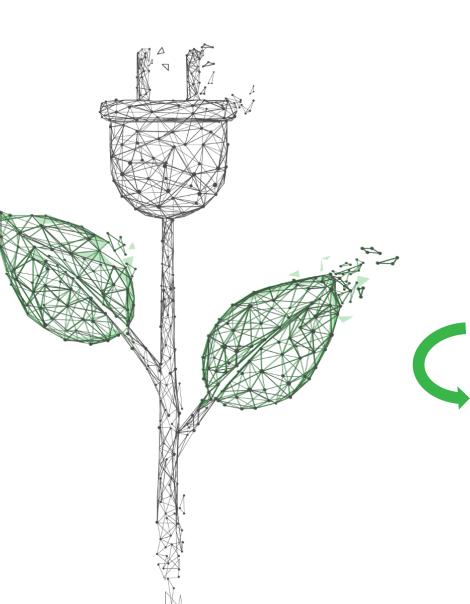


# CleanTekCanada

Clean Air Partnership

# **Agenda**



#### Ian Storey, I.B. Energy Solutions

Moving to Net Zero Carbon within Municipal Facilities and its Connection with Advancing Community Net Zero Carbon Developments

#### Kory Chapelle, CleanTek:

Lessons Learned (so far) from California's Distributed Energy Transition

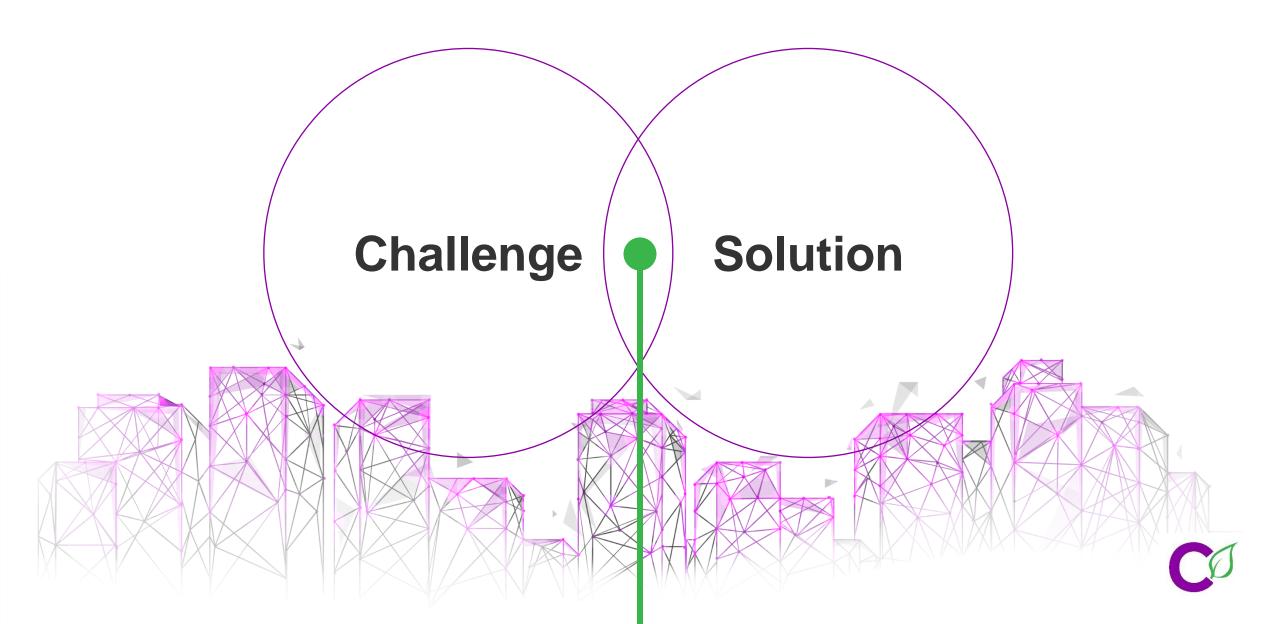
#### **Christian Rinomato, Rinomato Group**

Alignment Across Real Estate and Energy Developments



#### **Net Zero Push**





#### **Established Findings**



An expert partner for businesses, governments and organizations around the world.

