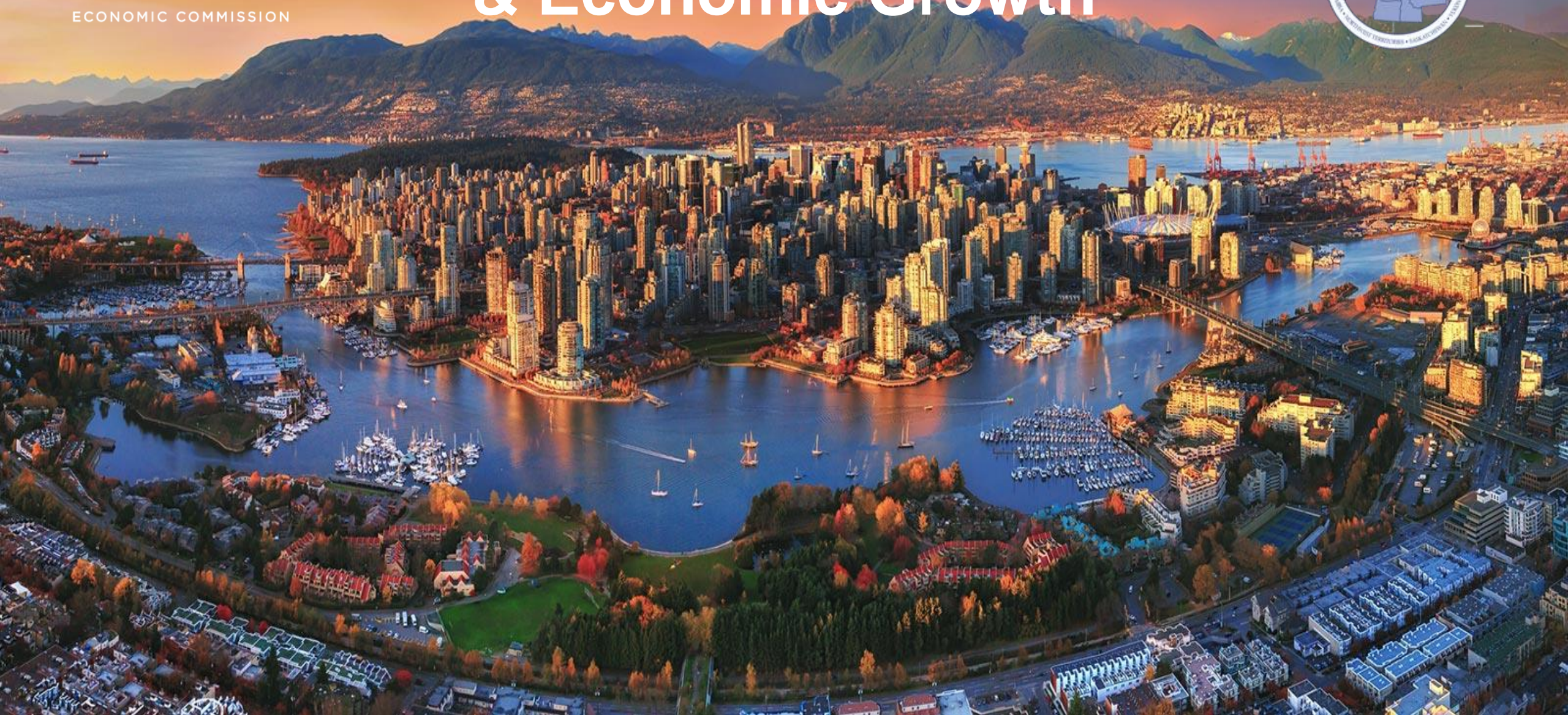




VANCOUVER  
ECONOMIC COMMISSION

# Vancouver's Climate Policy & Economic Growth



An aerial photograph of a mountainous region with dense green forests and a winding river. A white circle highlights a specific area on the right side of the image.

