

Surrey housing complex becomes model for energy efficiency

Greenbrook boasts largest solar power installation in Western Canada

BY SCOTT SIMPSON, VANCOUVER SUN JULY 21, 2010 11:12 AM



Photograph by: Vancouver Sun Graphics, Vancouver Sun

A social housing complex in Surrey has become Western Canada's largest solar energy development and model for sustainable housing.

A two-year, \$21.8-million renovation of the 127-unit Greenbrook complex is expected to yield a 90-per-cent reduction in greenhouse gas emissions, provide a more comfortable living environment for residents -- and extend the life of the government-owned town house complex by 30 years.

Housing and Social Development Minister Rich Coleman said that the 1974-built complex was in poor shape when the province "inherited" it from CMHC.

The foundations were leaking, basements were flooding, windows and walls were drafty, heating systems were aging, roofs needed replacing and the building envelopes needed to be sealed.

"When I looked at it initially, I wondered if it was worth saving," Coleman said in a telephone interview on Monday. "In this particular case I thought it was, because in this particular site we had over 250-odd kids living there."

"We thought that if we could make it work for the neighbourhood and improve the product, we should."

Now, he said, it's a role model for the province's Green Building Code.

"We can say go look at this. It's actually working."

On Saturday, Coleman joined residents at a celebration to mark the conclusion of a two-year upgrade of their homes.

High efficiency heat pumps have been installed which are expected to greatly reduce overall heating costs for the complex, and the pump systems have the added benefit of providing cool air in summer.

Tenants have the option of dialing up additional electrical heat, which will be billed individually, but it won't often be necessary -- the heat pumps are efficient down to minus-10 Celsius.

Coleman said residents expect their electricity bills will be substantially lower.

Other features include better perimeter drainage, insulation and building envelope upgrades, as well as solar electricity panels on the roofs of 11 of 28 townhouse blocks.

The solar panels have a rated electricity generating capacity 139 kilowatt hours -- and are expected to provide enough power to replace 10 per cent of what the complex would otherwise pull off the BC Hydro grid.

In fact, BC Housing anticipates that the solar panels will be net producers of electricity at certain times -- such as mid-day in summer -- and will be selling that surplus power to BC Hydro.

Carmanah Technologies, based in Victoria, carried out the solar installation.

"The goal of this project was to replace 10 per cent of the development's energy use with solar -- to meet 10 per cent of the so-called 'global' energy needs," said Richard Wayte, grid tie general manager for Carmanah.

Carmanah has about 50 solar installations across Canada, including a recent contract with the town of Markham.

Wayte believes it's just a matter of time before the private sector adopts solar technology in earnest. "The government has really done its job provincially, federally and municipally with a lot of pilot projects showing that systems can be built, that the technology is here, the infrastructure is here.

"Most of the things moving forward will be commercial and through private investment."

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