"Many organizations have environmental policies and know that they should reduce carbon emissions from their operations but miss the opportunity to embed these principles in refurbishment projects"

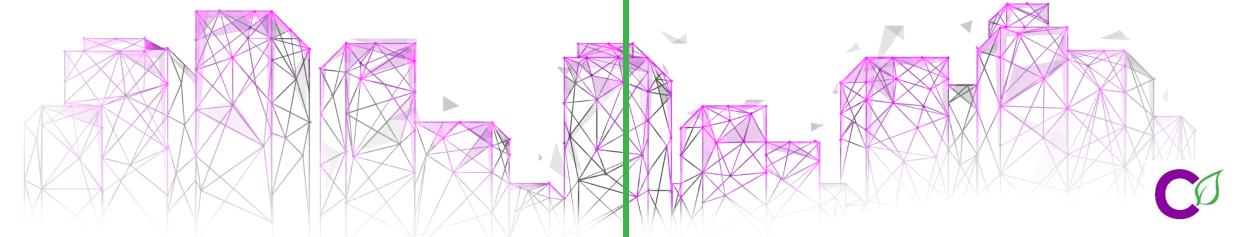
Reference: Carbon Trust, Low Carbon Refurbishment of Buildings: A Guide to Achieving Carbon Savings from Refurbishment of Non-Domestic Buildings, June 2008)



#### **Most Common Municipal Approach for EB**

Asset Management Plans drive refurbishments based upon: New Version of the Same Equipment

- Enhancements not a direct consideration
- Same conventional design | New equipment
- Brand new 20+ year old design instead of Reengineering optimal solution



## Financial Sustainability

# I.B. Rink Engineering Experts

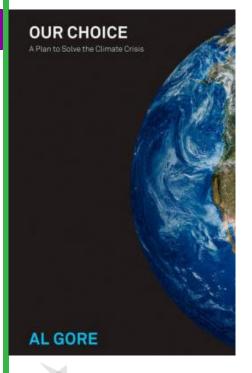
#### **HOW WE USE ENERGY: LESS IS MORE**

Improvements in the efficiency with which we use energy offer the **biggest opportunities** to reduce energy consumption—and CO<sub>2</sub> emissions—while saving money and increasing productivity at the same time.

Efficiency improvements are also <u>far and away the most cost-</u> <u>effective</u> among the solutions to the climate crisis and can be <u>implemented faster</u> than any of the others.

The huge cost savings and CO<sub>2</sub> reductions from improvements in efficiency are not speculative; they are real.

Al Gore, Our Choice 2009



# A ROAD MAP FOR NATURAL CAPITALISM



Business strategies built around the radically more productive use of natural resources can solve many environmental problems at a profit.

Harv Bus Rev. 1999 May-Jun; 77(3):145-58,

BY AMORY B. LOVINS, L. HUNTER LOVINS, AND PAUL HAWKEN



# **Energy Management**





Government Gouvernement du Canada

Search the website

MENU **→** 

Canada.ca > Natural Resources Canada

**Dollars to \$ense Energy Management Workshops** 



Efficiency

Renewables







### **Emerging Trends**

Net Zero Ready Facilities Under Construction in PEI opening in 2021 and 2022.

Operating Designs at <10 ekWh/ft<sup>2</sup>

Context

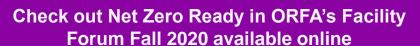
ENERGY STAR Median for Rinks = 43.6 ekWh/ft<sup>2</sup>

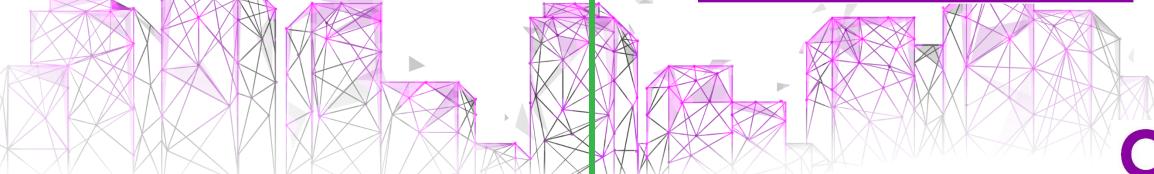
Positioned to become: **Zero Energy Building (Rink)** 













