

# Built to Zero

## Vancouver's Approach to Reducing GHGs in Existing Buildings

Part II



# Existing MURBs:

## Opportunity

- 3,400 MURBs in Vancouver
- 40% cost effective savings in common area
- Perfect customer: never move, never default,
- Opportunity during leaky condo repair

## Barrier: Cannot Borrow

# Proposed Solutions:

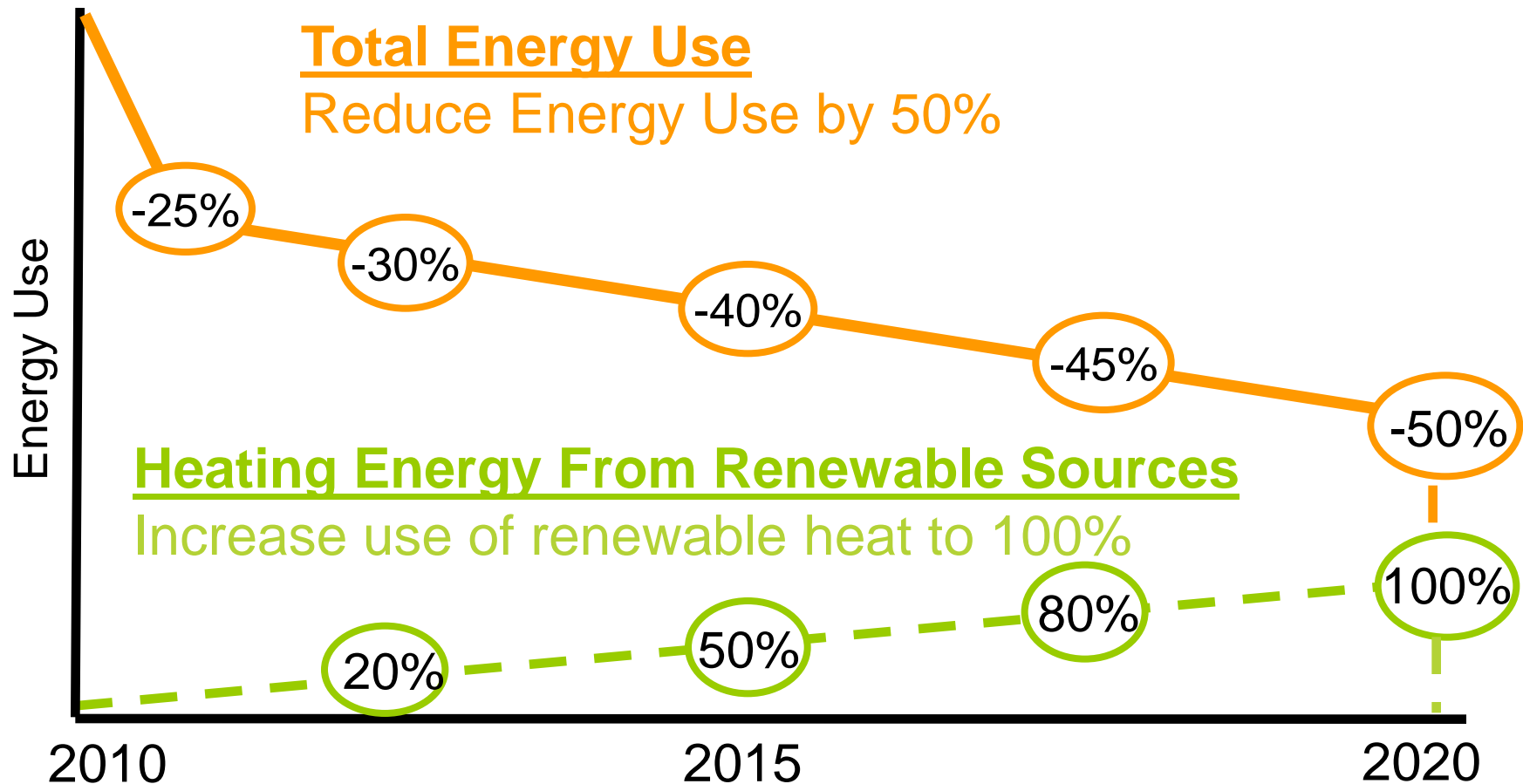
## 1. On-bill financing (BC Hydro) for common area

- Ideal for prescriptive electrical conservation measures:
- low risk, low administration, shorter paybacks, known savings
- enables COV to regulate in renovation by-law

