

Environment and Climate Review

Edmonton is only resilient to a changing climate when all its residents are also resilient. This requires an inclusive approach that considers the unique needs of different communities, including vulnerable and marginalized populations. When compared to the general population, those who experience homelessness or are at risk of being unhoused, are disproportionately burdened by climate risks. They are more vulnerable to climate impacts, have higher exposure to them, and often have fewer opportunities to adapt to a changing climate.

Work on a corporate Homelessness and Housing Services Plan can have implications in the two main areas:

- i) Increasing climate resilience.
- ii) Supporting equitable transition to a low-carbon future.

For each of these areas, the table below outlines various environmental and climate risks and opportunities including the broader opportunity to apply a climate lens to future work related to the corporate Homelessness and Housing Servicing Plan.

Increasing climate resilience	
Climate risks amplify existing societal inequalities, causing the marginalized or vulnerable segments of the population to experience climate impacts disproportionately compared to the general population. As our ecosystem and social systems continue to be affected by climate impacts, the proportion of population at risk may also increase. By understanding how climate risks affect those who experience homelessness or at risk of becoming unhoused, the City can proactively improve climate resilience for this segment of the population.	
Related Action	Environment and Climate Risk/Opportunity
The Homelessness and Housing Services Plan is based around three goals: <ul style="list-style-type: none"> • Reduce new entries into homelessness; • Increase housing outcomes for unsheltered 	Climate change is already altering our environment and its impacts will intensify over time, including from extreme weather events. As temperatures rise, communities may experience increased heat waves, droughts, risks of wildfires, and ecosystem degradations. The City supports those who are experiencing homelessness during extreme weather events as outlined under policy C620. In addition to effects of extreme weather events, climate risks continue to pose significant challenges to infrastructure

<p>individuals;</p> <ul style="list-style-type: none"> • Prioritize the safety and wellbeing of individuals experiencing homelessness in emergency situations. 	<p>and public health, disproportionately affecting those who experience chronic homelessness, unsheltered or house insecure individuals, as they tend to be marginalized and have constrained resources to overcome climate risks. They are also highly prone to exposure to extreme events that cause climate-induced health impacts and increase socio-economic disparities. Severe health impacts from extreme events are projected to intensify in cities.¹</p> <p>Achieving climate resilience for the population segment that is experiencing homelessness or at the risk of being unhoused, is key to improving the overall resilience of the City's systems and its residents.</p> <p>Considerations for Climate Risks within the Homeless Serving System of Care:</p> <p>Additional research that could support the application of a climate lens to the Plan may help in assessing future needs within the homeless serving system of care, as the needs will depend on the level of population being served, which can be impacted by a changing climate. Such foresight may help integrate the available resources within the City to the identified need of coordinating homelessness prevention efforts that connect housing insecure Edmontonians to appropriate supports so as to reduce inflow into homelessness year over year, and to the overall root causes of homelessness. It is noted, to realize this opportunity would require additional research, engagement, and expansion to the mandate of the homeless serving system of care.</p> <p>Considerations for Climate Resilience in Moderating Health Impacts:</p> <p>Application of a climate lens to the Pathways Out of Poverty pillar of the Community and Safety Well Being framework, can improve climate adaptation planning and can increase resilience in managing climate risks to health. A climate lens can help understand the needs that will alleviate exposure,</p>
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¹ Intergovernmental Panel on Climate Change (IPCC). (2022). Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Doi:10.1017/9781009325844.

	<p>which in turn, can inform decision making. This could involve engaging with marginalized communities such as those who are experiencing chronic homelessness or at risk of being unhoused. Efforts directed to improving social and economic conditions of marginalized communities can reduce vulnerability to climate-related health impacts in addition to the contribution the City makes towards health and safety to those who are experiencing homelessness.</p>
<p style="text-align: center;">Supporting Equitable Transition to a Low Carbon Future.</p> <p>An important part of an equitable transition to meet the City's goal of a low-carbon future is ensuring vulnerable and marginalized populations have access to energy technology with low greenhouse gas (GHG) emissions to positively contribute to climate action. Homelessness prevention actions that integrate considerations of reducing energy needs/costs can also help reduce displacement back into homelessness.</p>	
<p>Related Action</p>	<p>Environment and Climate Risk/Opportunity</p>
<p>Provision of affordable and supportive housing to prevent homelessness.</p>	<p>The structural solution of increased affordable housing supply is a key poverty elimination tool, and climate resilience mechanism.</p> <p>The development of new housing will cause an increase to community greenhouse gas emissions. Incorporating approaches to reduce emissions associated with construction and when the dwelling is in use, can reduce these emissions.</p> <p>Energy is typically the highest controllable operating expense in many affordable multi-family housing.² In Canada, 17 percent of those housed in non-market and subsidized housing experience energy poverty due to high energy costs.³ Energy needs are expected to increase as climate change continues to increase frequencies and magnitudes of extreme heat days and heat waves, cold snaps, and frost days. Alleviating energy burden is a means of achieving equitable energy transition. However, affordable housing</p>

²Drehobl, A., and Ross, L. (2016). Lifting the High Energy Burden in America's Largest Cities: How Energy Efficiency Can Improve Low Income and Underserved Communities. American Council For Energy-Efficient Economy.

³Federation of Canadian Municipalities (FCM). (2022). Understanding Energy Efficiency: A guide for affordable housing providers. Retrieved on May 13, 2024 from: <https://greenmunicipalfund.ca/sites/default/files/2022-09/sah-understanding-energy-efficiency.pdf>

	<p>developers have expressed there is a premium on building energy efficiency measures implementation into their projects. This can be an up to 40 percent premium to reach net zero development.</p> <p>Considerations for Maintaining Sustainable Housing: There is a risk that integrating higher energy efficiency measures will lead to additional upfront costs which impact the quantity of housing supply and the levels of affordability for renters. It can also affect the depth of affordability that providers can achieve upfront, jeopardizing access to the capital funding for more housing units. If higher energy efficient targets for affordable housing projects are implemented, a downward adjustment to affordable housing targets would be required.</p> <p>Further assessment on current housing units targets would be needed to determine additional funding to meet higher energy efficiency for Affordable housing to meet the City's emissions neutral buildings standards by 2030.⁴</p> <p>Additional research, engagement and analysis would be needed to explore possible options based on the context and the nature of the homeless serving system of care practiced in Edmonton.</p> <p>Considerations for Sustainable Construction: The demand for Supportive and Affordable housing units exceeds the supply. However, in the longer term, ensuring a balanced approach to these housing projects, will help mitigate greenhouse emissions.</p> <p>All forms of development need to be cognizant of environmentally sensitive locations such as in flood plains, to avoid unintended environmental degradations. Considerations to incorporate sustainable construction practices such as sourcing building materials with low carbon emissions can help reduce emissions associated with new construction.</p>
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⁴ City of Edmonton.(2024). Procedure under C627 Climate Resilience Policy - Climate Resilient City-Funded, Non-City Owned Buildings.

Attachment 6

	<p>Proactively retrofitting existing housing units will also help lower the contribution of buildings to the carbon footprint, and facilitate a low-carbon future.</p> <p>To realize these considerations would require additional research and analysis, given that within the Affordable housing sector, retrofits often require contributions from government entities as the upfront cost of retrofits are outside of the financial capacity of nonprofits in the sector.</p>
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