

# Go Green with ONPHA!

## Greening Wartime Housing The Now House Windsor 5

**T**hey are a staple of the Canadian residential landscape. The tiny 800 to 1,100 square foot bungalows and 1 ½ story mid-century homes were originally built to provide temporary housing for wartime factory workers and later became attractive accommodations for returning veterans, new immigrants and baby boomers.

With minimal insulation, outdated heating systems, and leaky windows, these homes are not standing up to the energy efficiency of new developments. Contributing an estimated 9.7 million tonnes of greenhouse gases per house annually, the retrofit of wartime homes alone could meet the 3% of Canada's Kyoto Protocol. Enter the Now House Project.

The Now House Project aims to retrofit old drafty, energy-sucking wartime homes into models of efficiency that generate almost as much energy as they produce, providing tangible proof that a home doesn't have to be new in order to be energy efficient.

### The Now House Windsor 5

With 125 wartime houses in their portfolio, Windsor Essex Community Housing Corporation began working with The Now House Project on five homes in the Bridgeview North community. Each home received a slightly different package of energy-saving retrofits. The five different energy reduction models will be monitored over the course of the year to determine which results in the greatest return on investment; conserving energy, reducing operating costs and reducing greenhouse gas emissions.

The lessons learned will be used for potential application to 125 similar homes in their portfolio.

This project demonstrates the proactive thinking at Windsor Essex, allowing them to use the knowledge gained by examining the energy saving results of retrofitting five homes and applying these lessons to the other wartime homes in their portfolio.

### Energy Reduction Improvement Packages

The first home received the basic package of energy reduction improvements that were applied to all five homes as a baseline improvement. The basic package includes air sealing and insulation to reduce air leakage and heat loss, changing lights to CFLs and LEDs, new Energy Star® appliances to reduce energy use, and water saving components including low flow shower heads, faucet aerators and low flow toilets.

These base model improvements are expected to bring all houses up to a minimum of 58% energy reduction.

The other four models will receive additional retrofits such as high efficiency hydronic forced air gas heating systems, high efficiency



*Photo credit: The Now House Project.*

central A/C, heat recovery ventilators, and solar thermal systems.

Each house has received a different package of retrofits to help Windsor Essex determine which mixture produces the best cost-benefit ratio. The energy



Balloons were popped by guests at the Official Opening of the Windsor 5 Exhibition House to demonstrate carbon footprint reductions as a result of the project. Photo credit: The Now House Project.

efficiency of these five homes will be monitored over the next year to help determine how the improvements on the \$10,000 retrofit differed from the \$20,000 retrofit, and so on.

The goal of the Windsor Essex project was not to get a net zero energy home. Rather, "the goal was to model and test five energy reduction models because we do have 125 of these homes. How can we say that we should do this or that with the other homes in our portfolio if we haven't tested it?" says Kari Schofield, Public Affairs Manager, Windsor Essex CHC.

This progressive approach will allow Windsor Essex to empirically discover if Energy Star® appliances do reduce energy cost better than cheaper non-Energy Star® alternatives, and determine how best to move forward with energy saving retrofits to the other homes in their portfolio.

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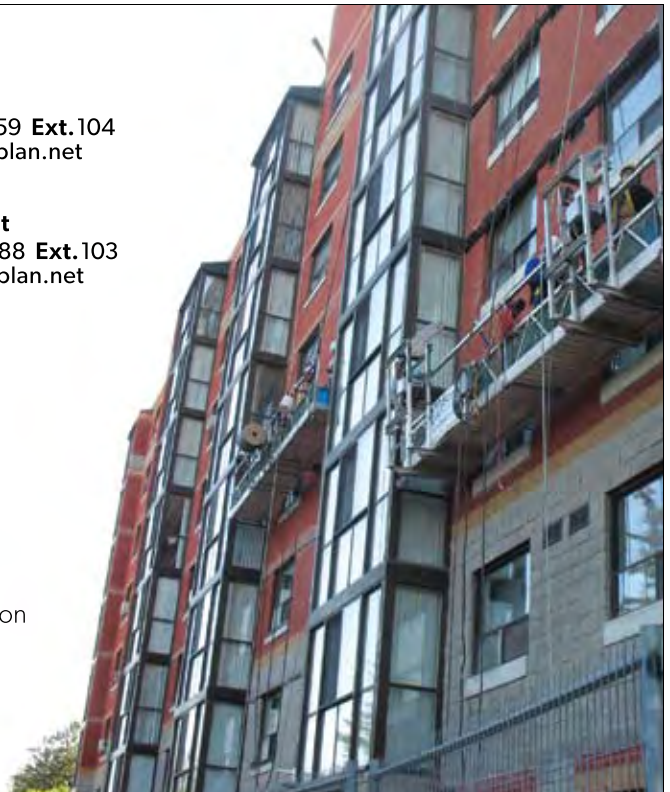
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## Now House Windsor 5

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### Community Awareness

The second goal of the project was to raise community awareness on energy conservation. One of the five retrofitted homes will serve as a demo house for one year, allowing for school trips and resident viewings; educating both Windsor Essex tenants, staff and the broader community on the process of retrofitting for improving energy efficiency.

“We are committed to working with tenants and community partners to make our portfolio greener,” says Jim Steele, CEO Windsor Essex CHC. “The Now House Windsor 5 project gives us valuable experience with implementing energy conservation measures on our existing single-family homes. We are testing five different approaches and plan to use what we learn on future projects and share what we’ve done with the community through open houses”.

In the next edition of “Go Green with ONPHA” we will explore Ottawa Community Housing’s near zero energy cost home.



*Got a Going Green story you would like to share?*

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