## 2. Loan guarantees (e.g., “Green Fund”)

- Ideal for comprehensive performance-based solutions:
- More flexible than on-bill financing

# New Buildings: Carbon Neutral Strategy



# District Energy Strategy



# District Energy in South East False Creek

6 million sq ft of residential, commercial, institutional development with 16,000 new residents by 2018

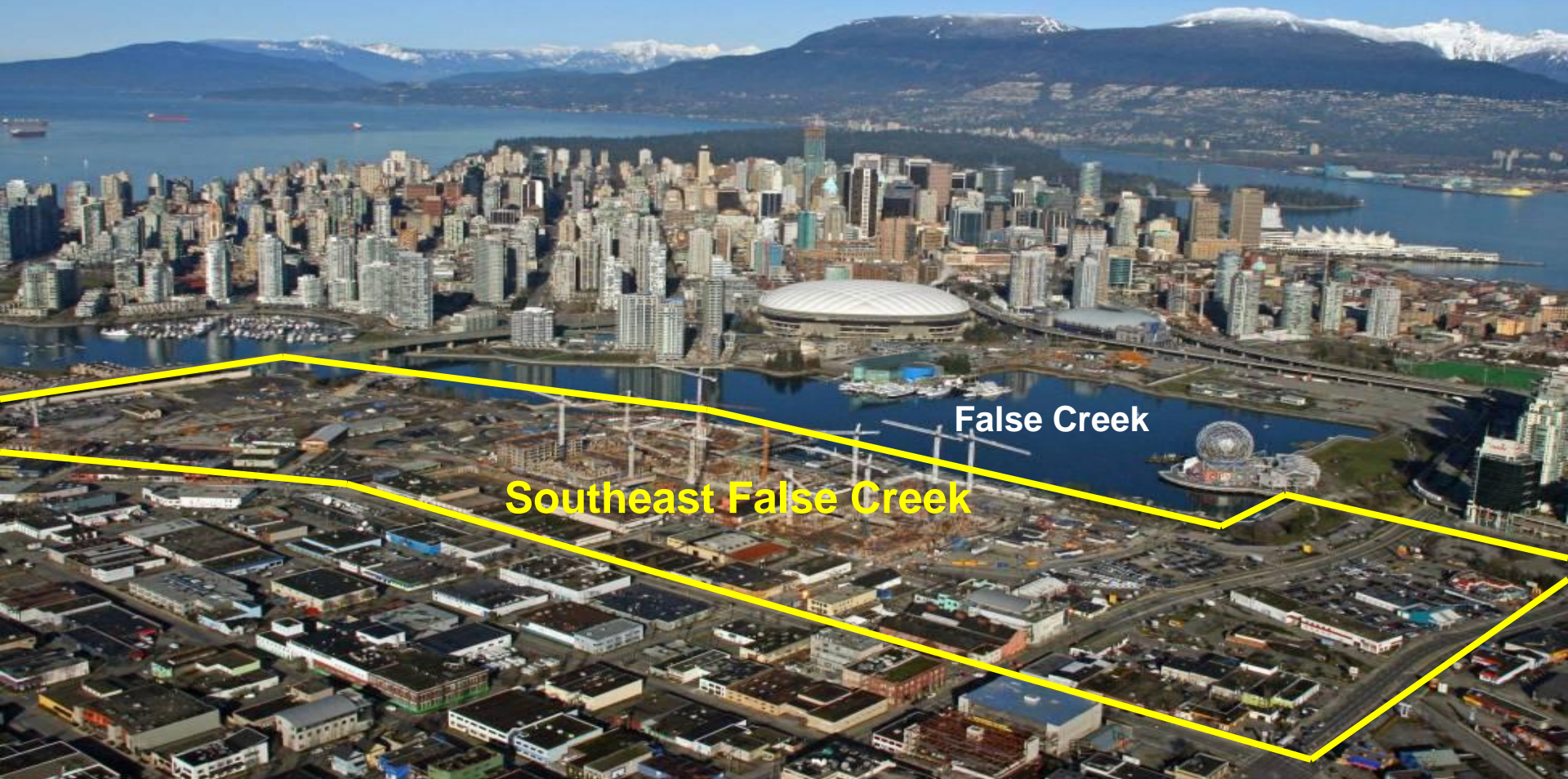
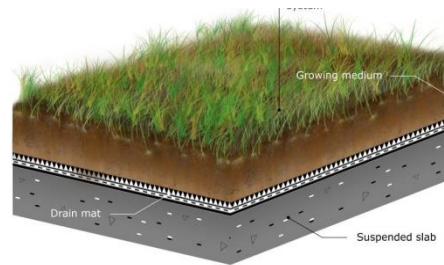
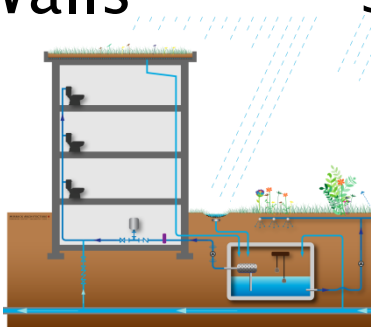
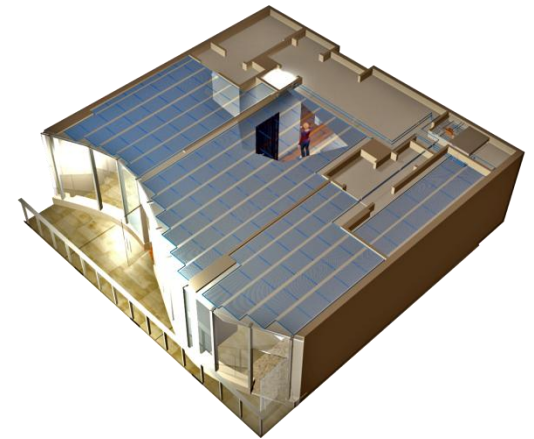




