

# Welcome to today's CHBA Net Zero Webinar!

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# Housekeeping

- **This webinar is being recorded.** CHBA Members can access the Net Zero webinar archive (recording + slide deck) at [www.chba.ca/NZwebinars](http://www.chba.ca/NZwebinars).
- **You will be in “listen-only” mode** for the duration of the webinar.
- **After the presentation we will have time for questions. Please use the question section of the dashboard** throughout the webinar and your questions will be relayed to the presenter(s).
- You can **change your screen view** by clicking on the  View **icon** in the top right corner, and by dragging the slider between sections to make the slideshow and webcams smaller/larger.

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- High Performance Building Enclosure Systems

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## SILVER



## BRONZE





# Our Next Webinar

December 15, 2022 from 10:30-11:30 PT / 1:30-2:30 ET

## Learn about the growing demand for EV chargers in new homes



Presented by:

**Shannon Bertuzzi, Director of Builder Markets, Reliance Home Comfort, and  
Tyler Corso, Product Manager, B2B Channels, Reliance Home Comfort**

With over 40% of buyers in the new housing market considering an electric vehicle (EV) charger a “Must Have,”\* EV chargers can increase the desirability of new homes.



In this webinar you will learn how to get ahead of the market with pre-installed EV chargers in your new homes. With seamless ordering and delivery, find out how you can bundle your EV charger with other mechanical equipment from Reliance to simplify equipment sourcing plus receive a generous allowance.

Discover how your homeowners can receive competitive rental rates and access to in-home service experts post move-in with 24/7/365 call support.

*\*CHBA / Avid Ratings Canada 2021 Homebuyer Preference Study.*

Learn more and register at [chba.ca/NZwebinars](https://chba.ca/NZwebinars)





# Today's Webinar

November 17, 2022 from 10:30-11:30 PT / 1:30-2:30 ET

## How an Exterior Renovation Became a Major Retrofit for Burtch Estates

Presented by:



**Sarah Herb**  
C&EM Program Manager, Residential  
FortisBC



**Carol Suhan**  
Manager, Community Programs  
FortisBC



**Chuck Cullen**  
G.S.C. Project Manager  
Team Construction Management Ltd



**Michelle Allanson**  
President  
Burtch Estates



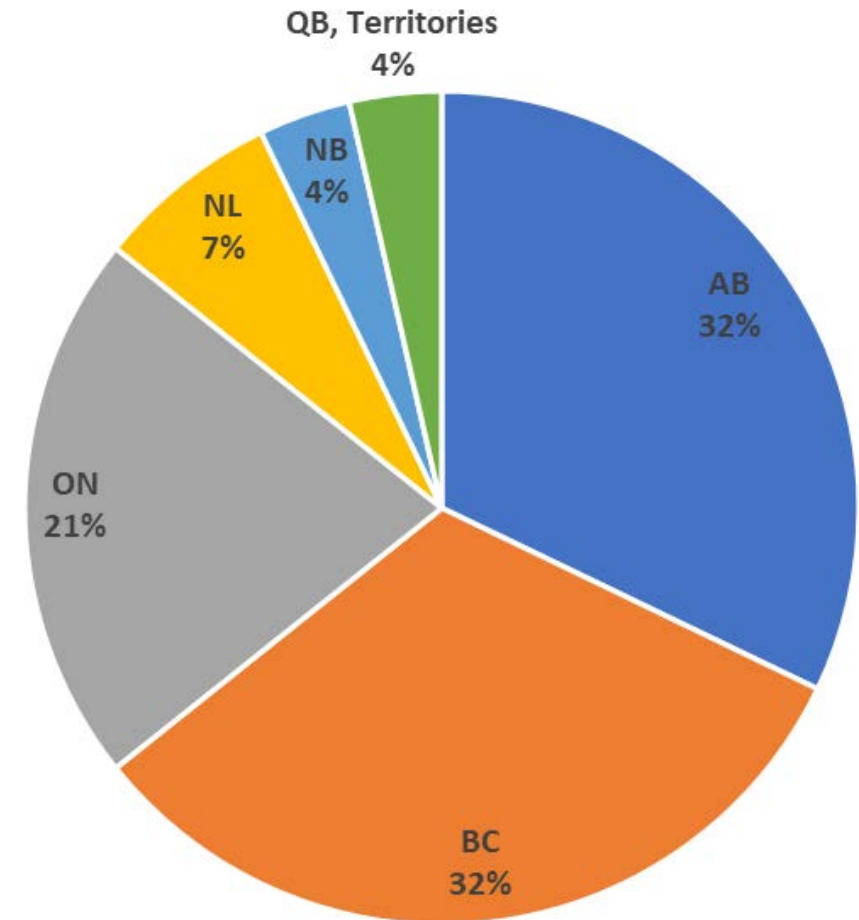
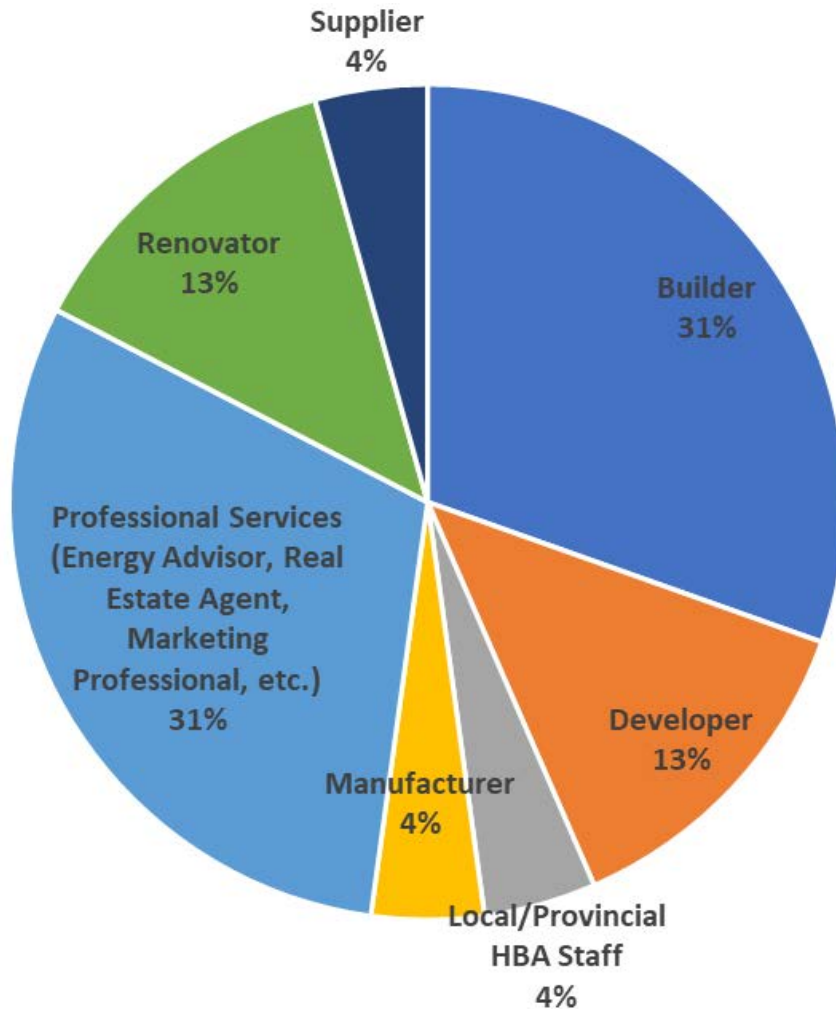
**Lisa van Zanden**  
Vice President  
Burtch Estates

During this webinar, FortisBC's team of experts, along with members of the strata council and the project management company, will discuss how a real-life example of an exterior renovation project turned into a major retrofit, and why leveraging utility rebates plays a key role in making these upgrades more attainable. You will also learn about Deep Energy Retrofits and the role different stakeholders play in a Deep Energy Retrofit project and how to overcome some critical challenges.

Members will be able to access the recording & slide deck at [chba.ca/NZwebinars](https://chba.ca/NZwebinars)



