



Improving Home Energy Performance

Pilot Project Results


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Goal: Develop Bold, Transformative, Replicable Building Retrofit Programs

Funding to date:

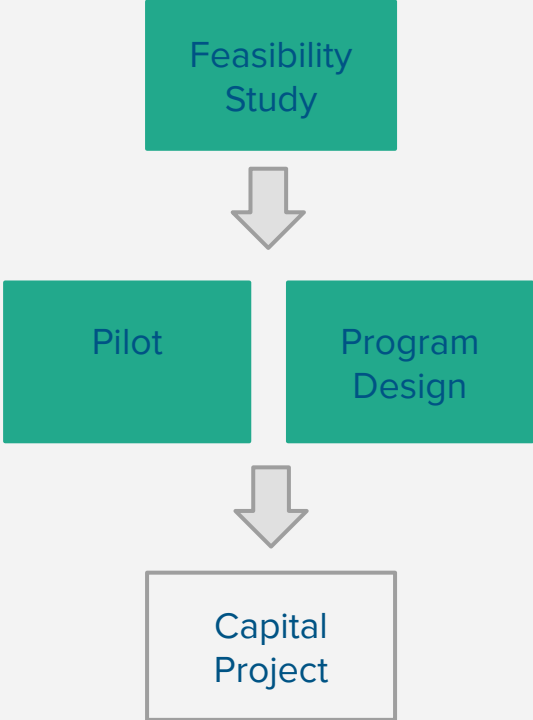
Canada  **FCM**  \$850,000

 **BC Hydro** \$263,000

Homeowners \$800,000+
(revenue 2024)

Community Efficiency Financing

Engaged since 2021





HomeZero 11 Pilot Homes



148,146 kWh of Annual Solar Production

67 GJ of energy & 50 tons of emissions reduced annually



Total contracts value over \$800,000 (including geothermal)



House Age Range 1918 - 2012

Pilot Results

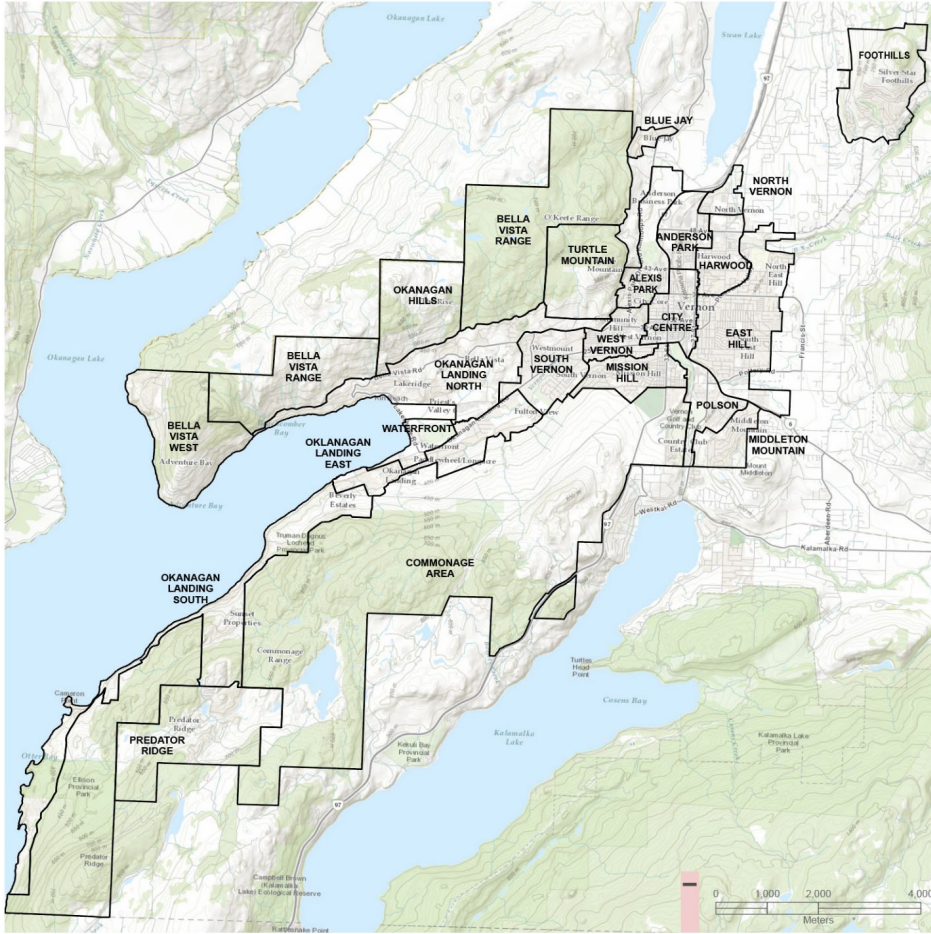
Pilot Home Index	Pre-retrofit Energy (GJ/year)	Pre-retrofit GHG (tonnes/year)	Post-retrofit Energy (GJ/year)	Post-retrofit GHG (tonnes/year)	Energy Reduction (%)	GHG Reduction (%)
1	88	1.9	73	0.9	17.0%	52.6%
2	93	3.3	55	0.3	40.9%	90.9%
3	161	6.5	89	0.6	44.7%	90.8%
4	202	9.2	93	1.1	54.0%	88.0%
5	92	2.1	75	0.6	18.5%	71.4%
6	114	4.5	64	0.7	43.9%	84.4%
7	137	5.6	65	0.5	52.6%	91.1%
8	124	5.3	50	0.2	59.7%	96.2%
9	201	8.2	83	0.6	58.7%	92.7%
10	155	6.5	68	0.5	56.1%	92.3%
11	102	3.1	81	0.6	20.6%	80.6%
Total	1469	56.2	796	6.6	45.8%	88.3%