Image Credit: Eagle-Eye Photography

# Cost of Sustainable Design Features

Shading	\$ 6.00	} per sq ft
Water	\$ 2.00	
Measurement	\$ 3.50	
Energy	\$ 0.00	
Green Roofs	\$ 1.50	
LEED	\$ 0.50	
Walls	\$ 5.00	



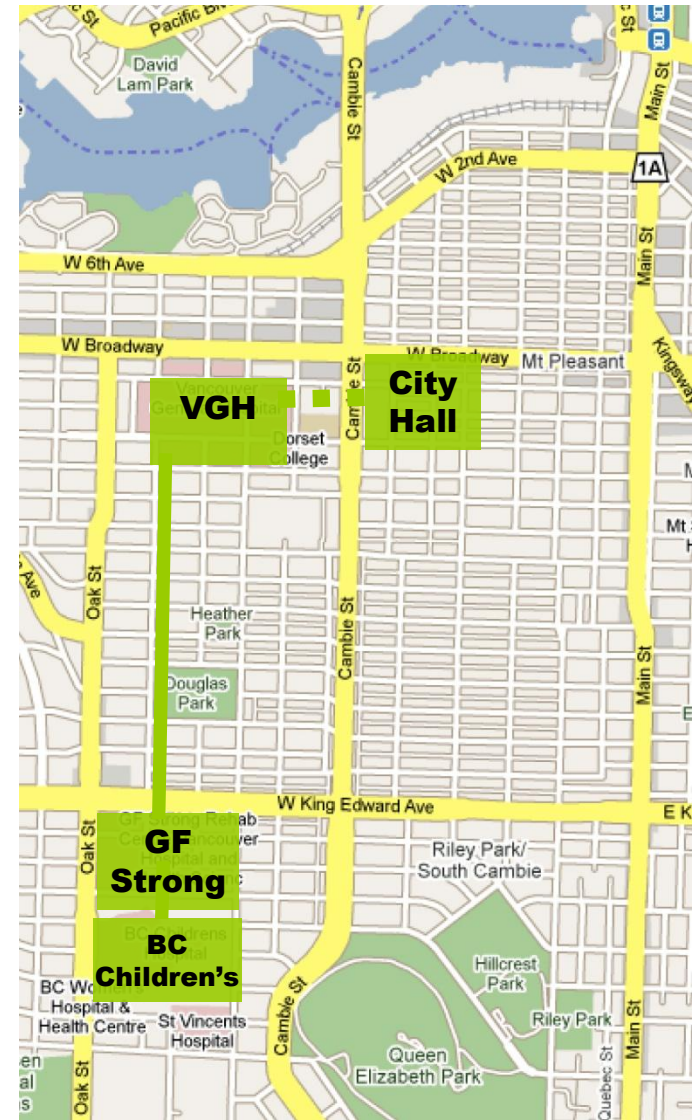
# Convert & Expand Existing District Systems