# Vancouver:

2.5m pop but growing fast  
One of most livable cities

3.9 – 4.1 % GDP growth  
3.7 % Unemployment  
\$148,000 USD GDP/Capita

Lowest GHGs per capita in North America  
Electricity is 98% Hydro (renewable) and cheap

**\$31.7B Brand Value for City**



**VANCOUVER CONTEXT:  
“Unfair natural & cultural  
competitive advantages”**



# GREENEST CITY

A world-renowned city for green thinking & living

## VANCOUVER IS LEADING ON CLIMATE ACTION

GCAP 2020, Renewable Energy 2050, Zero Waste 2040

## GREEN JOBS GROWING BY 6% EACH YEAR

Now transforming all industries e.g. construction, film

## LOWEST PER CAPITA FOOTPRINT IN N. AMERICA

Declining GHGs despite booming economy

## TOP 10 GLOBAL CLEANTECH CLUSTER

And #1 in Canada

## BEST BUILDING CODES IN THE WORLD

World Building Council



# GREENEST CITY

A hub where innovation & creativity intersect



3D Bio Printing



Virtual Reality



BroadbandTV  
Video Streaming



Business Communication



Quantum Computing

generalfusion

Fusion Energy

TED

Thought Leadership



Carbon  
Engineering

Global-scale Carbon Capture





# GREENEST CITY

## Smart Capital Fuels Smart Ideas

**Quark**  
venture

\$650M

 **Chrysalix**  
ENERGY VENTURE CAPITAL

\$146M

 **Robo Valley**  
Chrysalix  
ENERGY VENTURE CAPITAL

\$130M

 **BRITISH COLUMBIA**  
**KENSINGTON**  
CAPITAL VENTURES

\$100M

 **Hootsuite®**

\$6.7M

 **evok**  
INNOVATIONS

\$100M

 **VANCOUVER**  
FOUNDER FUND

\$31M

 **PANGAEA**  
VENTURES LTD.

\$84M

 **CAMPFIRE**  
CAPITAL

\$41M

