Eco-Solar Home Tour 2024

Saturday 1 June Noon to 5 pm

Sundance Deep Energy Retrofit

Tour Day: Sat 1 June
Address:
Hosts: Retrofit Canada
Parking: on street
Energuide Rating: n/a

Summary

- This is the first North American demonstration of a mass produced, Deep Energy Retrofit system. Deep Energy Retrofits are vital to reducing greenhouse gas emissions from our existing buildings to a level our children can live with. It is kind of a big deal.

What will people see and learn about at your home?

- The Benefits of planned comprehensive Deep Energy Retrofits over piecemeal upgrades
- High levels of insulation and air tightness, new retrofit windows on existing affordable housing

What are the main things people will see at your home?

- People will see finished retrofits with all new exteriors on most of the fifteen buildings.
- Work in progress on at least one other building
- Posters with drawings and photos showing all of the system details
- Posters showing the construction sequence and workflow
- Illustration and explanation of the digital capture process

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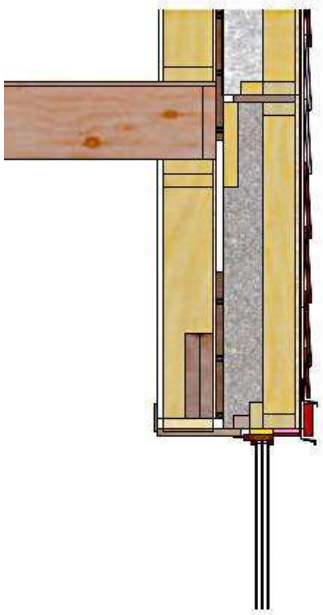
Why is this home on the tour?

Forty percent of global greenhouse gas emissions come from buildings. That number needs to come down to nearly zero as soon as possible. We can build only net zero energy buildings from now on, but we still need to retrofit the 80 or so percent of remaining buildings we will be using in 2050. Energiesprong in the Netherlands has pioneered industrial scale, affordable, net zero energy retrofits. Energiesprong starts with the digital capture of the existing building's exterior dimensions. This is used to generate CAD drawings of the building that are then used to design wall and roof panels that are built in off-site factories. These panels arrive on site with new insulation, new cladding, and new energy efficient windows ready to be fastened to the outside of the existing building to provide a sealed super-insulated enclosure in a matter of days. This project is the first attempt to implement the Dutch Energiesprong approach in Canada, and perhaps North America. This project should be nearing completion in 2024.



What features save on energy costs?

- New prefabricated exterior wall panels that add R30, new high performance fibreglass windows, air tightness, and new cladding in one operation. The panels are designed to seal together to create air-tight buildings ~0.75ACH50.
- New roof sections adding R50 of additional attic insulation and sealing off air leakage
- New heat recovery ventilators
- The heating energy of the buildings will be reduced to net zero ready energy levels. Furnaces are being replaced with Daikin air source heat pumps. Hot water tanks are being replaced with air source heat pump water heaters. Gas lines are being disconnected thereby saving the annual meter cost (~$650/year).