

# RESIDENTIAL RETROFIT ACCELERATION PROJECT

TRANSITION 2050 – SUMMARY OF STRATEGY  
COMOX VALLEY REGIONAL DISTRICT – SEPTEMBER 29, 2020



HOME PERFORMANCE  
STAKEHOLDER COUNCIL

CityGreen  
solutions

# AGENDA

- **Summary Transition 2050 Project**
- **Summary of CVRD Residential Retrofit Acceleration Strategy Document**
- **Q&A**

# Transition 2050: Residential Retrofit Acceleration Project

**Funding:** Federation of Canadian Municipalities

**Project Delivery:**

- City Green Solutions
- Home Performance Stakeholder Council

**Project Goal:** To mobilize **government & industry collaboration** and **accelerate energy- and greenhouse gas-reduction strategies and projects** to double the emissions reductions achieved from residential retrofits in program communities in the short term establishing a clear path to achieving medium-term and 2050 targets.

**Project Partners:**

- Cowichan Valley Regional District
- Capital Regional District
- City of Victoria
- District of Saanich
- Township of Esquimalt
- District of Central Saanich
- City of Campbell River
- Regional District of Nanaimo
- **Comox Valley Regional District**

# Transition 2050: Residential Retrofit Acceleration Project



## Objective:

To identify a set of strategies and actionable residential retrofit acceleration activities that can support the CVRD to meet its GHG Emission Reduction target - 80% reduction below 2007 levels by the year 2050, with a 50% reduction by 2030.

# Strategy Informed By

- CVRD (and Vancouver Island) Contractor Engagement (Workshops & Interviews 2019)
- Assessment of Barriers to Residential Retrofits with Local Contractor Input
- Comox Valley Sustainability Strategy
- Regional Growth Strategy
- CVRD Housing Needs Assessment
- Provincial GHG Emissions Inventory
- Stats Canada Housing Data for CVRD
- Contractor Capacity Database
- GHG Emissions Reduction Targets
  - CVRD
  - Provincial
  - Federal
- Input from CVRD staff

# GHG Reduction Targets

<b>Federal Target</b>	Under the Paris Agreement, Canada committed to reducing its GHG emissions by <b>30% below 2005 levels by 2030</b> . Canada has also stated it will develop a plan to set Canada on a path to achieve a prosperous net-zero emissions future by 2050.
<b>Provincial Target</b>	British Columbia GHG reduction targets are relative to emission levels in 2007 and include reductions of: <ul style="list-style-type: none"><li>• <b>40% by 2030</b></li><li>• <b>60% by 2040</b></li><li>• <b>80% by 2050</b></li></ul>
<b>CVRD GHG Emissions Reduction Target</b>	<b>Long-term target of 80% reduction of GHG emissions from 2007 levels by 2050, with a mid-term target of 50% reduction by 2030.</b>
<b>Residential Retrofit Acceleration Project Targets</b>	<ul style="list-style-type: none"><li>• <b>Double GHG emission reductions from residential retrofits in region by 2022.</b></li></ul>



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# UNDERSTANDING THE BARRIERS

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# Residential Retrofit Acceleration Barriers

## THE BIG & BAD FOUR

**The Scale of the Challenge**

**It's Cheaper for Homeowners  
not to Decarbonize**

**Low Consumer Awareness  
/Acceptance of Solutions**

**Low to Moderate Contractor  
Access/Acceptance/Capacity**

**Other barriers also important, bigish & badish)**

- Rental housing, fixed income and other demographic challenges
- Complexity of retrofit process and hazardous materials disposal
- Psychological Barriers that Limit Climate Change Mitigation