#### **Aligned Policies**

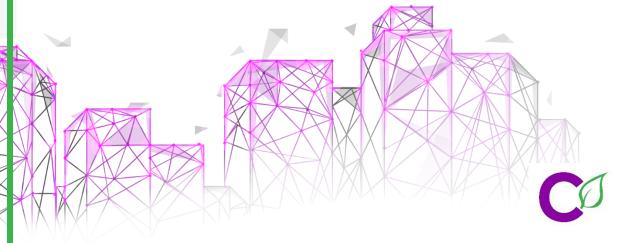




#### Sacrifice Net Zero for Sq. FT

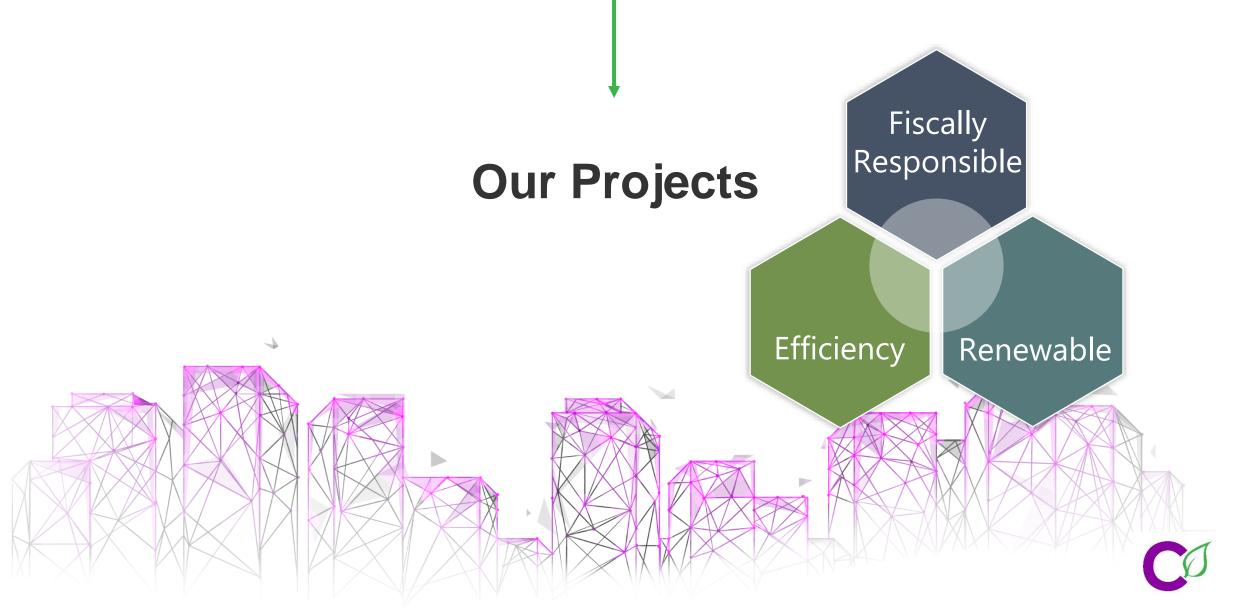
Restrictive

**Procurement Policies** 



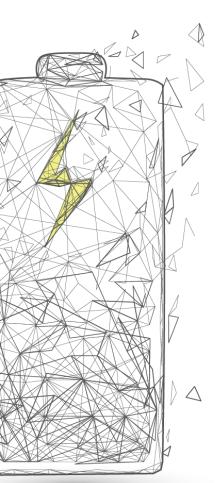
# **Leading by Example**





#### **California Success**





Early 2000s

Investing in Infrastructure

2006

Policy Changes & Incentives

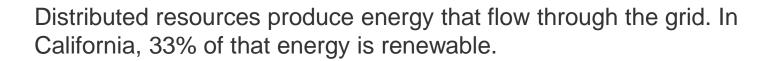
2020-Future

**Distributed Power** 



#### Infrastructure

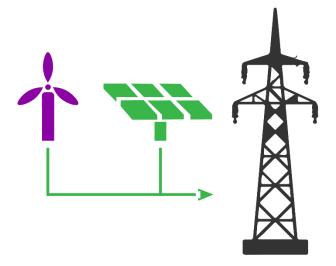




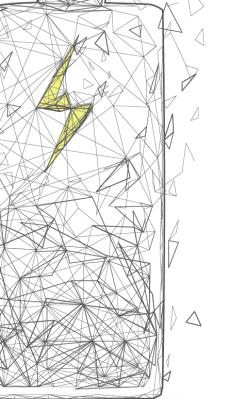
In Canada, 16% of produced energy on GRID is renewable.

Funding- Federal, Providential, Municipal, Utility, Private Sector

Economic Development drivers, Technology Advancements, Decarbonization



