

# Edmonton's Community Energy Transition Strategy

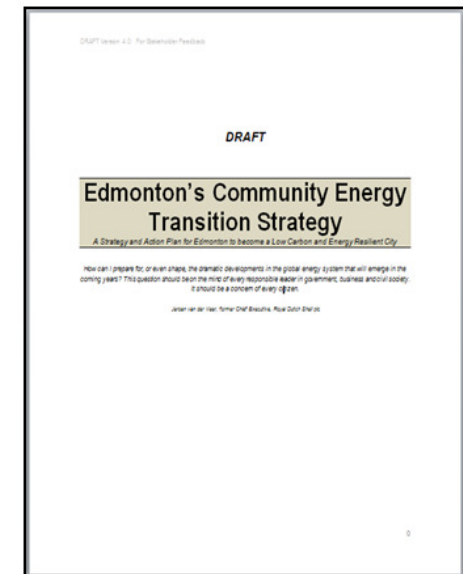


Barbara Daly for Jim Andrais, Program Manager, Environmental Policy  
City of Edmonton, Canada | October 23, 2014

**Edmonton**

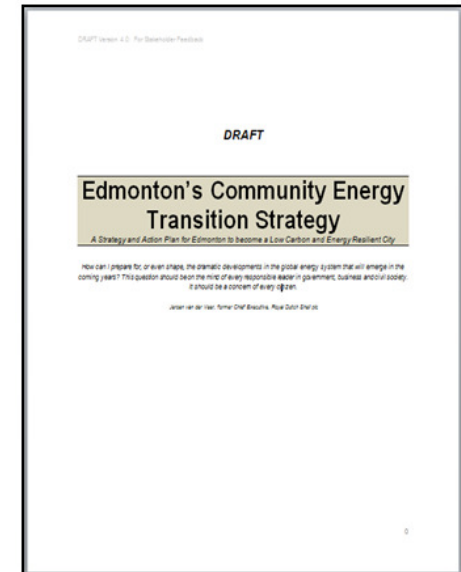
# What is *Edmonton's Community Energy Transition Strategy*?

A risk management strategy designed to make Edmonton an *energy sustainable city*.



# What's an energy sustainable city?

- Diversified energy mix
- Low GHG emissions
- Resilient energy delivery systems
- Significant self-sufficiency: power & heat



# Why?

## Risk #1

**High energy prices**  
(caused by energy supply unable to keep up with demand).

- *Projected energy demand increase: **35%**(2035), **56%**(2040) **87%**(2050)*
- *World dependency on fossil fuels remains high: **78%** by 2040 (USEIA)*
- *Remaining oil: **146** years, natural gas: **231** years, coal **2,914** years*

# Why?

## Risk #2

**Climate Change**  
(caused mainly by  
burning of fossil fuels)

- IEA: *The world is not on track to limit the long-term rise in the average global temperature of 2°C and that current policies are leading the world to a long-term average temperature increase in the range of 3.6°C and 5.3°C.*

# Why?

## Risk #3

Health and economic  
development risks  
(due to high PM 2.5  
levels)

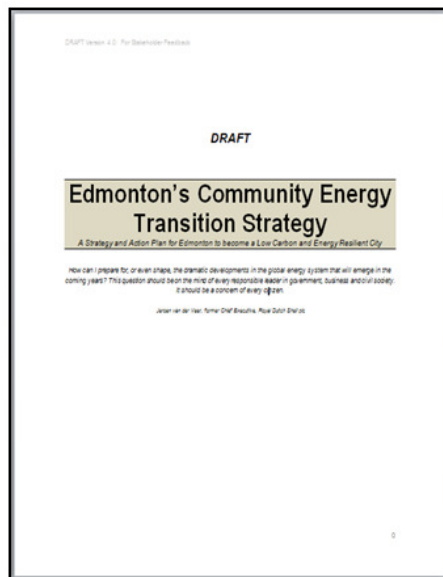
- *The Capital Region is exceeding limits set for fine particulate matter (PM2.5) and has been **ordered** to develop a reduction strategy.*