# POLLS



# How an Exterior Renovation Became a Major Retrofit for Burtch Estates



# Territorial acknowledgement

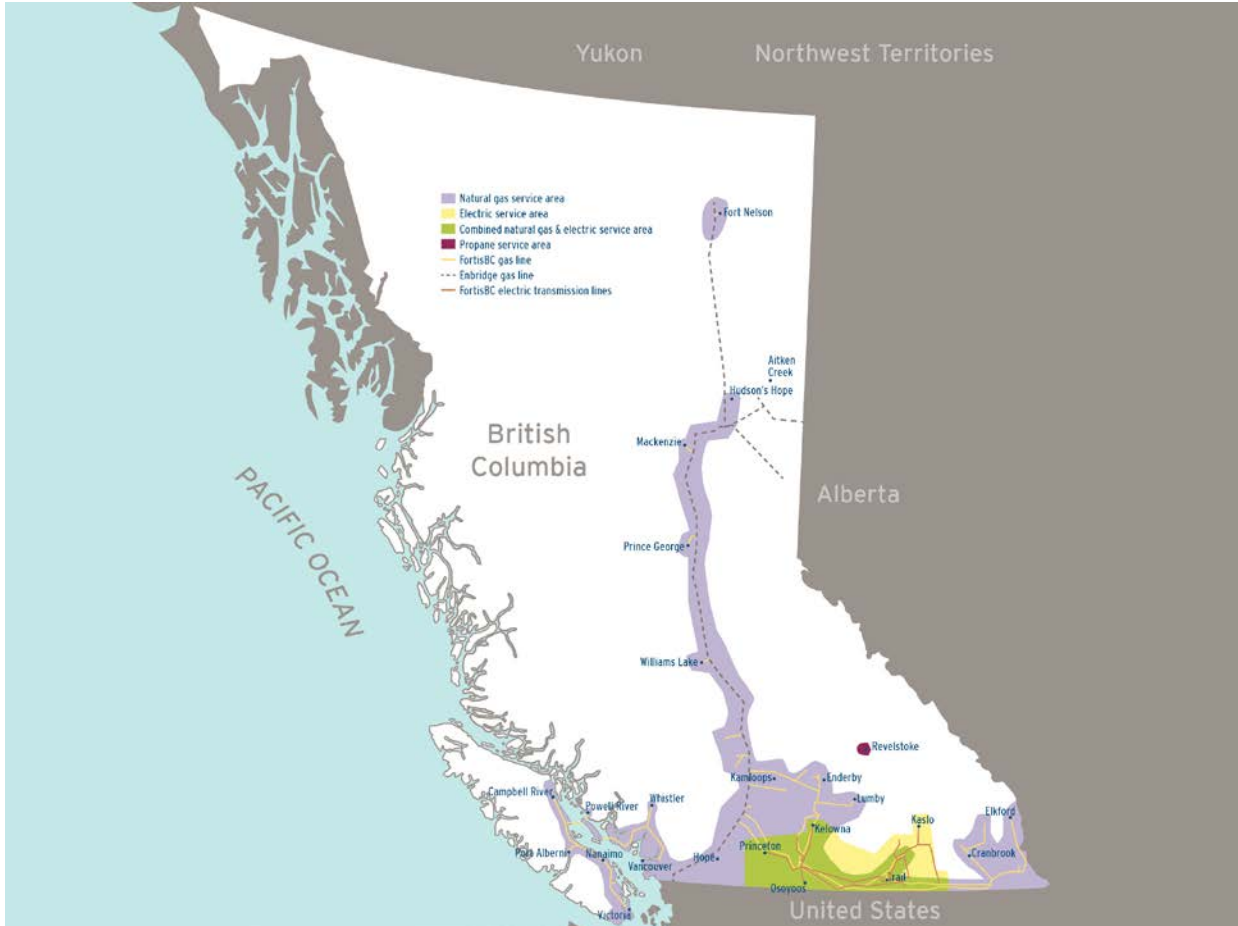
*Sarah Herb - FortisBC*

We respect Indigenous Peoples on whose Traditional Territories we live and work. We gratefully acknowledge the wisdom shared with us by Indigenous Peoples, including community members, employees, economic partners, corporate trainers and Elders. It is through our relationships that we have learned and continue to learn how to be a good energy partner to Indigenous Peoples. We extend our appreciation for the opportunity to live and learn on these Territories.



# Who is FortisBC?

Sarah Herb - FortisBC



We're a Canadian-owned, B.C.-based regulated utility with more than 2,600 employees across the province.

We proudly deliver Renewable Natural Gas,<sup>1</sup> natural gas and electricity to 1.2 million customers in 135 BC communities, and 58 First Nations communities across 150 Traditional Territories.

<sup>1</sup>Renewable Natural Gas is produced in a different manner than conventional natural gas. It is derived from biogas, which is produced from decomposing organic waste from landfills, agricultural waste and wastewater from treatment facilities. The biogas is captured and cleaned to create carbon neutral Renewable Natural Gas (also called biomethane).

# Conservation and Energy Management

*Sarah Herb - FortisBC*



We offer conservation and energy efficiency programs for residential, indigenous, income qualified customers commercial, and industrial customers.