## 3 existing steam heat systems:

- Central Heat Distribution Ltd.
  - Vancouver General Hospital
  - Children's and Women's Hospitals
- Large emitters of GHG's
  - All adjacent to high growth areas/corridors (Downtown, Broadway, Cambie)

## Future:

- Waste-to-Energy



# Planned District Energy Systems

## East Fraser Lands



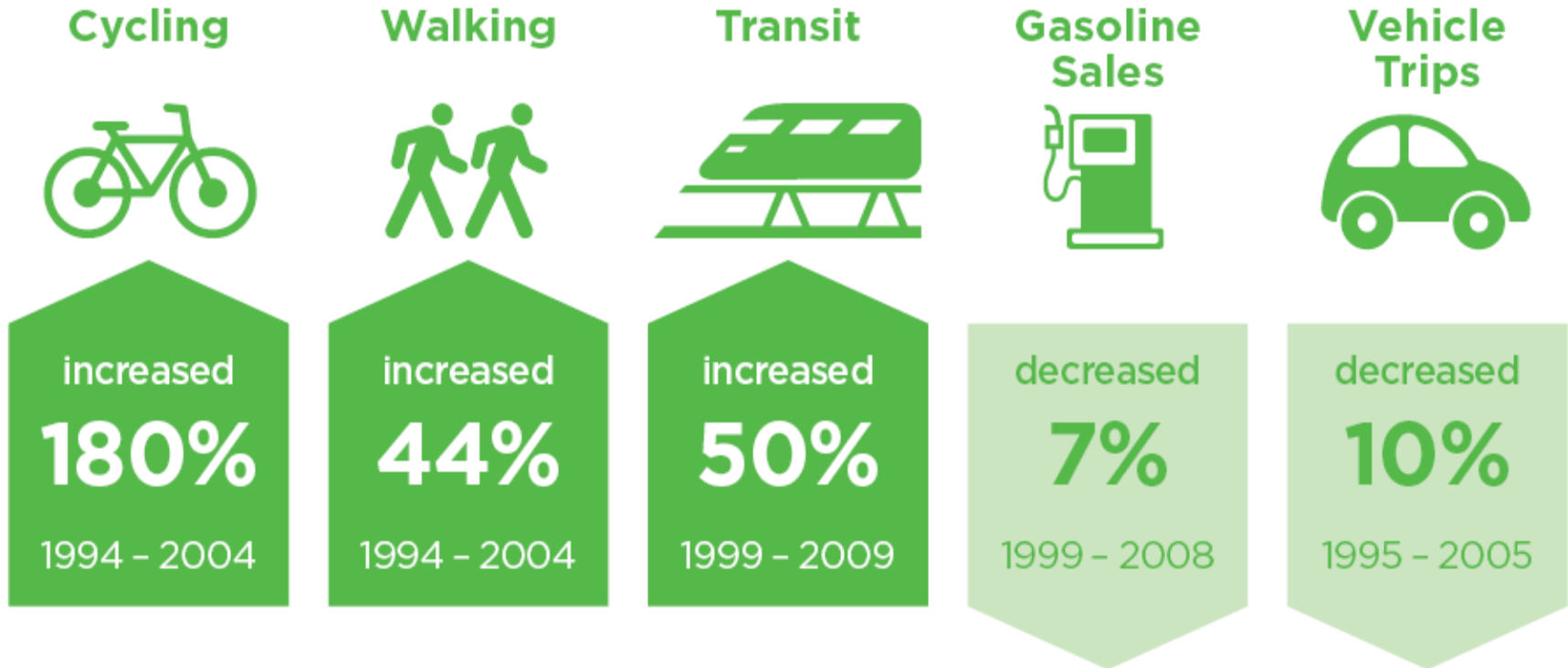
# Planned District Energy Systems

- North-East False Creek



# Green Transportation

## Compact mixed-use communities with Easy access to work, shopping & recreation



# Final Thought...

**“We overestimate what we can achieve in one year  
and underestimate what can be done in ten ...”**

**1980s**



**2000s**



# The Challenge

## GREENEST CITY IN THE WORLD BY 2020

In early 2009, the City's Mayor formed the Greenest City Action Team (GCAT) with a mandate to make recommendations on how Vancouver can become the greenest city in the world by 2020.