**versionone**

\$45M

**YALETOWN**

Innovation Growth Fund

\$200M

**YALETOWN**

Fund III

\$200M

**iNOVIA**  
CAPITAL

Montreal-Based

\$175M

 **SUSTAINABLE DEVELOPMENT**  
TECHNOLOGY CANADA™

Canada-Wide

\$200M

 **VISTARA**  
CAPITAL PARTNERS

\$100M





# GREENEST CITY

A Foundation for our Cleantech & Energy Sectors



**30%** Canada's  
Cleantech  
Sector

with only 7% of Canada's population

7 BC Companies Named in Global Cleantech 100 List  
(From 12,000 world-wide nominations)



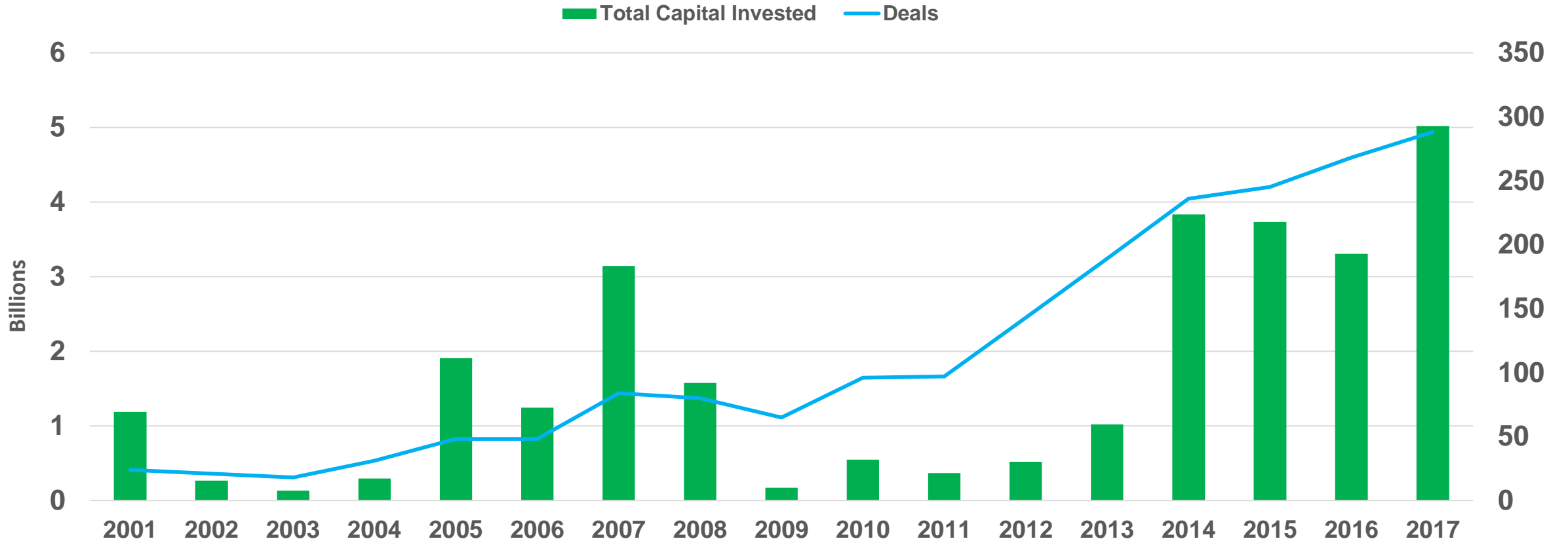
## Emerging Tech Leaders





# GREENEST CITY

## Capital Investment into the Metro Vancouver has Quintupled Since 2013



Source: PitchBook, non-resource companies









# Talent Magnet?



**Climate-driven risks to local GDP is already here.**





**58%**  
KILLED  
OFF

**752,000,000**  
CUBIC METRES OF  
BC WOOD



**\$57 BILLION**

**PRESENT VALUE LOSS IN GDP**



**1,200+**  
**WILD FIRES**

# **\$3+ BILLION**

## **ECONOMIC IMPACT OF 2017 WILD FIRES**





# OUR GREENEST CITY JOURNEY



Greenest City  
Action Team

Greenest City  
Action Plan

Renewable Energy  
City Strategy

Zero-Waste  
City Strategy

Climate  
Emergency

Greenest City  
2050

2008

2009

2010

2011

2012

2014

2015

2016

2017

2018

2019

2020



# GREENEST CITY FRAMEWORK

ZERO CARBON	Green Buildings	Climate & Renewables	Green Economy	Lighter Footprint
	Green Transportation			
ZERO WASTE	Zero Waste			
HEALTHY ECOSYSTEMS	Access to Nature			
	Clean Water			
	Local Food			
	Clean Air			



