Tony Ban, Bruce County Housing Corporation Maintenance Manager, explained, "We wanted to find ways to reduce our energy consumption. The challenge is that a large portion of the costs relate to the private living areas and individual tenants control the lighting and heating in their own units. We decided to focus on the common areas and the elements we could control such as lighting and heating in the hallway, and laundry and game rooms."

This meant looking at how to improve energy use in the common areas of 21 buildings in Kincardine, Saugeen Shores, Tobermory, Brockton and other towns across Bruce County. As a first step, Ainsworth conducted an energy audit of all buildings (which included identifying and detailing existing systems), completed an energy analysis and recommended the most effective energy conservation measures to help BCHC realize its energy goals within the set budget parameters.

To help stretch the budget further, Ainsworth applied for, and received, grants on behalf of the County from NRCan and Greensaver.



To reduce lighting-related energy use, the buildings were retrofitted as follows:

- The 20W T12 lamps and magnetic ballasts were replaced with 17W T8 lamps and low ballast factor (LBF) electronic ballasts.
- The 40W & 34W T12 lamps and magnetic ballasts were replaced with 32W T8's and low ballast factor (LBF) electronic ballasts.
- The old low efficacy fixtures were replaced with high efficacy fixtures with T8 lamps and low ballast factor (LBF) electronic ballasts.
- Light fixtures were repositioned to enhance lighting levels while reducing overall consumption.
- Incandescent Lamps were replaced with Compact Fluorescent Lamp, and even though the CFLs are lower wattage, the ambient light was maintained at similar lighting levels.
- The Parabolic Aluminized Reflector (PAR) lamps were replaced with more efficient halogen lamps.



To address the heating issue, the existing wall-mounted thermostats were replaced with programmable thermostats and controllers were added to the electric baseboard heaters. The controllers automatically shut off the baseboard heaters when the outside temperature rises above an established balance point, eliminating needless energy consumption.

When it came to moving forward with the installation, it was critical to BCHC that the work not disrupt the lives of their tenants. To ensure that elderly residents, and those with mental or physical disabilities, were not surprised or inconvenienced unnecessarily, Ainsworth worked closely with BCHC's housing staff to coordinate the work.



Said Ban, *"This project required solid coordination skills because the 21 facilities are spread across the county and Bruce County encompasses over 4000 square kilometers... but Ainsworth took this in stride and the work was completed according to schedule, with minimal disruption to our residents."*

"Although our post-work assessment is not scheduled until the fall, we anticipate annual savings of about \$46,000."

-Tony Ban, Bruce County Housing Corporation Maintenance Manager.