## Notable numbers

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Through the energy saving measures installed in 2021, we expect to see a reduction of more than

**750,000**

tonnes of CO<sub>2</sub>e over the lifetime of these measures,<sup>1</sup> which is the energy equivalent to removing almost

**18,000**

gas-powered cars from the road permanently.<sup>2</sup>



# Looking towards Deep Energy Retrofits

*Sarah Herb - FortisBC*

- FortisBC has committed to transform BC's energy future by helping customers lower their greenhouse gas (GHG) emissions and supporting the [Province's Roadmap to 2030](#)
- Improving the efficiency of existing building stock will be critical to achieving reduced GHG emissions.
- Currently, we offer multiple rebates for existing homes including building envelope and mechanical systems through the Home Renovation Rebate Program

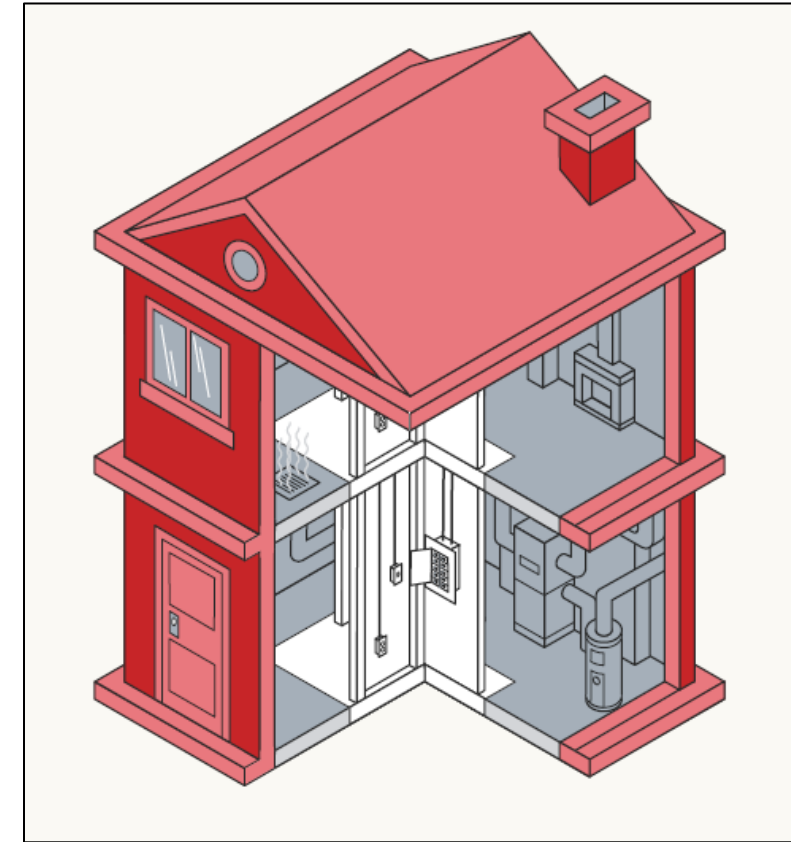


# Looking towards Deep Energy Retrofits

*Sarah Herb - FortisBC*

A Deep Energy Retrofit of a home or building is a retrofit in which the envelope and mechanical energy systems are significantly improved so the home/building's overall energy consumption and greenhouse gas (GHG) emissions can be reduced by 50% or more.

- Takes a building envelope first approach
- Looks for opportunities to downsize energy systems



