

CITY OF CALGARY
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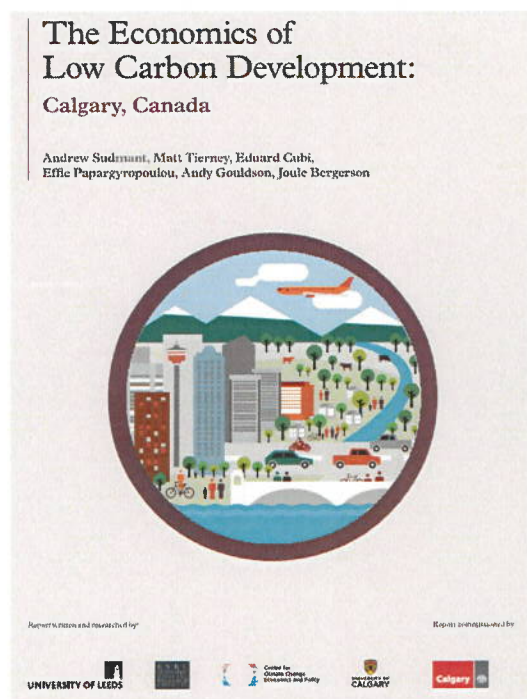
SEP 12 2018

ITEM: 71 ULS2018-1020

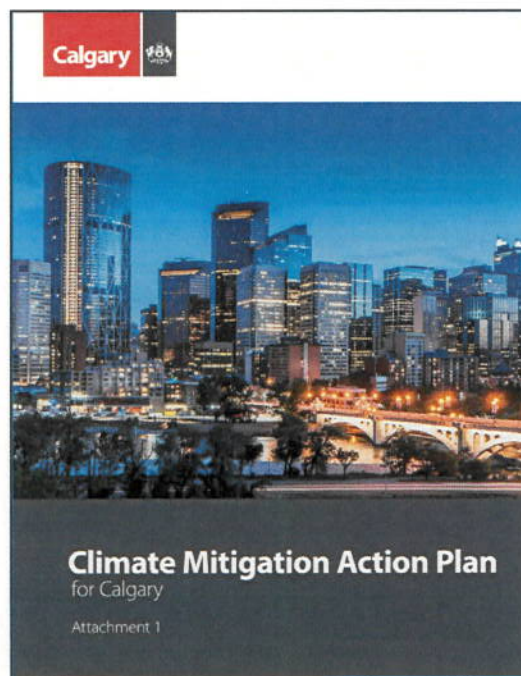
Public Speaking Notes

CITY CLERK'S DEPARTMENT

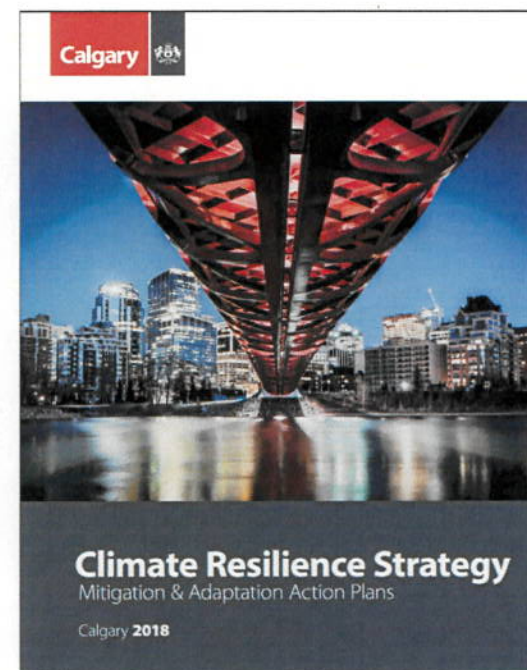
Context – “the Leeds study”



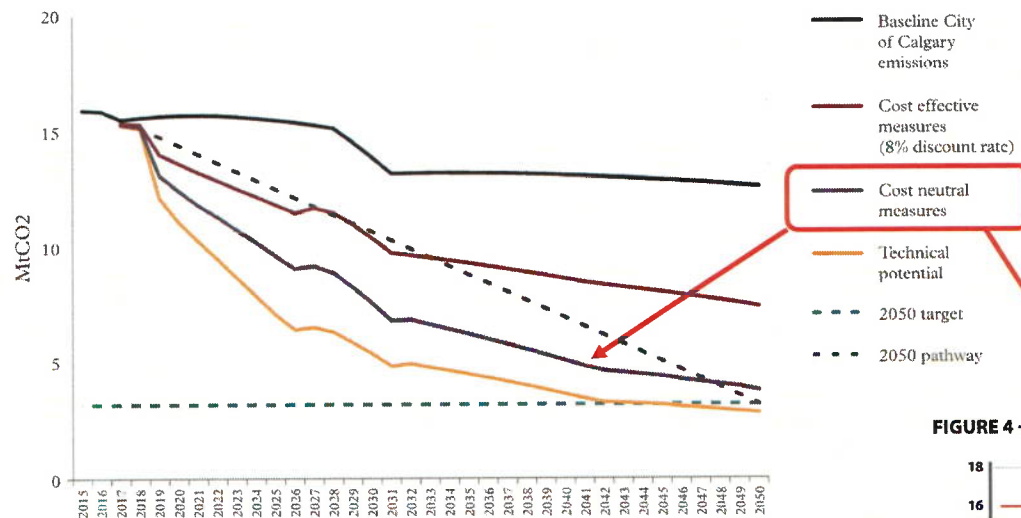
Informs



Is part of



Context – “the Leeds study”



