

Scope of Energy Transition Strategy and Climate Adaptation Strategy Implementation Operating Service Packages

Background

An investment analysis for the community energy transition strategy identified public and private investments totalling \$41.7 billion over the next 30 years, because of the urgency to act to mitigate the effects of climate change, some of the investments have a higher front-end investment required for accelerated climate actions to reach economies of scale and support local market transformation. The City cannot tackle this challenge alone and private investment and other orders of government must also contribute. Edmonton's targeted share for implementation of the Energy Transition Strategy and Adaptation Strategy over the next four years was identified to be \$640 million for urgent, scaled up climate action. The combination of the unfunded capital and operating services packages for energy transition and climate adaptation represent approximately 90% of the City's targeted funding share for Energy Transition and 70% of the City's targeted funding share for adaptation and approval of all unfunded capital and operating services packages for climate would provide the best alignment to the timelines outlined in the strategies.

The climate file is changing rapidly and often as there are continuously emerging issues, information, and opportunities. The intent of composites is to have flexible climate action funds that will enable the City of Edmonton to be nimble and respond to changes, such as new funding opportunities announced by higher orders of government. Funds would also allow Council to direct funding to priority projects that need further climate action, that may not have funds fully allocated or dedicated.

Prioritization is crucial in order to make meaningful change with limited resources. Administration will develop a prioritization process to allocate funds in a transparent manner that supports the best acceleration opportunities, and includes check-ins with Council to ensure alignment with Council's priorities. This process will reflect best practices in the corporation such as the Business Technology Investments and governance approach (please refer to page 83 of the 2023-2026 Proposed Capital Budget), which has established governance, framework, guiding principles and processes to guide the delivery of business technology investments across the corporation

Work that will be delivered through these service packages will align with the actions in the respective climate strategies. Examples of the types of projects that are expected to be within the scope of each of the climate service packages are listed below.

Energy Transition Strategy Implementation (pg 239)

This package would support new advocacy approaches to collaborate with and leverage relationships to activate energy transition strategy and development of a change management plan to reach the City's goal of becoming a carbon neutral corporation. It will advance at least one "Big Win" action from each of the strategy's four energy transition pathways. Examples of these initiatives are provided below.

- Implementation of District Energy Strategy which represents a real time opportunity to support the delivery of a City-wide decarbonized district energy network in Edmonton. Implementation of this strategy with the funding in this composite includes ensuring buildings are ready to connect through the development of a district energy bylaw, completing feasibility studies and establishing procurement pathways to enable external partnership investment, developing policies and advocating for regulation to ensure regulation supports privately owned district energy system in Alberta and building a district energy database.
- Establishment of a Planning and Development Framework that includes tools, resources, guidelines and standards to catalyze energy transition practices through the city's urban development process. This includes identifying energy transition requirements throughout the entire planning and development continuum in order for Edmonton to transition to a low carbon community. This could include an electric vehicle charging network plan instrumental in the transformative shift to reduce greenhouse gas emissions associated with transportation, and to ready Edmontonians for the shift to electric vehicles.
- Scale up of Clean Energy Improvement Program (CEIP) from the existing pilot program supports emission neutral buildings through energy retrofits in the community. The majority of funding needed for the scale up of the CEIP is expected to be supported by a borrowing bylaw. This unfunded service package would support funding that would not be covered under the borrowing bylaw.
- Development of a nature based solutions framework that fosters investment in natural carbon storage and strengthens our connection to nature. This could include private property tree incentives and a conservation off-set program, as well as tools, resources and policies needed to advance these critical carbon sequestration projects.

Supplemental Community Energy Transition Implementation (p 241)

This package would support going “further and faster” on actions to enable energy transition in the community. This could include accelerating work in the Energy Transition Strategy Implementation service package or the development and implementation of the initiatives such as the following:

- programs to address energy poverty (e.g., incentives for Just and Equitable Transition, energy efficient affordable housing and associated monitoring and forecasting tools)
- policy, standards and programs to enable increase in renewable energy including incentives for battery storage for green power systems, a program to activate aggregate purchasing of renewable energy for Edmonton organizations and policy or regulatory changes to support adoption of renewable energy
- programs and/or policy/regulation to support low carbon and emission neutral buildings including pilot program for hydrogen heating at neighbourhood scale, performance based incentive for emission neutral buildings, and benchmarking and voluntary disclosure of embodied carbon in new construction
- strategy to transition to a circular economy that addresses recovery and reuse of resources to reduce consumption based carbon emissions

- transportation marketing program to encourage Edmontonians to adopt low emission transportation plans
- policy and programs supporting urban agriculture and the use of City owned land and public spaces to advance resilient food systems
- community level energy transition planning that creates social connections through climate action
- Collaboration with the Climate Innovation Fund on initiatives to develop green economy solutions for Edmonton's carbon emission challenges.

Supplemental Corporate Energy Transition Implementation (p 241)

This package would support going “further and faster” to advance energy transition in the City's own civic operations and make progress towards becoming a carbon neutral corporation. This package will improve science and evidence based decision making processes such as carbon accounting, emissions monitoring, modeling and forecasting, and enhanced disclosure of energy performance. In addition, this packages could support accelerating work in the Energy Transition Strategy Implementation service package or development and implementation of the initiatives such as the following:

- policy and program reviews and updates to support improved climate resilience outcomes related to City services (e.g., urban planning, procurement, and design/construction/operation of City infrastructure) and to establish new funding approaches that reinvest energy savings into into new energy efficiency projects
- internal Carbon Reduction Cost Saving program that focuses on reducing emissions across all business areas through operational changes
- “First buyer” program that uses the City's purchasing power to support creation and access to low carbon and carbon capture products
- potential procurement of renewable heating energy/fuels/offsets
- Just and equitable framework for decision making in support of climate goals
- research and studies on emerging technologies and solutions that can accelerate or enhance actions to mitigate and respond to climate change.

Climate Adaptation Strategy Implementation (pg. 238)

This package focuses on preparing the community for a changing climate through proactive risk management and includes a focus on developments, as well as supporting critical operational changes in the corporation necessary to reduce vulnerabilities to most significant climate risks. .

Deliverables in this package may include the following:

- risk management initiatives to understand and prepare for changing climate including a long term water security assessment and policy changes to minimize changing wildfire risk and urban heat island impacts, among others
- incentive programs to support climate risk assessments and improvements in land developments
- improved climate analytics including new tools, data and resources such as climate change modeling to support decision making and climate risk mapping

- creation of a climate risk and resilience lens and process to provide decision makers information on climate risks and impacts, analogous to GHG impacts from carbon budgeting
- climate change planning and development framework that includes tools, resources, and standards to improve integration of climate adaptation and resilience in urban development

Supplemental Community Adaptation Implementation (p 240)

This package represents going “further and faster” to reduce the community risk to climate change impacts and focuses on increasing social resilience capacity for the impacts of climate change. This could include accelerating work in the Climate Adaptation Strategy Implementation or deliverables such as the following:

- climate change resilience hubs action plan and program to build capacity in the community to respond to climate change impacts
- community level resilience programs that creates social connections through development of local climate action planning and implementation

Supplemental Corporate Climate Adaptation Implementation (p 242)

This package represents going “further and faster” to advance climate resilience in the City’s own civic operations. This could include accelerating work in the Climate Adaptation Strategy Implementation or deliverables such as the following:

- development of a climate resilient infrastructure and facilities renewal strategy
- updating and aligning design and construction standards to incorporate climate change modeling data
- operational changes to City services and programs to minimize vulnerabilities to changing climate risks.