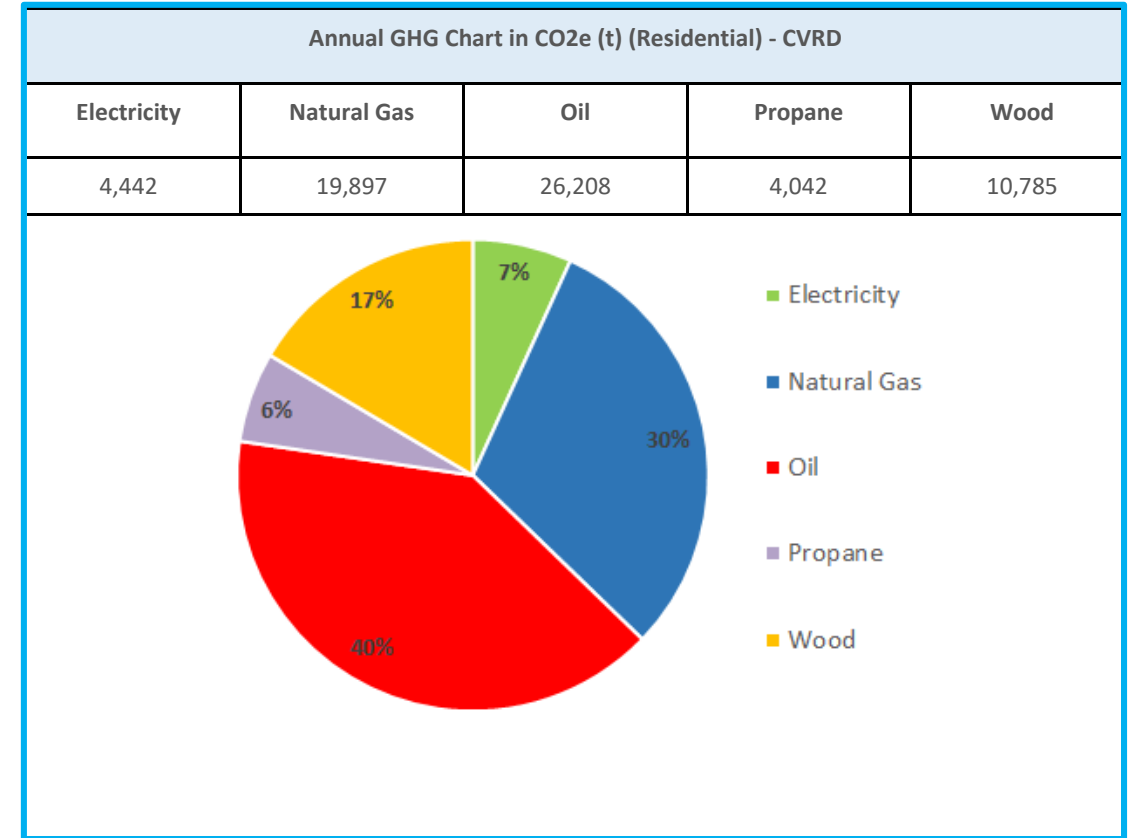
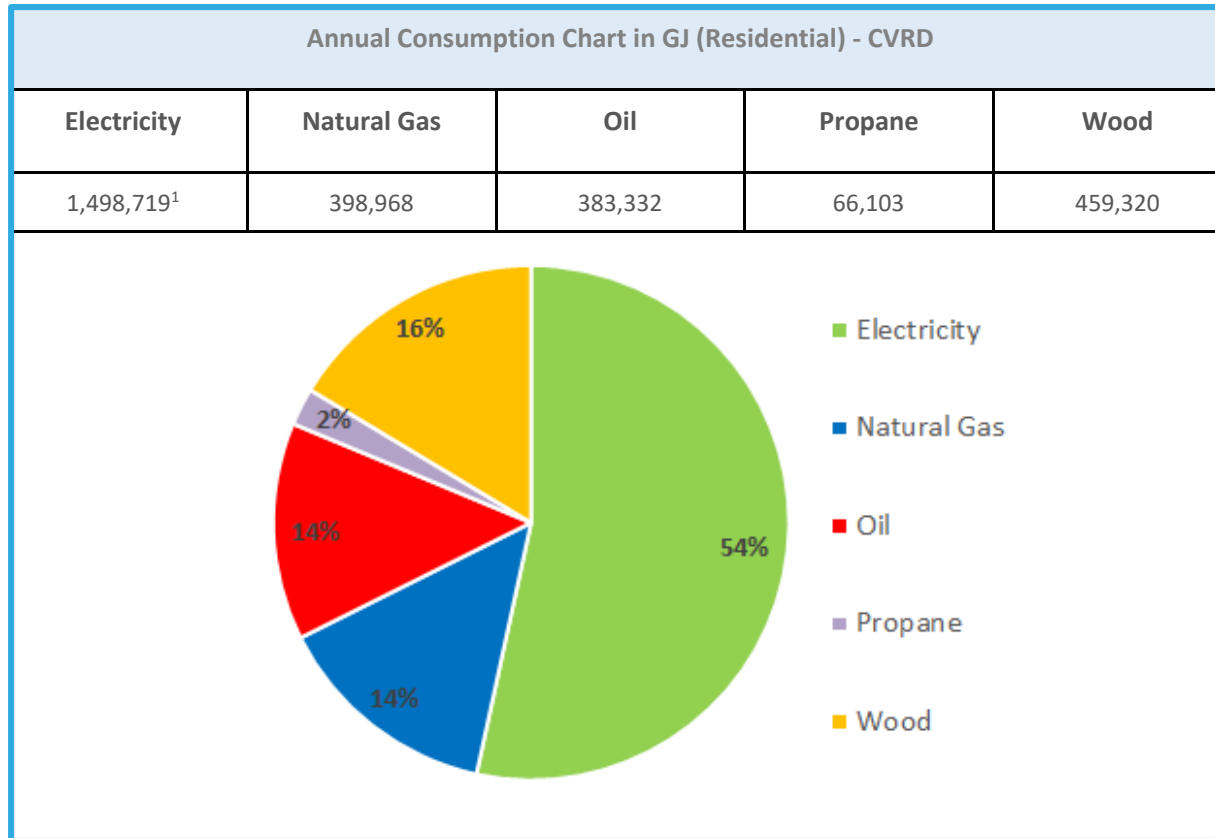
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# UNDERSTANDING LOCAL CONTEXT