Summary:

46% Energy consumption reduction

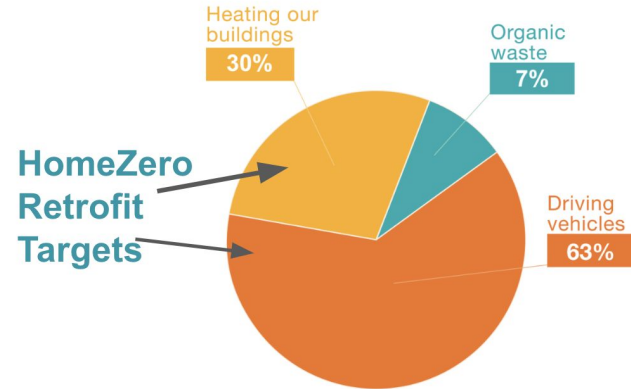
88% Greenhouse gas reduction

Vernon Housing Stock



DWELLING CONDITION	NUMBER OF STRUCTURAL DWELLINGS
Regular maintenance needed	12,730 (72%)
Minor repairs needed	4,040 (23%)
Major repairs needed	1,030 (5%)
Total - Dwelling condition	17,800 (100%)

Vernon Emissions



Major challenges to improve energy efficiency

- High Cost of retrofits
- Inadequate Workforce
- Complex change for homeowner
- How do we make the model replicable?

Solution: Upgrade on a Community Scale

- Whole house upgrade (4 days)
- High Volume procurement / operations



Stay within your existing monthly costs

Example: \$280/mo for heating and electricity on an annualized basis

Retrofit with renewable energy systems

- Eliminate emissions
- Generate electricity

Greatly reduce your monthly utility costs. For example: \$50/mo*.

Use the savings of \$230/mo to pay off the retrofit

*Every home will have different energy savings

Whole House Equation

Savings 1

Utility costs will keep going up, loan payments remain steady

Savings 2

New equipment means you won't have to replace furnace or hot water tank

Savings 3

After loan is repaid in 15 years, you save several thousand dollars annually

Practical and Streamlined

- Review 2 years of billing
- Propose retrofits
- Outline all rebates, incentives, financing options
- Develop post-retrofit financial outlook
- Retrofit coordination beginning to end
- Help homeowner to apply for loan
- Energuide assessments -> Installation -> Rebates

Turn key experience to go towards zero emissions

HomeZero Collective Team



Amandeep Singh
Founder



Tom Berkhout, PhD
Worked at BC Hydro – BC
Building Electrification Roadmap



Maryam Rezaei, PhD
Worked at Clean BC
Program Design



Sandy Kersey
CFO, Previously Treasurer
at Tolko Industries



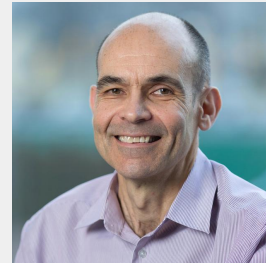
Ashley Lubyk
Chair of Sustainable Construction
Okanagan College