# PERFORMANCE AT A GLANCE



**30%** Canada's  
Cleantech  
Sector

with only 7% of Canada's population



**28%**

Increase in GDP since 2007



**12%** GHG reduction

reduction in community-wide  
GHG emissions since 2007



**35%** Green Jobs  
Growth since  
2010

growth in green & local food jobs  
since 2010



**122,000+**

New trees planted  
since 2010



**28% +**

reduction in solid waste  
sent to a landfill or  
incinerator since 2008



**22%**

reduction in water use per capita  
since 2006



**53%**

of trips in the city are  
made by walking,  
biking, or transit



**38%**

decrease in vehicle KM  
driven per person since 2007



**53%**

increase in neighbourhood  
food assets since 2010

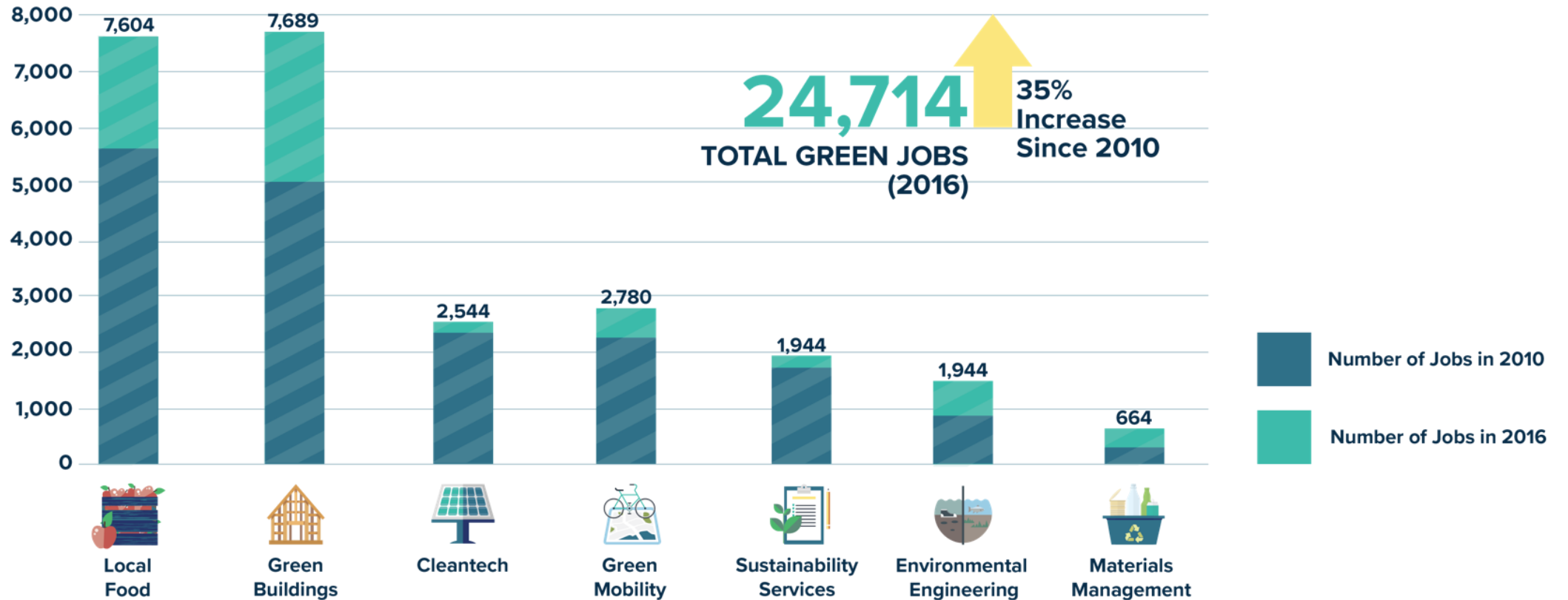


**43%**

decrease in carbon intensity of  
New construction since 2007

# GREEN JOBS

1 in 15 Vancouverites Work in the Green Economy



Source: Vancouver Economic Commission, 2018

# A STRONG GREEN BUILDING SECTOR

Locally, Provincially and Federally



## Best Green Building Policy in the World

*(World Green Building Council, 2013)*



## Average annual savings to Vancouverites from lower carbon buildings 2010-2016: \$12M

*(City of Vancouver)*



## Canada's Green Building Industry: \$23.45B in GDP | 297,890 Jobs

*(CaGBC, 2014)*