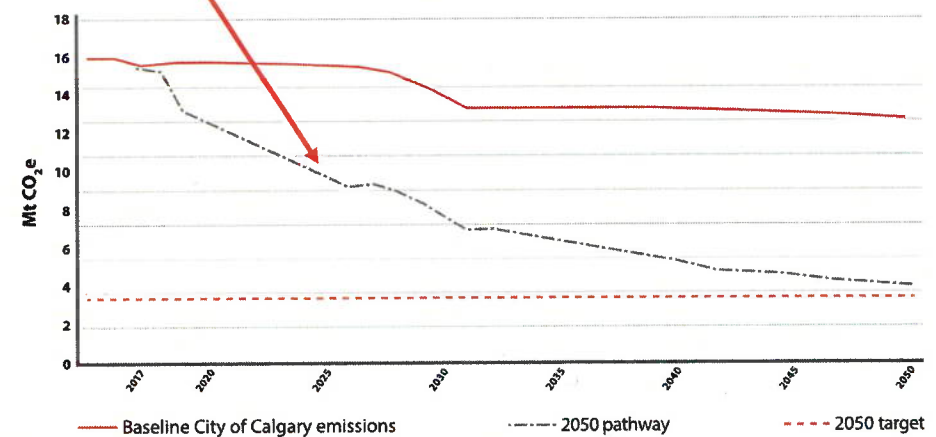
“Leeds study”

Potential GHG savings (relative to baseline):

- **41%** through **cost effective** investments
- **70%** through **cost neutral** investments
- **77%** with exploitation of the **technical potential**

Climate Mitigation Action Plan

FIGURE 4 – CALGARY'S POTENTIAL FUTURE EMISSIONS UNDER THE BASELINE AND CARBON REDUCTION SCENARIOS



1 – The “Cost Neutral” scenario needs financing

- Cost neutral scenario: *“deployment of all measures that could be afforded if the benefits from the cost effective measures were captured and reinvested in future low carbon options”*
- THIS WILL NOT HAPPEN SPONTANEOUSLY
 - “Cost neutral” for the economy as a whole, but there will be winners and losers
 - Why would someone invest the profit of a cost effective measure in one that is NOT cost effective?
- CN needs someone to “redistribute” the costs and profits, and find/create/support the financial mechanisms to make the measures happen

PROGRAM 1: ENERGY PERFORMANCE STANDARDS (Climate Mitigation Action Plan)

“this program focuses on supporting energy performance beyond code through incentives and access to financing”

- Great!
- Note: the Cost Neutral scenario requires lots of interventions (including some aggressive ones)
 - Focus on “access to financing”? (e.g., PACE)

2 – Finance the measures that save the most GHG

- They get us closer to the target
- The most “GHG effective” interventions are not necessarily the most “cost effective”
- Findings of the Multi Criteria Analysis
 - People have concerns about the more aggressive measures
 - Need for “early adopters” to accelerate market transformation

GHG effective (Residential)

Housing type	Intervention	Description	Total carbon savings (lifetime, Mt)
single family house	Retrofit 7	Net Zero Energy Building	86
single family house	Retrofit 6	Upgrade to high performance base + Heat pump	71
single family house	Retrofit 5	Upgrade to high performance-base	67
single family house	New 6	Net Zero Energy Building	57
single family house	New 5	Upgrade to high performance base + Heat pump	49
single family house	Retrofit 4	Upgrade to mid performance-base	44
single family house	New 4	Upgrade to high performance base	43
single family house	Retrofit 3	Upgrade to code + Heat pump	32
single family house	Retrofit 2	Upgrade to code	24
Townhouse	Retrofit 7	Upgrade to code	22

Cost effective (Residential)

Housing type	Intervention	Description	Cost (\$)
single family house	Retrofit 1	Efficient lights and appliances	\$(4)
Apartment	Retrofit 1	Efficient lights and appliances	\$(70)
Townhouse	Retrofit 1	Efficient lights and appliances	\$(60)
single family house	New 1	Code + Efficient lights and appliances	\$(41)
Townhouse	Retrofit 2	Upgrade to code	\$(39)
Apartment	New 1	Code + Efficient lights and appliances	\$(39)
Townhouse	New 1	Code + Efficient lights and appliances	\$(32)
single family house	Retrofit 2	Upgrade to code	\$(31)
Townhouse	Retrofit 4	Upgrade to mid performance-base	\$(31)
Apartment	Retrofit 2	Upgrade to code	\$(22)

Do not match

3 – Stay open to take a regulatory approach (or lower expectations on GHG reductions)

The provisions of the new Calgary City Charter enable The City to implement building code requirements beyond the current provincial building code. However, rather than utilizing this regulatory ability, this program focuses on supporting regulation at the provincial and federal level, and supporting energy performance beyond code through incentives and access to financing.

(Climate Mitigation Action Plan)

- What if the province takes no action?
- Municipal level performance standards are being implemented in Vancouver and Toronto
 - And effectively changing the building industry!
 - (Absolute targets)
- Regulation isn't sexy... but it is more effective than subsidies