



CITY POLICY

POLICY NUMBER: C585

REFERENCE:

The Way Ahead
The Way We Grow
The Way We Move
The Way We Green
The Way We Live

ADOPTED BY:

City Council

SUPERSEDES:

New

PREPARED BY: Sustainable Development

DATE: August 25, 2015

TITLE: **Edmonton's Community Energy Transition Strategy**

Policy Statement:

The City of Edmonton will lead Edmonton in becoming an energy sustainable city, exemplified by:

- energy literate citizens with energy conserving lifestyles;
- world-class energy efficiency in all types of buildings;
- world-class energy efficiency in industrial processes;
- a strong shift to active and public transportation as preferred modes of travel;
- an urban form that is carefully designed to avoid unnecessary energy use and optimize free energy from the sun;
- greener electricity from Alberta's electricity grid and local generating facilities;
- a greater portion of electricity produced close to where it is used through district energy systems, combined heat and power systems and renewable and alternative energy technologies; and
- increased electrification of Edmonton's transportation system with passenger vehicles, buses, light trucks and light rail transit powered by clean electricity.

To encourage this transition, the City of Edmonton will:

1. Accelerate energy transition efforts to become an energy sustainable city by mid-century.
2. Focus energy transition efforts on opportunities it controls and influences, including:
 - accelerating the greening of Alberta's electricity grid;
 - attracting a greater proportion of Edmonton's growth to established neighbourhoods;
 - Improving energy efficiency of local industry;
 - increasing the uptake of distributed energy generation;

This policy is subject to any specific provisions of the Municipal Government Act or other relevant legislation or Union Agreement.

- increasing energy efficiency in buildings; and
 - reducing gasoline and diesel use in vehicles.
3. Achieve energy transition goals and targets by:
 - avoiding wasteful energy and carbon-intensive practices;
 - improving energy efficiency; and
 - replacing high carbon energy sources with low carbon sources where justification exists.
 4. Take a lead role in supporting Edmonton's energy transition efforts, including leading-by-example in its own civic operations.
 5. Apply a Market Transformation Approach to accelerate the changes that are needed.
 6. Determine the level and types of financial investment that are needed to achieve Edmonton's energy transition goals, including taking a lead role in finding funding solutions to advance initiatives that are economically justified.
 7. Apply best management practices to ensure City investments and operating decisions are aligned with Edmonton's energy transition goals, including triple-bottom-line analyses, life-cycle analyses and decision making tools that consider externalities and the future prices of energy under different scenarios.
 8. Strive where possible to achieve Edmonton's energy transition goals in partnership with other municipalities and the Province of Alberta.
 9. Create and provide ongoing support for a community leadership body that will play a key role in leading Edmonton's Community Energy Transition Strategy.
 10. Apply the advice of the Citizens' Panel on Edmonton's Energy and Climate Challenges, including:
 - weighing the costs and benefits of each energy transition action;
 - using public and transparent decision making processes so that citizens are confident that energy transition decisions serve the public good;
 - linking City leadership to citizen education; and
 - recognizing and promoting multiple reasons for energy transition.
 11. Pursue the goals in Edmonton's Community Energy Transition Strategy using a dynamic steering approach.
 12. Work collaboratively with Federal/Provincial governments to address Federal/Provincial legislation and policies that are barriers to Edmonton's energy sustainability goals, and encourage Federal/Provincial legislation and policies that support Edmonton's energy sustainability goals.

The purpose of this policy is to:

1. Reduce Edmonton's greenhouse gas emissions to levels consistent with limiting the long-term rise in average global temperature to 2^oC;
2. Increase energy efficiency and conservation in all sectors;
3. Ensure Edmonton's energy delivery systems are resilient to shocks and disturbances from climate change; and
4. Position Edmonton to participate in global economic opportunities as the world transitions to cleaner energy.

For governance and reporting under the policy:

- (a) A governance framework will be established, implemented and maintained to lead and oversee the implementation of Edmonton’s Community Energy Transition Strategy.
- (b) An Eight-Year Action Plan will be established, implemented and maintained. It will be updated and presented to City Council every four years, at the start of City Council’s new term of office, and will report on the following measurable outcomes:

Strategic Action	Measurable Outcome
1. Accelerate energy transition efforts to become an energy sustainable city by mid-century.	<ul style="list-style-type: none"> • Reduced community greenhouse emissions. • Reduced energy use per person. • Increased portion of Edmonton’s electricity generated locally.
2. Focus energy transition efforts on opportunities it controls and influences, including: <ul style="list-style-type: none"> • accelerating the greening of Alberta’s electricity grid; • attracting a greater proportion of Edmonton’s growth to established neighbourhoods; • improving energy efficiency of local industry; • increasing the uptake of distributed energy generation; • increasing energy efficiency in buildings; and • reducing gasoline and diesel use in vehicles. 	<ul style="list-style-type: none"> • Reduced carbon intensity of Alberta’s power grid. • Increased portion of investment attracted to established neighbourhoods. • Reduced energy intensity of Edmonton’s building stock. • Reduced gasoline and diesel use per person.
3. Achieve energy transition goals and targets by: <ul style="list-style-type: none"> • avoiding wasteful energy and carbon-intensive practices; • improving energy efficiency; and • replacing high carbon energy sources with low carbon sources where justification exists. 	<ul style="list-style-type: none"> • Same Measurable Outcomes as for Strategic Actions 1 and 2.
4. Take a lead role in supporting Edmonton’s energy transition efforts, including leading-by-example in its own civic operations.	<ul style="list-style-type: none"> • Reduced greenhouse gas emissions in City Operations.
5. Apply a Market Transformation Approach to accelerate the changes that are needed.	<ul style="list-style-type: none"> • Progression of initiatives from the awareness and education stage to the capacity-building stage to the incentives stage to the mature market/regulations stage.
6. Determine the level and types of financial investment that are needed to achieve Edmonton’s energy transition goals, including taking a lead role in finding funding solutions	<ul style="list-style-type: none"> • Establishment of community-scale programs identified in Table 4 of Edmonton’s Community Energy Transition Strategy.

Strategic Action	Measurable Outcome
to advance initiatives that are economically justified.	
7. Apply best management practices to ensure City investments and operating decisions are aligned with Edmonton's energy transition goals, including triple-bottom-line analyses, life-cycle analyses and decision making tools that consider externalities and the future prices of energy under different scenarios.	<ul style="list-style-type: none"> • Establishment of specific City of Edmonton procedures setting out requirements for conducting triple-bottom-line analyses, life-cycle analyses, treatment of externalities, and applying conservative long-term energy price assumptions.
8. Strive where possible to achieve Edmonton's energy transition goals in partnership with other municipalities and the Province of Alberta.	<ul style="list-style-type: none"> • Establishment of a formal working relationship with the Province of Alberta to address energy and climate challenge.
9. Create and provide ongoing support for a community leadership body that will play a key role in leading Edmonton's Community Energy Transition Strategy.	<ul style="list-style-type: none"> • Establishment and ongoing maintenance of a community leadership body to oversee the implementation of Edmonton's Community Energy Transition Strategy.
10. Apply the advice of the Citizens' Panel on Edmonton's Energy and Climate Challenges, including: <ul style="list-style-type: none"> • weighing the costs and benefits of each energy transition action; • using public and transparent decision making processes so that citizens are confident that energy transition decisions serve the public good; • linking City leadership to citizen education; and • recognizing and promoting multiple reasons for energy transition. 	<ul style="list-style-type: none"> • Increased levels of citizen support and awareness surrounding Edmonton's energy transition efforts.
11. Pursue the goals in Edmonton's Community Energy Transition Strategy using a dynamic steering approach.	<ul style="list-style-type: none"> • Regular update of Edmonton's Community Energy Transition Strategy at four-year intervals that correspond with the term of City Council.
12. Work collaboratively with Federal/Provincial governments to address Federal/Provincial legislation and policies that are barriers to Edmonton's energy sustainability goals, and encourage Federal/Provincial legislation and policies that support Edmonton's energy sustainability goals.	<ul style="list-style-type: none"> • Same Measurable Outcomes as for Strategic Action 8.

DEFINITIONS

1. District Energy System
Local, centralized energy systems that produce and distribute thermal energy (heating and/or cooling) for customer use.
2. Energy
The full range of energy sources we rely on to meet our wants and needs including both renewable and non-renewable energy sources.
3. Energy Transition
A risk management approach designed to: (a) reduce greenhouse gas (GHG) emissions, (b) increase energy efficiency and conservation, (c) increase energy systems resilience and (d) provide economic benefits through energy leadership and innovation.
4. Greenhouse Gases
Gases such as carbon dioxide, methane and nitrogen oxide which actively contribute to the atmospheric greenhouse effect. Greenhouse gases also include gases generated through industrial processes.
5. Leadership
A process of social influence that maximizes the efforts of others to achieve a goal.
6. Market Transformation
A four stage approach (including: (1) awareness and education, (2) capacity building, (3) incentives and (4) regulations and competitive market mechanisms) designed to achieve a specific market outcome.