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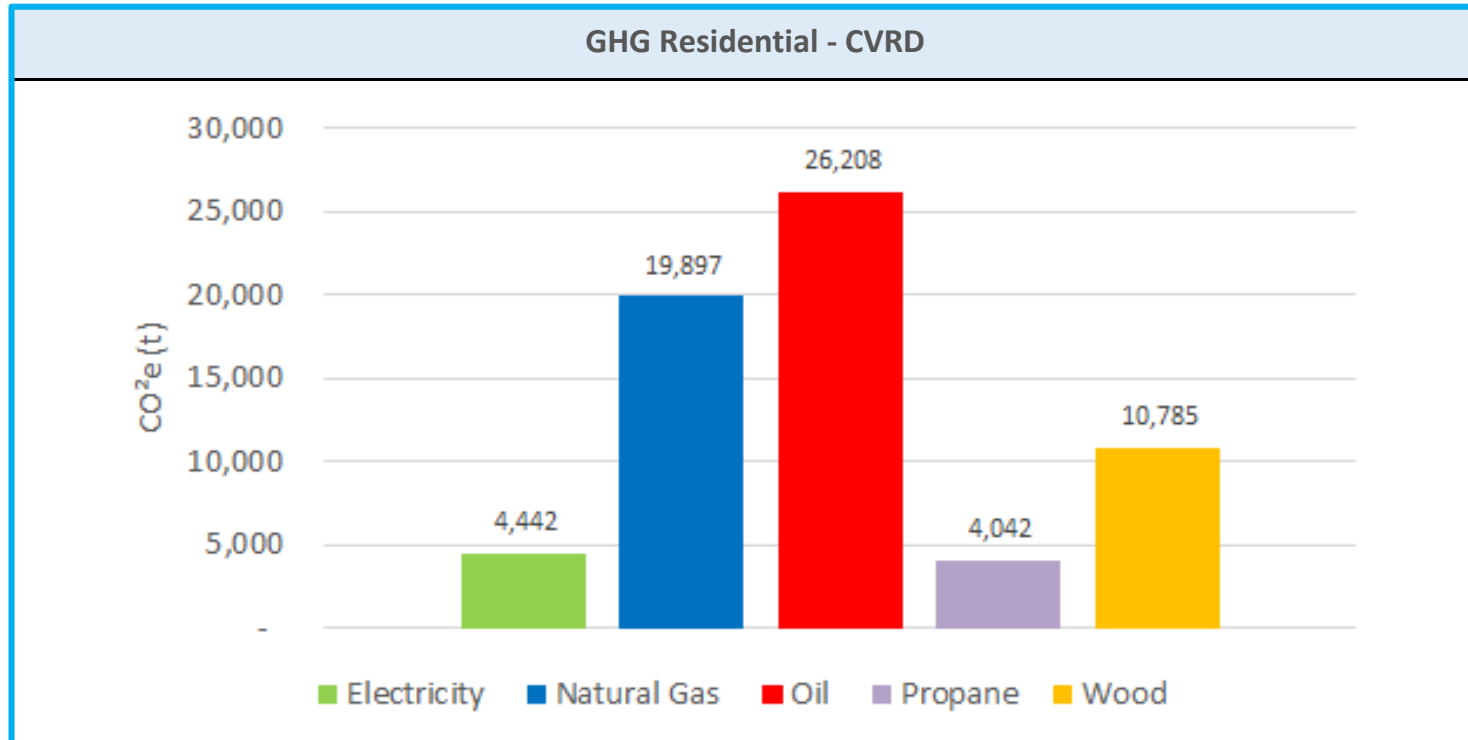
# CVRD

