

In 2007, the province of British Columbia introduced legislation to reduce the province's greenhouse gas emissions by 33 percent below 2007 levels by 2020 and require government operations to be Carbon Neutral by 2010.

BC Housing is the provincial agency that develops a wide range of subsidized housing options across British Columbia and the government's climate action goals have a direct effect on the way it develops new projects. BC Housing intends not only to meet the government's greenhouse gas emissions reduction target, but to exceed this goal and reduce greenhouse gas emissions by 50 percent by 2020.



BC Housing

Housing Renewal Partnership

In 2007, BC Housing retained Ameresco Canada to develop an asset plan to help quantify the level of investment required to maintain the existing portfolio of assets over the long term. The contract has since expanded and today, BC Housing and Ameresco Canada are working together to 'Enhance the Quality of Resident Life'. Ameresco Canada is currently implementing measures proposed in the asset plan using a design/build model and will manage all aspects of the project implementation on a turnkey basis while guaranteeing the resultant energy savings.

Step One

In 2008, a database was created for BC Housing's entire directly managed properties using Ameresco's Asset Planner™ software. Using templates and models within Asset Planner™, along with the collection of known information about each property, a comprehensive calculation of current (deferred) and projected renewal requirements for each site (by building and component) for the next 30 years was generated.

Step Two

In 2009, an onsite validation of all identified component renewal events predicted for the next five years was performed. These validated results were then used by BC Housing's Asset Management team to support their long-term renewal funding need to senior management. The site validation was done in parallel with an energy audit to identify efficiency and greenhouse gas emissions reduction opportunities. The results of these two parallel audits resulted in a comprehensive menu of efficiency and facility renewal "measures" that BC Housing could select for implementation on a priority basis with available funding.

BC Housing was able to take full and immediate advantage of the federal/provincial stimulus funding by not only having a prioritized and validated scope of work to implement but also a partner in place to enable immediate start-up.

Step Three

The implementation of the federal/provincial Housing Renewal Partnership began in October 2009 and includes the retrofitting of several proposed measures as outlined in the Asset Plan.

Unique to this project, and worth noting, is Ameresco Canada's client-designed tenant engagement and training program.

Working with tenant leaders and BC Housing site staff, Ameresco's in-house trainers provide environmental education and construction updates, and launch building-wide campaigns to encourage adoption of conservation behaviours. Engaging tenants contributes to program buy-in, reduces wasteful consumption, and increases savings.

The Housing Renewal Partnership is expected to be completed by March 2012 in order to comply with the federal/provincial stimulus funding rules.

Proposed Measures

- Tenant engagement program
- Lighting upgrades
- Boiler replacements
- Domestic hot water upgrades
- Building automation systems
- Water conservation (including toilet replacement)
- Furnace to heat pump conversions
- Solar hot water systems
- Window replacements
- Roof replacements
- Envelope repairs
- Interior upgrades
- Security system upgrades
- Landscaping upgrades

Estimated Project Savings

- Annual utility savings: \$1.1 million
- GHG reductions: 3,048 tonnes (34% reduction)

Project Highlights

- Project value: \$62,113,000
- Number of units: 2,865
- Number of sites: 33
- Average \$/unit: \$21,687

Project Timelines

- Start date: October 2009
- Anticipated completion date: March 2012



BC Housing

For more information about Ameresco and Better Housing™ please contact Craig Piercey at 1-888-483-7267. Visit us online at www.ameresco.ca.