Jeff Quibell
Principal Engineer
Falcon Engineering



Rob Monteith
Founder Okanagan Solar



Trevor Jahnig
Previously CFO Tolko Industries

HomeZero Capital Project 500+ homes

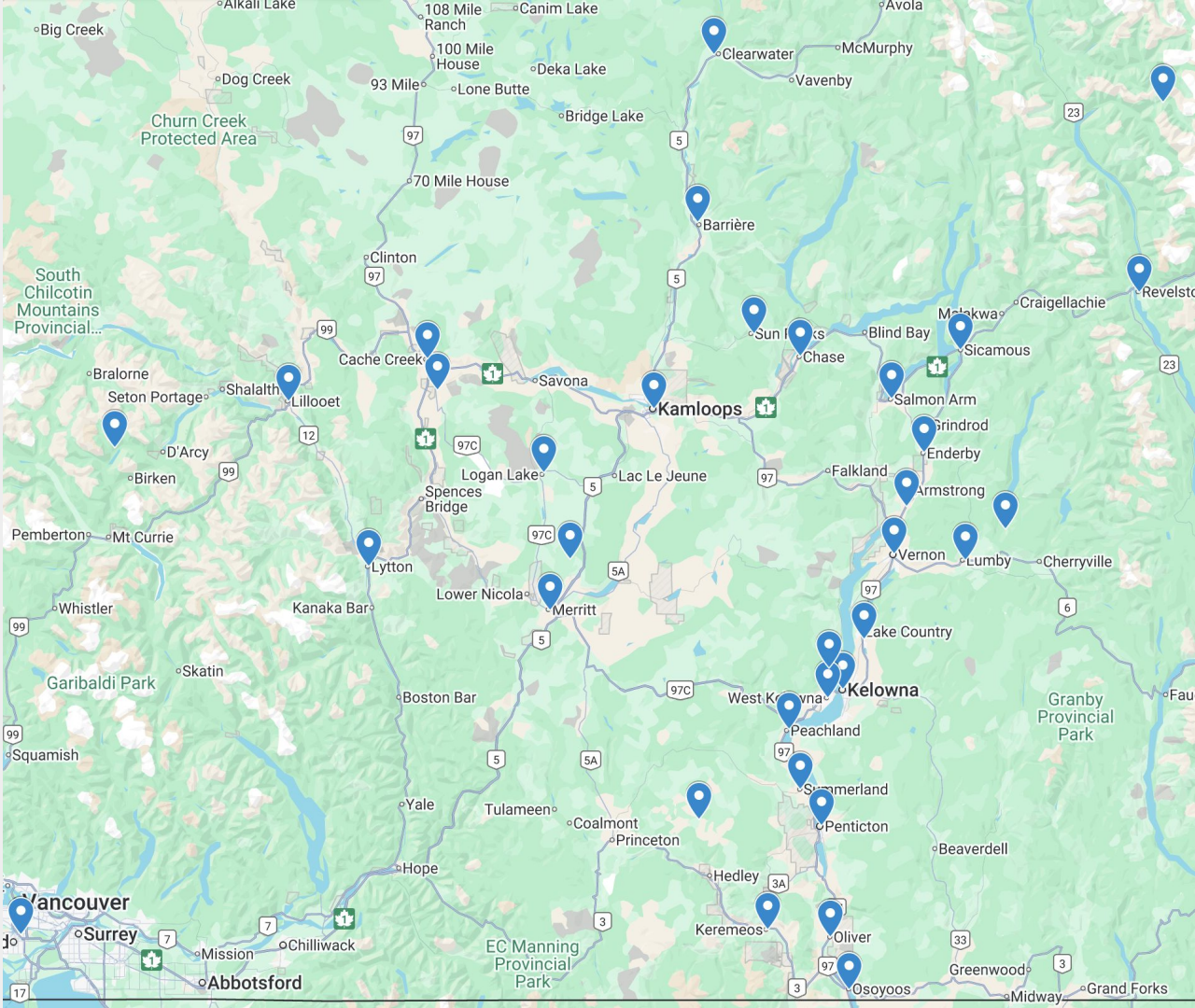
- FCM Capital Project Grant: \$5 million
- \$2 million loan loss reserve
- Bank financing: up to \$20 million

HomeZero Climate Society

HomeZero Collective Inc.

Southern Interior Regional Approach to Retrofit Project

Request: Letter of Support
Vernon, Salmon Arm, Kamloops, Kelowna, Keremeos, Ashcroft, Lumby





Clean Energy Neighbourhoods

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