## Energy and GHG Emissions Inventory



Residential use of oil, natural gas, and wood create 56,890 tonnes of CO2e annually.

# How the CVRD Emissions Inventory Can Inform Strategy

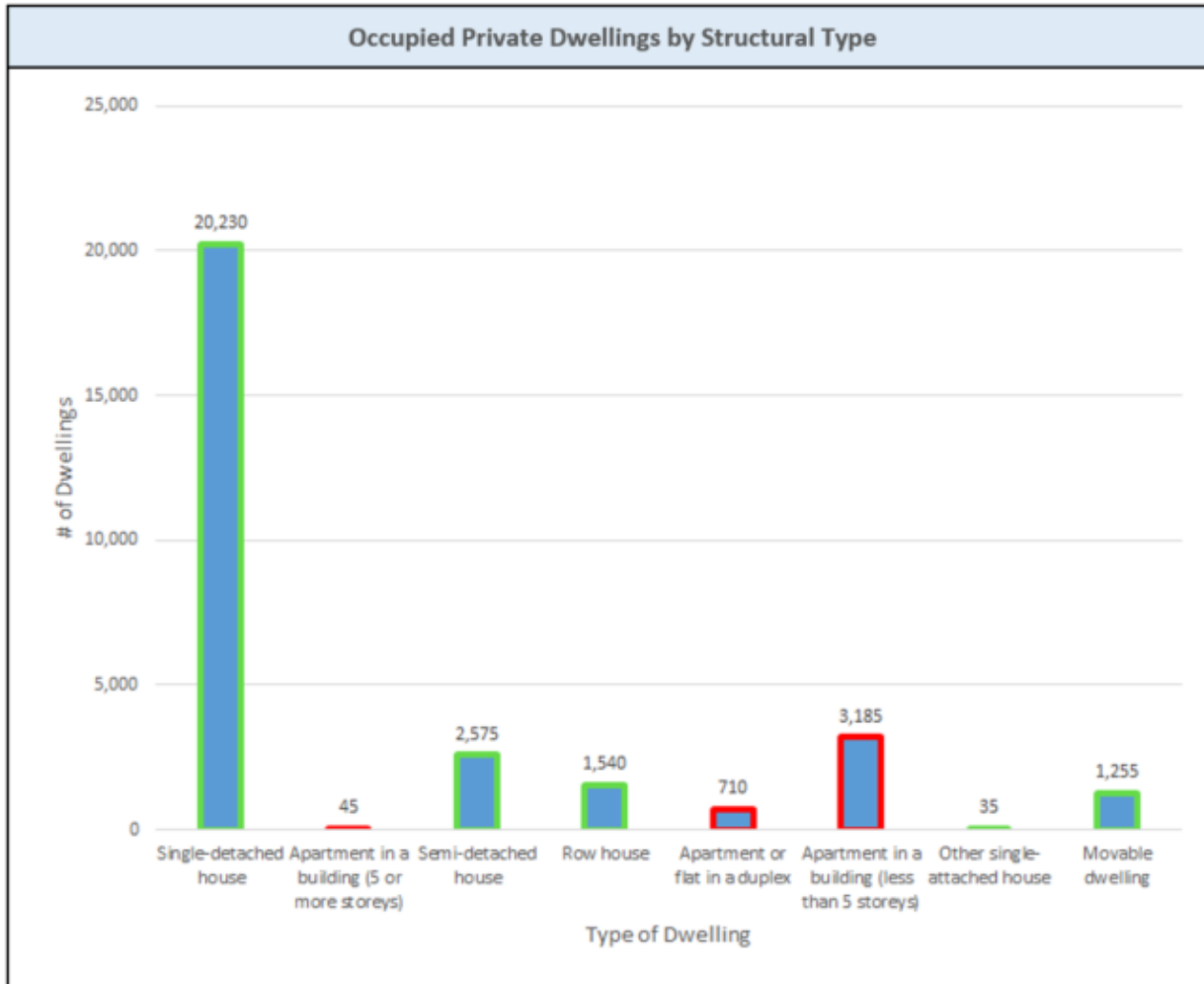


## TARGET HOMES

- #1: Oil heated homes (and propane)
- #2: Natural gas heated homes
- #3: Wood heated homes
- #4: Propane heated homes
- #5: Efficient electrification of electric heated homes

Oil to Heat Pump Incentive Program  
Average Reduction of GHG Per Home: 96.5% (7.25t CO<sub>2</sub>e/year)

# How Dwellings by Structure Type Can Inform Strategy



**TARGET** the 25,635 single-detached homes, semi-detached homes, row homes, other single-attached homes, and movable dwellings

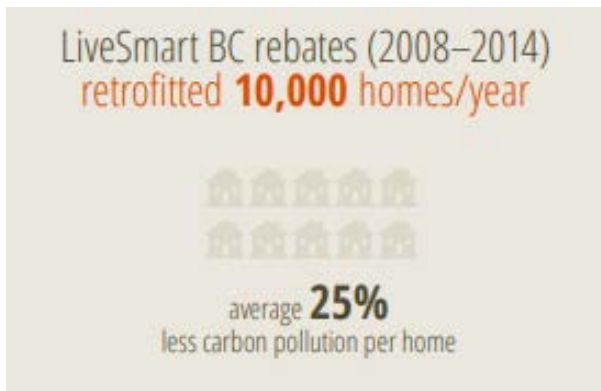
- Rebates available
- ~77% of private dwellings are owner-occupied
- High GHG reduction potential

# TARGET: Annual # Of Home Retrofits?

For BC meeting climate targets =  
Retrofits to **3%**, or 30,000,  
homes province-wide  
**every year** until 2050\*

For Comox VRD: **3%** of Homes =  
**770 Homes** Retrofitted Each Year

~**25,635** single-detached houses, semi-detached houses, row houses,  
other single-attached houses, and movable homes in the Comox VRD.



- 1% = 256 homes
- 2% = 512 homes
- 3% = 770 homes**
- 4% = 1025 homes

# Regional Contractor Capacity

## Residential Retrofit Contractors Operating in the Comox Valley: September 2019

- Good level of existing contractor capacity
- Initiatives to accelerate residential retrofits would:
  - Support business growth
  - Support regional job creation