THE ENVELOPE



MECHANICAL SYSTEMS

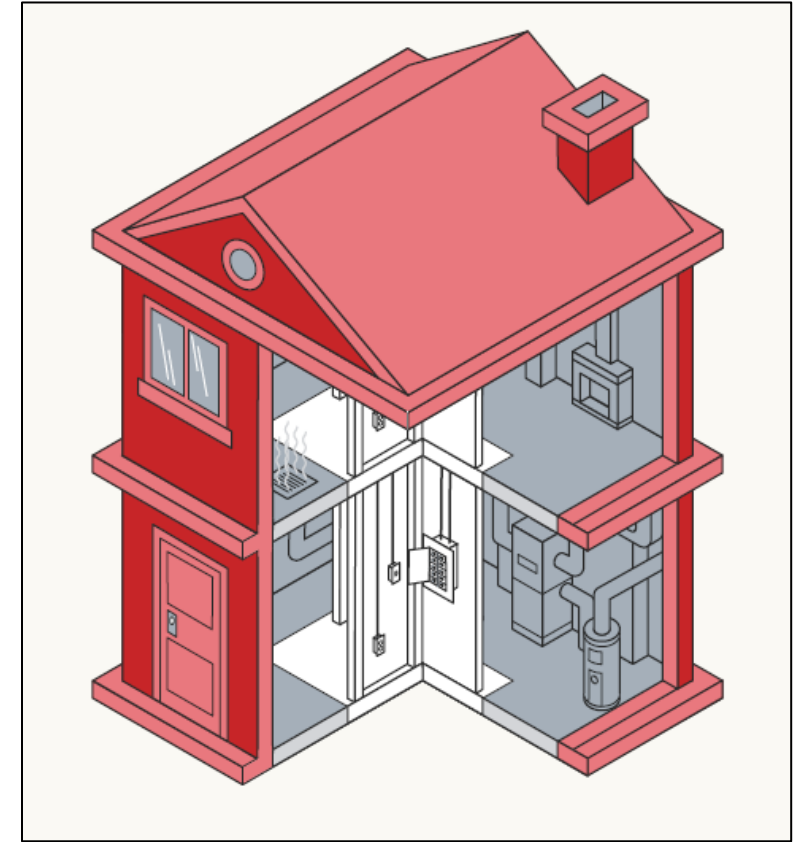


ELECTRICAL SYSTEMS

# Looking towards Deep Energy Retrofits

*Sarah Herb - FortisBC*

- Residential Pilot currently underway
  - 20 homes were selected across BC
  - Currently in the detailed design phase with construction to start early 2023
- Looking to support other renovation projects through NRCan's Local Energy Efficiency Partnerships (LEEP) and CHBA's Net Zero Ready Program



THE ENVELOPE



MECHANICAL SYSTEMS



ELECTRICAL SYSTEMS



# What do we need to know?

*Sarah Herb - FortisBC*

- “How low can you go?”
- How do we make Deep Energy Retrofits scalable?
- What implementation challenges might there be?
- How do we achieve market acceptance?
- How do we overcome the financial barriers?
- How do we ensure there is enough industry capacity ?



# Case study - Burtch Estates

# Who is Burtch Estates?

*Michelle Allanson & Lisa van Zanden - Burtch Estates*



- Burtch Estates was built in 1981
- 58 units owned by a diverse group of families, retirees, couples, singles and investors.
- Each unit has the same interior floor area and therefore hold equal unit entitlement.
- Centrally located in the heart of Kelowna

# Why was this property retrofitted?, what was the issue and motivation?

*Michelle Allanson & Lisa van Zanden - Burtch Estates*



Our 40 year old building had little to no up keep and needed an exterior upgrade for both safety and value

## Issues:

- Deterioration of windows, doors and siding,
- Lack of insulation and sound barrier
- Pest infestation and fire risk

## Motivation

- Financial Investment
- Market value
- House Pride
- Added bonus for energy efficiency



# What role did the strata and individual owners play on this retrofit?

*Michelle Allanson & Lisa van Zanden - Burtch Estates*

## Strata Role

Strata was responsible for every aspect of presenting this project to the owners and finding the resources to make it happen:

- Information meetings for owners (ongoing)
- Financing
- Architect design
- Development permit
- Tender/Contract
- Legal/Strata resolutions
- Construction meetings

## Owners

Some owners opposed the entire retrofit for many reason but cost being the leading concern.

- $\frac{3}{4}$  vote
- Levy payment or Financing plan



# Construction challenges/successes

*Chuck Cullen- Team Construction Management Ltd.*



- COVID DELAY
- 40+year old buildings
- Residents living in their units (most were great)
- Tight budget plus material / labor cost increases
- Limited access / staging and parking areas on and off site



# Construction challenges/successes

*Chuck Cullen- Team Construction Management Ltd.*



- Skilled labor shortages / material shortages
- Strata has been amazing to work with
- Homes are the most energy efficient they have ever been which increases value to all homes.
- All rot was remediated and inspected by a structural engineer
- Our EA at ROV has been fantastic, FORTIS has been proactive
- Great team effort all the way around

# FortisBC support

Carol Suhan - FortisBC

- Provided project design support:
  - ROV Engineering Consultants to determine airtightness of units, best options for efficiency improvements
  - Collaborated with design team, GTA (now Stantec), and Team Construction
  - Supported Strata to get quotes on efficient equipment (windows and doors, fireplaces)
- Communication support with Strata members
  - Survey to determine strata members levels of interest – and efficiency potential
  - Strata meeting presentations





# FortisBC support

*Carol Suhan - FortisBC*

Providing rebates for energy evaluations and building envelope improvements

- Airtightness
- External insulation
- Windows and doors
- Approximately 60% of costs (approx. \$450,000)

Encouraged homeowners to make improvements to their own homes

- Furnaces
- Water heaters
- Basement and attic insulation



# Q & A

# Thank you!



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