2007

2018

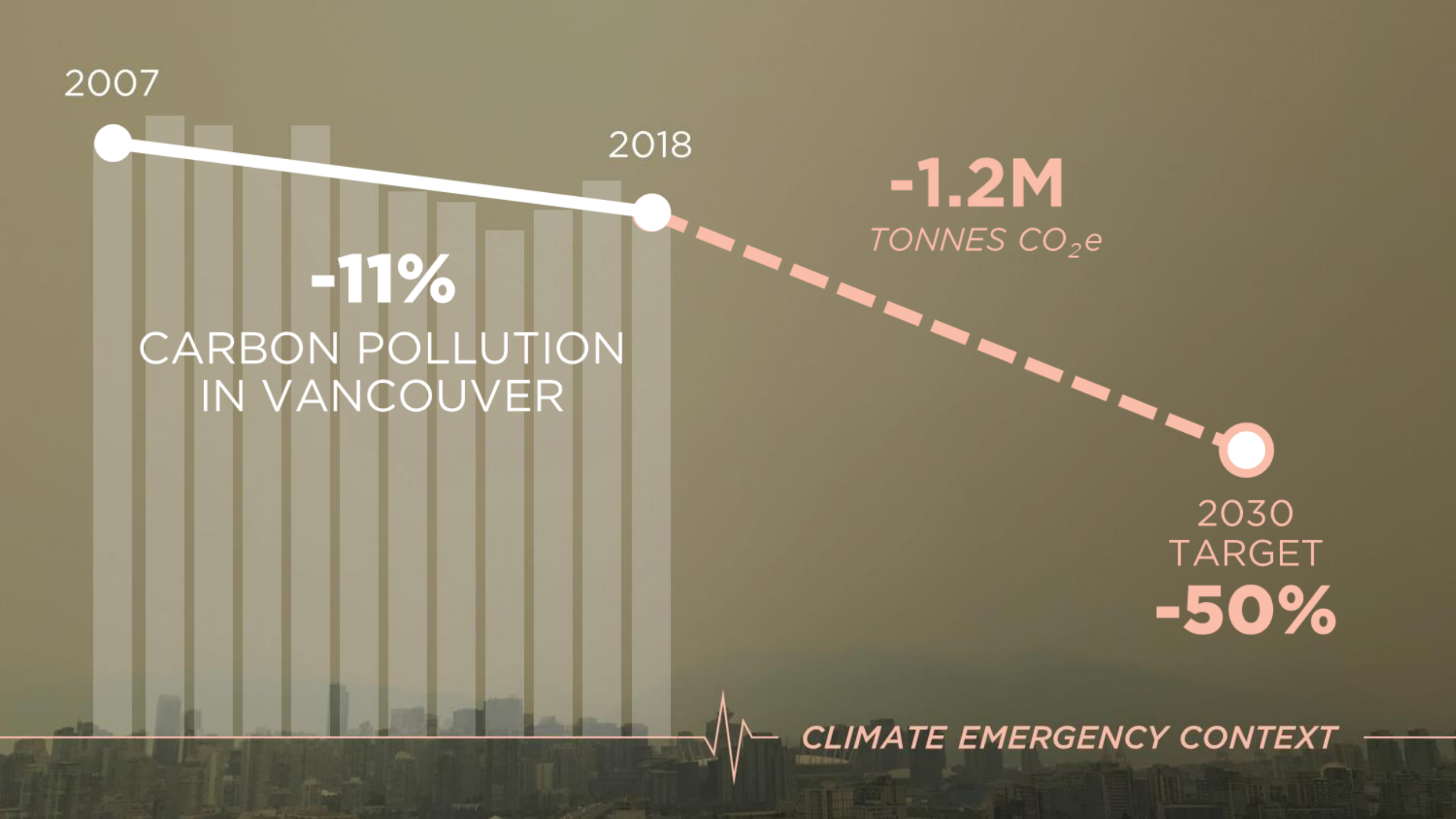
**-11%**

CARBON POLLUTION  
IN VANCOUVER

**-1.2M**  
TONNES CO<sub>2</sub>e

2030  
TARGET  
**-50%**

*CLIMATE EMERGENCY CONTEXT*



CLIMATE EMERGENCY **RESPONSE**

TARGET



CURRENTLY

-80%  
CARBON

BEFORE

2050

NEW

CARBON  
NEUTRAL

BEFORE

2050

0.2M

0.4M

0.6M

0.8M

1.0M

1.2M

1.4M

TONNES CO<sub>2</sub>e REDUCED BY 2030

**BIG MOVES**

1.1M TONNES

**RENEWABLE FUEL STANDARDS**

0.2M TONNES

1

2

3

4



**1.3M**

TONNES REDUCED

13%

12%

24%

46%

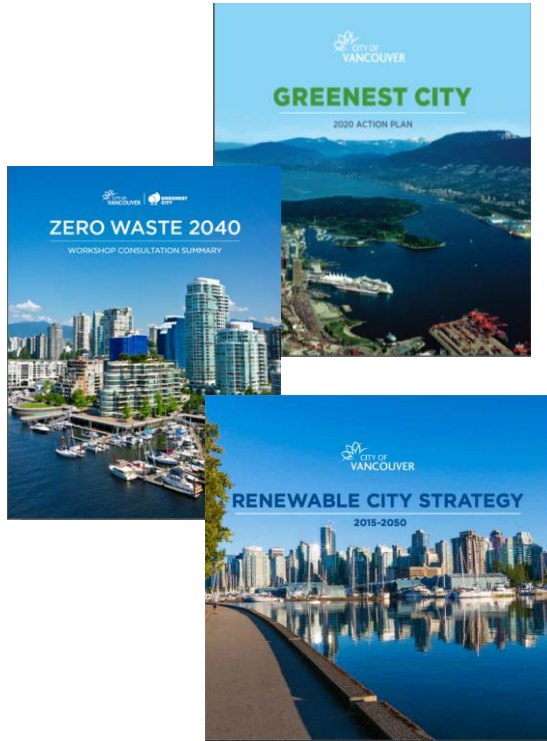
14%

OF 2030 TARGET