# Why?

## Opportunities

- **3<sup>rd</sup> Industrial revolution**
- **Increase efficiency**
- **Social license**
- **Standard of living**

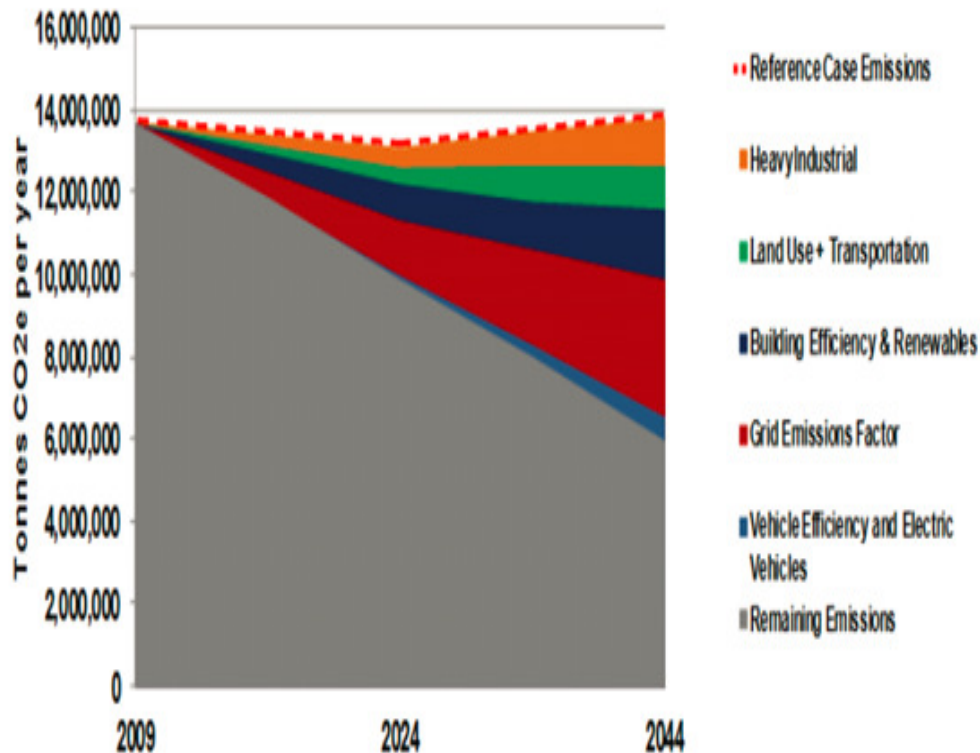
# What's in the strategy?



1. A Diagnosis
2. Policy Directions
3. 4-Year Action Plan
  - Buildings
  - Generation
  - Industry
  - Land-Use / Transportation
  - Water / Waste Water
  - Waste Reduction / Recycling
  - Leadership