Notes:

1. Contractors may deliver outside of region
2. Needs updating fore wood heating, electric fireplaces and draftproofing
3. Does not (yet) include general renovators that could provide home energy retrofits

Industry Sector	Business Count
General HVAC	12
Heat Pumps	20
Gas furnace or boiler	11
Oil furnace or boiler	3
Electric furnace	3
Wood Heating	0
Gas Fireplace	3
Electric Fireplace	0
Hot Water Heater	6
Heat Pump Hot Water Heater	0
<u>Draftproofing</u>	0
Windows, Doors	18
Insulation	9
Renewables	1
Misc.	2
<b>Total Unique<sup>33</sup> Businesses</b>	<b>48</b>



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# STRATEGIES

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# Strategy Actions

- Regional Collaboration
- **Establish Baseline and Annual Retrofit Tracking Framework**
- Retrofit Rebate Promotions
- **Consumer Engagement for Low Carbon Home Market Transformation**
- CVRD Housing Needs Assessment Priority
- **Transition Towards a Climate Ready Building Stock**
- Incentives
- **Education**
- Financing
- **Community Retrofit Program**
- Advocacy



# SCALE OF THE CHALLENGE

**Residential Retrofit Acceleration to 3%+ of homes per year will only be achieved by:**

- **Significant and sustained implementation of all viable acceleration strategies and actions.**
- **Delivery by a diverse group of collaborating local, regional, provincial and federal stakeholders who drive strategy implementation.**

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# QUESTIONS AND DISCUSSION

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