

Urban Planning and Economy Integrated Infrastructure Services

Edmonton

**Implementing and Enforcing More
Advanced Energy Codes (UPE01754)**

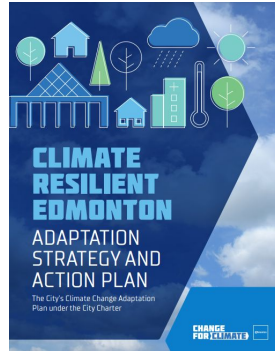
**Implementing Mandatory Energy
Labelling (UPE01755)**

**Implementing Edmonton's District
Energy Strategy (IIS02148)**

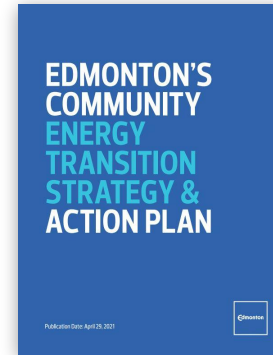
Urban Planning Committee - February 27, 2024

Building a Low Carbon and Climate Prepared Future

Edmonton is committed to bold climate action



Climate Adaptation Strategy



Energy Transition Strategy

Climate Prepared and Emission Neutral Buildings

Highly energy
efficient

Supplied with low
carbon energy

Ready for the impacts of
a changing climate



Buildings are Critically Important

39%

of Edmonton's GHG emissions are from buildings
(residential & commercial)

~18%

of average monthly household spending goes to shelter

\$330M

in property damage due to severe weather in Alberta in
2023

(homes, businesses, vehicles)

Looking Forward - New Construction

400,000 additional units are needed for one million more people

Half through new builds

Half through rebuilding of existing homes

Levers of Change - New Construction

POLICY AND REGULATION

PARTNERSHIP AND ADVOCACY

INCENTIVES

**ACTIVATION (EDUCATION AND
AWARENESS)**

INFRASTRUCTURE INVESTMENT

*City of Edmonton
regulation mandating
higher standards not
possible*

Levers of Change - Next Steps

POLICY AND REGULATION



Planning and Development Framework

PARTNERSHIP AND ADVOCACY



Advocacy for Tier 2 Adoption

INCENTIVES



Green Permitting Pilot

ACTIVATION (EDUCATION AND AWARENESS)



Mandatory Energy Labelling
bringing forward in the Planning and Development Framework

Community Insights

85% VIEW IT AS IMPORTANT THAT THEIR HOME IS ENERGY EFFICIENT


74% AGREE AN ENERGUIDE LABEL WOULD BE USEFUL

95% HAVE EXPERIENCED AT LEAST ONE EXTREME WEATHER EVENT IN THE PAST TWO YEARS

Unlike the survey results, targeted stakeholder feedback was mixed.

Looking Forward

- Climate targets require transformational action over the coming decade
- Next steps are still early action
- Additional efforts will be needed, including bringing partners and Edmontonians along the journey

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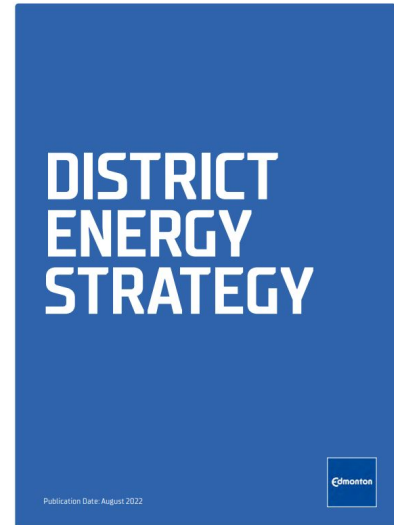
Implementing Edmonton's District Energy Strategy - IIS02148

Renewable and Resilient Energy Systems



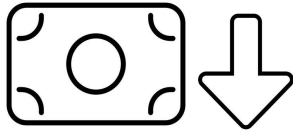
LEGEND

- Undeveloped Future DE Node
- DE Node Initiated
- DE Node Expansion
- ⋯ 'DE Ready' Buildings



Vision: a city-wide, low-carbon district energy network.