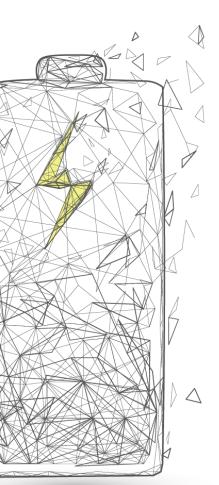
S-RECs





# Policy Changes





#### **Investment Tax Credit**

A percentage given to the owner of a renewable energy system as an incentive to offset cost. Solar Recs as well

#### Depreciation

Another incentive that helps offset project cost.

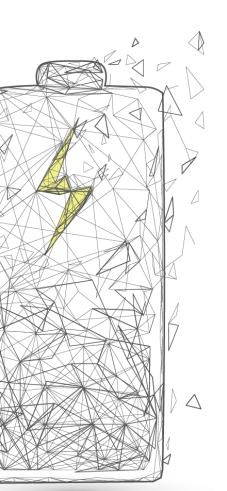
#### **Initiatives**

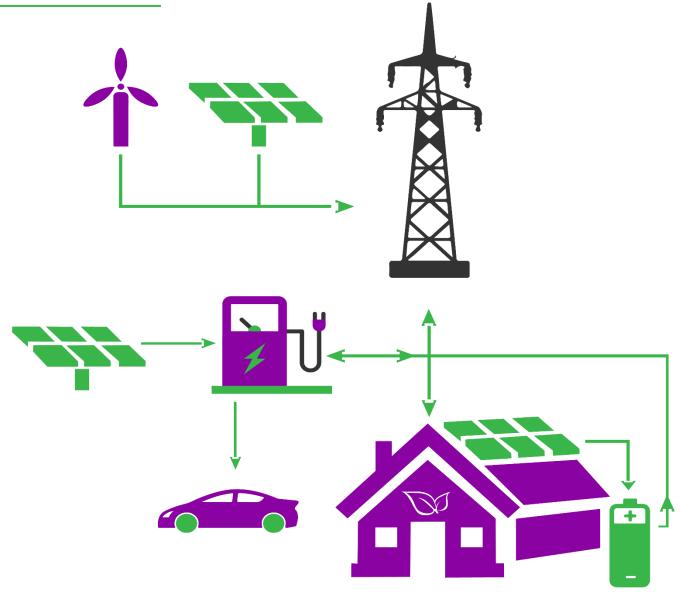
Recently put in place, all new home developments require solar to supplement the GRID.



#### **Distributed Power**









#### **Our Process**



#### **Energy Partner from Day 1**

**Engineering, Design**& Financing

**Commissioning** 

Servicing

From start to finish and beyond, we are here to be your resource!