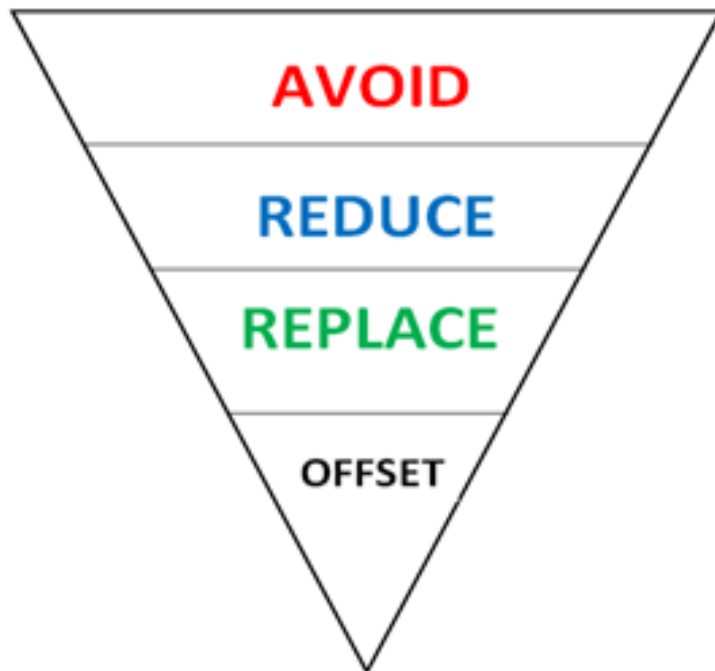


# Policy Direction #2



*Edmonton will focus its energy transition efforts on opportunities it controls and/or can influence over the long-term, including ...*

# Policy Direction #3



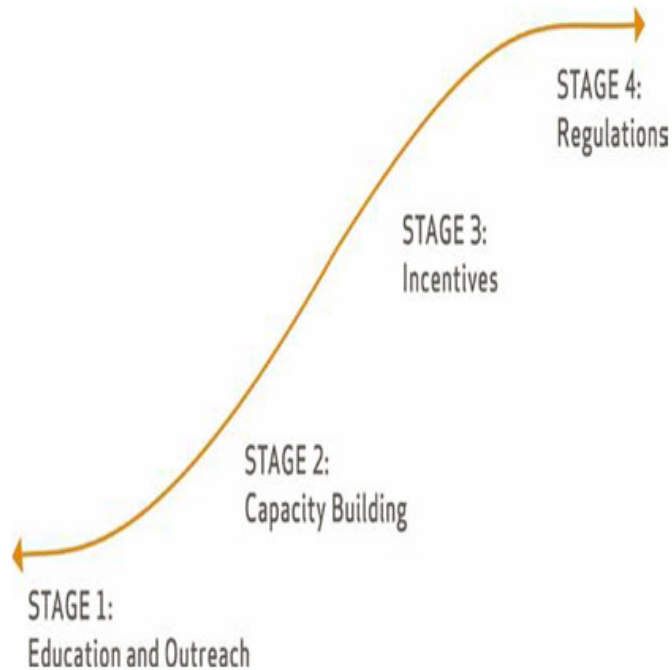
*Edmonton will achieve its goals and targets by:  
(a) avoiding wasteful energy- and carbon- intensive practices, (b) improving efficiency and (c) replacing high carbon with low carbon energy sources.*

# Policy Direction #4



*COE will take a lead role in supporting Edmonton's energy transition efforts. In doing so, it will lead-by-example in its own civic operations.*

# Policy Direction #5



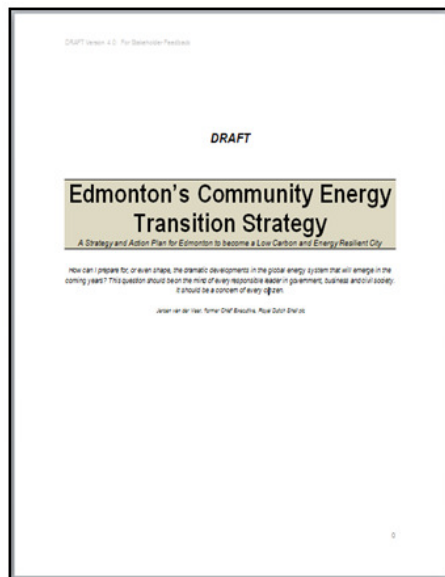
*COE will apply a Market Transformation Approach to achieve the changes that are needed to become an energy sustainable city.*

# Policy Direction #8



*COE will strive to achieve its energy transition goals in partnership with other municipalities and the Province of Alberta.*

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# Energy Use in Buildings

## Core Programs

- Public education awareness program: green buildings
- Demonstration program – leading technologies
- Green building recognition program
- Detailed review of City policies, bylaws, processes
- Green Lease program for COE leased buildings
- Others

- 42% of energy used in Edmonton is used in buildings*
- 38% of Edmonton's GHG emissions originate from buildings*



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