# OUR APPROACH

## Smart Policy & Regulation



## Research & Analysis



## Innovators & Innovation

 **GREEN & DIGITAL**  
DEMONSTRATION PROGRAM  
*Accelerate your path to the global marketplace*

VANCOUVER  
*Startup City*

## Business Engagement

**THRIVING**  
**VANCOUVER**  
*a project of Vancouver Economic Commission*



Government  
of Canada

Trade Commissioner  
Service

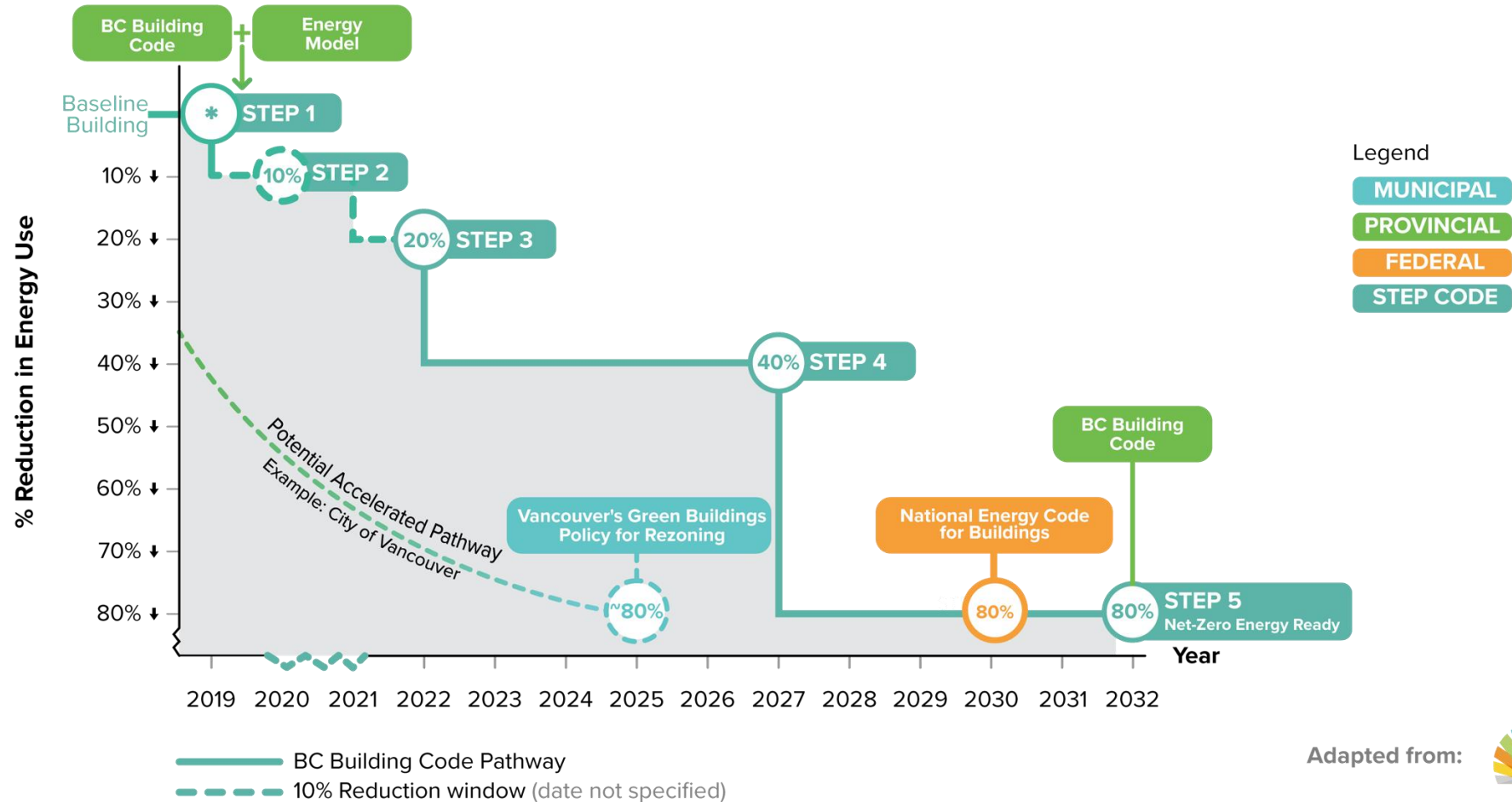


# EXAMPLE:

## BC's Energy Step Code & Vancouver's Zero-Emissions Building By-law

# BC's ENERGY STEP CODE

A Pathway to Net Zero Energy New Construction by 2032

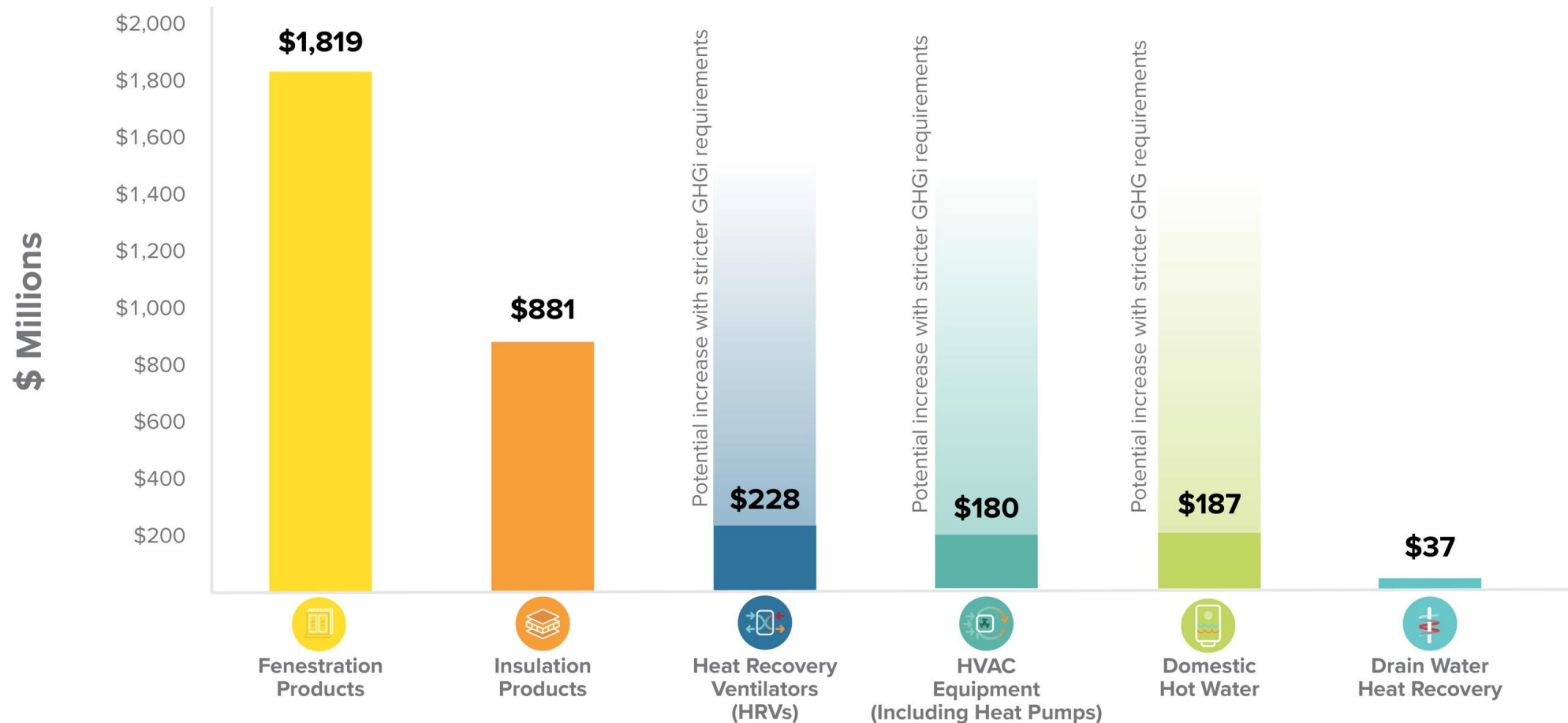


Adapted from:



# \$3.3B MARKET OPPORTUNITY

Demand Forecast | New Construction | Metro Vancouver | 2019 – 2032 Cumulative



# BC's Larger Green Building Opportunity



**BC MARKET + RETROFIT MARKETS**



**CASCADIA MEGA-REGION**



**MASS TIMBER, CONTECH, PREFABRICATION**



**RELOCALIZING THE SUPPLY CHAIN**



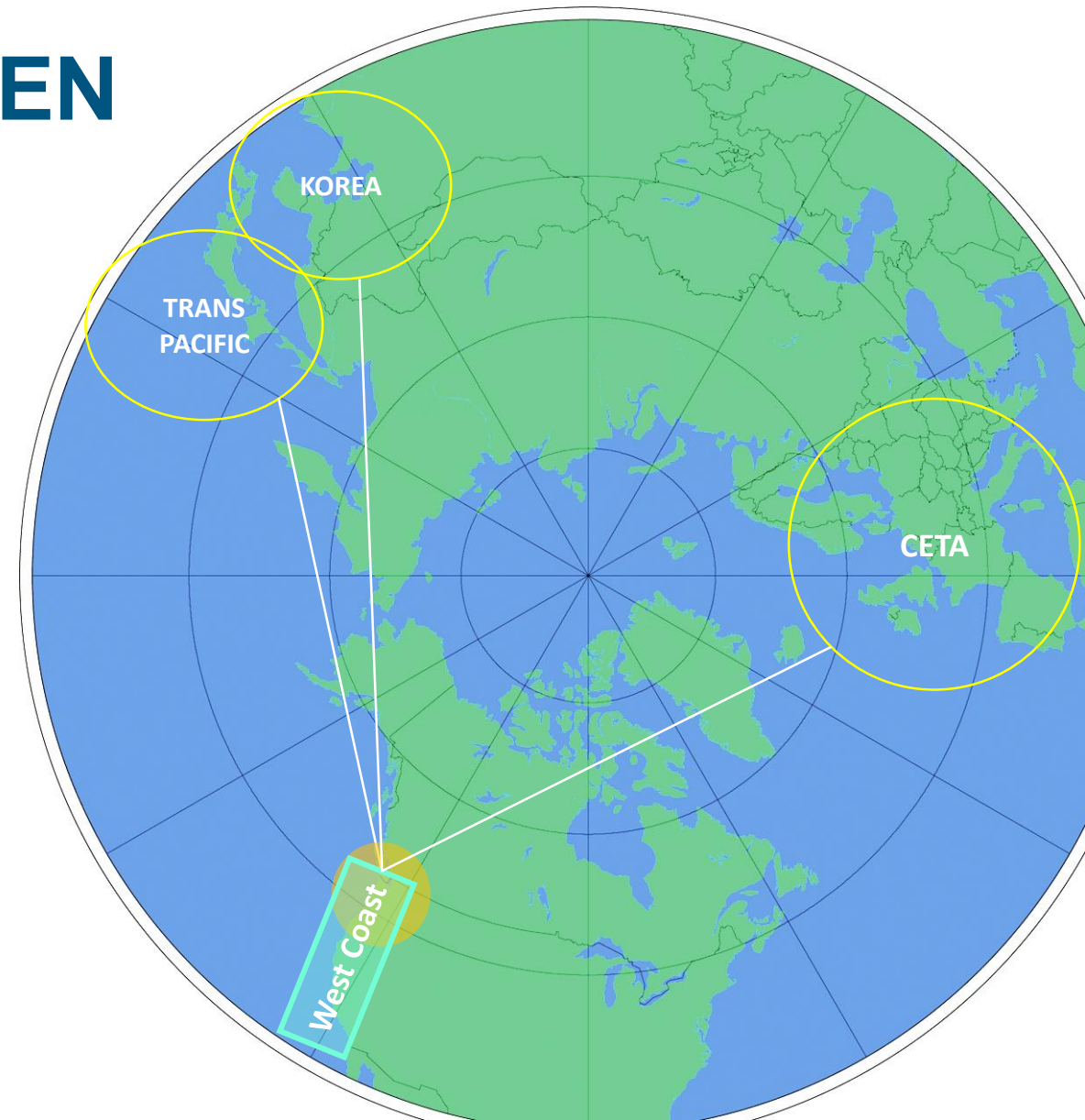
# MARKET ACCESS FOR GREEN BUILDINGS

## Notable Trade agreements

- ❓ CETA – Canada & Europe
- ❓ Korean Free Trade Agreement
- ❓ Trans-Pacific Partnership – Japan +9
- ❓ US-Canada-Mexico Agreement – NAFTA #2

## Market Access

- ❓ British Columbia: 4.8M
- ❓ Pacific Northwest: 11.5M
- ❓ California: 40M



# THE INVESTMENT & TRADE OPPORTUNITY



INVEST IN VANCOUVER

LEVERAGE OPPORTUNITY



Fenestration



Insulation



HVACs



HRVs



Domestic Hot Water



DWHR

EXPORT FROM VANCOUVER





# LOCAL DEMONSTRATION PLATFORM

Leveraging Regional Assets

- + Transportation Agencies
- + Telecoms
- + Utilities
- + Building Industry
- + Cascadia Partners

 **GREEN & DIGITAL**  
DEMONSTRATION PROGRAM



# Our Path to a Renewable & Circular Future

## Vancouver's Big Economic Opportunity:

- 1. Innovation for the Built Environment**  
Building codes & regulation that stimulates innovation
- 2. Transitioning to Green Transportation**  
Infrastructure that supports innovation
- 3. Zero Waste & the Circular Economy**  
New systems and business models

# LESSONS LEARNED

Leadership Matters

Regulation Matters

Engagement Matters

Data Matters

“Government is not going to solve this...  
Business is!”



**IF VANCOUVER REMAINS  
A GREEN ISLAND...**