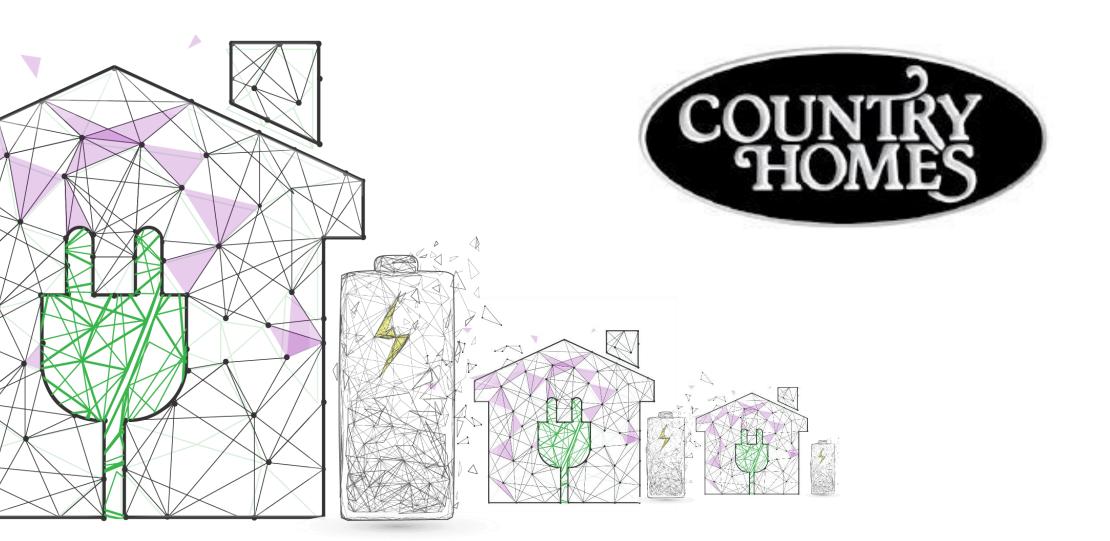
Our business model allows us to work with anyone.

After all due diligence and project milestones are set, we take on the cost and management of installation

"And Beyond" - We monitor and service the equipment for the term of the agreement.



# **Developments**





## **Developments**

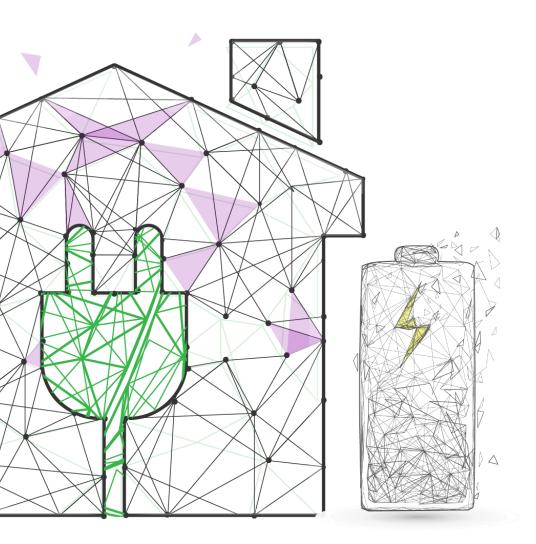






#### Infrastructure & Technologies





- Distributed Energy Resources
- EV Charging
- Surge Protection
- Nano-Tech Heating
- High Efficiency Water Tanks
- Large Scale Battery Storage

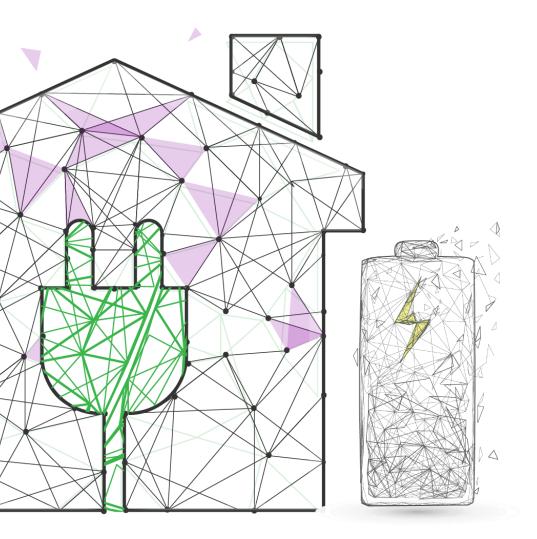


#### **Power Goals**









- 90% Net Zero 2030
- Electrify Transportation
- Full Circle Sustainability
- 100MW Renewables 2023



# CleanTekCanada Q8A