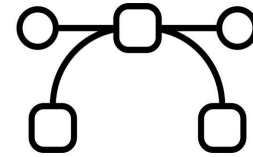
District Energy: Challenges



The low cost and simplicity of natural gas

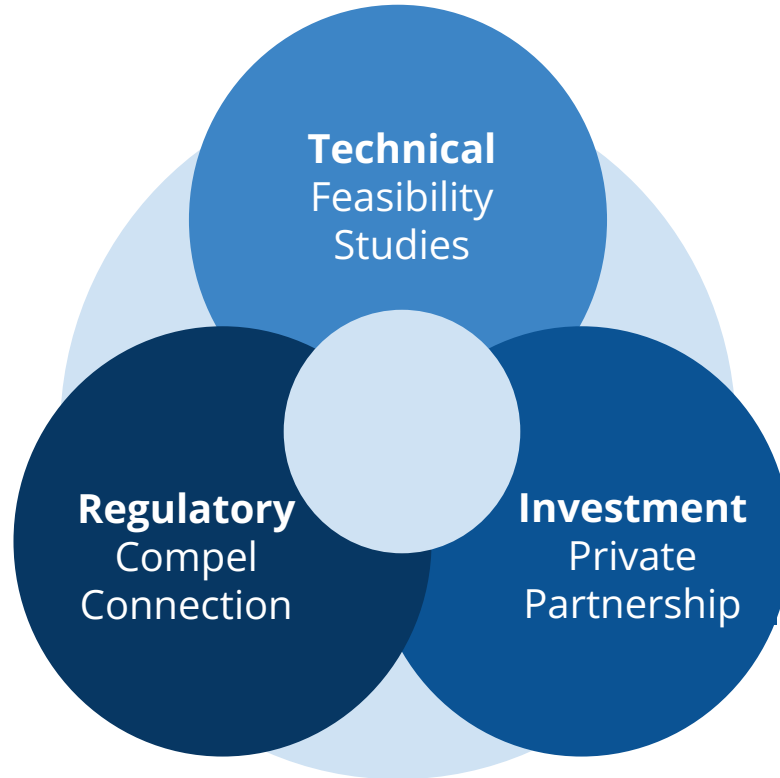


First costs and load risk



Complexity of stakeholders

District Energy Strategy: Priority Focus Areas



Technical: Feasibility Studies

Current

Expansion:

- Downtown
- Blatchford

Initial:

- River Crossing
- Exhibition Lands

Planned

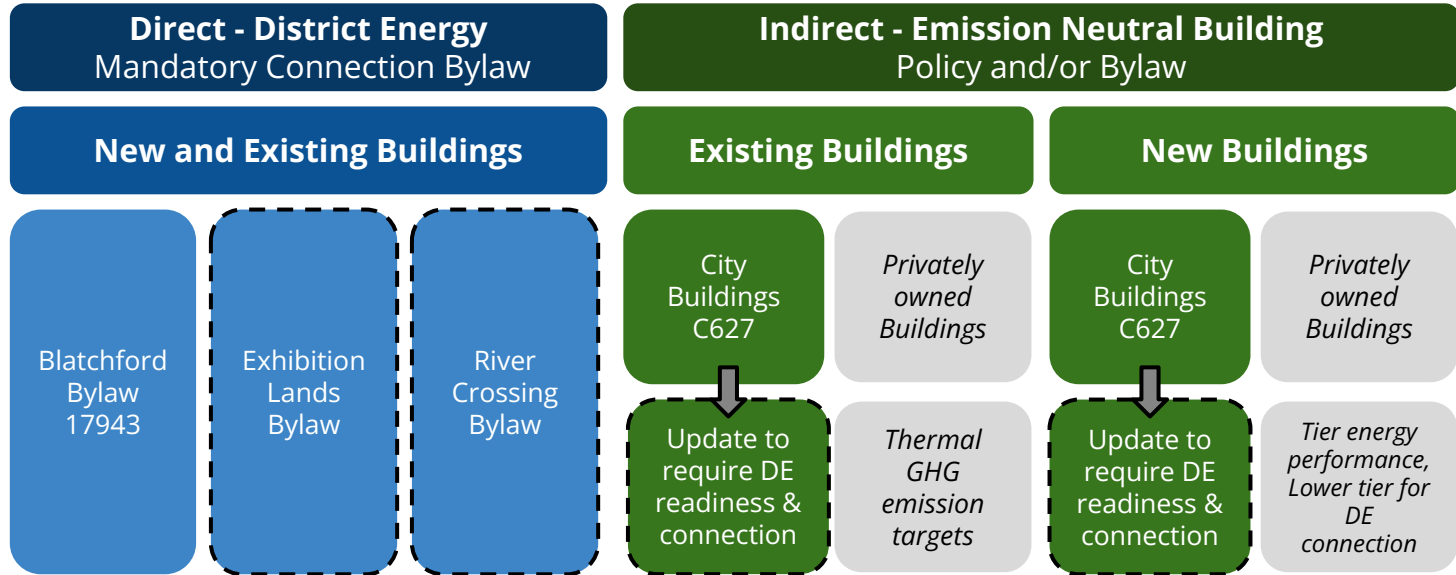
Upcoming:

- Heritage Valley
- Bonnie Doon

Note: may be adjusted as/if opportunity area priority shifts

Objective: analysis will be utilized to determine the preferred low carbon district energy system technology, site service area, system phasing as well as financial information.

Regulatory: Compel Connection



--- Proposed Bylaws and/or Policy Updates

□ Not a viable option / unclear if viable

Investment: Private Partnership

Short Term

Medium Term

Long Term



Research
Partnership Models
& Procurement
Approaches



De-risk private
investment
through policies,
bylaws and/or
incentives



Procurement
& Selection of
Partner(s)



City Divests
Asset(s) to
Private Utility

Next Steps

Through to 2026, Administration will:

- **Advance technical work.** Complete initial feasibility studies in district energy opportunity areas, and continue expanding Edmonton's district energy network
- **Establish a robust regulatory framework** to compel or incentivize connection of new and/or existing buildings within prioritized district energy opportunity areas.
- **Encourage private investment.** Develop a procurement strategy to assess interest and select a private sector partner(s).

Thank you.

Questions?

Urban Planning and Economy
Planning and Environment Services

Integrated Infrastructure Services
Blatchford Redevelopment Office

Edmonton