

TOWARDS A WHOLE-OF-GOVERNMENT APPROACH FOR CLIMATE PLANNING

Developments in Winnipeg's *Community Energy Investment Roadmap*

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Abstract

Cities around the world are developing strategies to address the financial implications of climate change. Integrating climate considerations across city decision-making processes is key for implementation, but there is no one-size-fits-all solution. This case study examines what the City of Winnipeg, Manitoba has done so far to mainstream sustainability within city processes and work that Winnipeg sustainability staff are doing to continue that progress.

In 2022, Winnipeg published its *Community Energy Investment Roadmap* [CEIR]. The CEIR contains financial modelling and emissions calculations for the city's pathway to net zero emissions by 2050. It can be used as a tool to take climate action beyond the 2018 *Climate Action Plan*. To move towards implementation, Winnipeg sustainability staff are designing climate lens questions tailored to the needs of diverse cases to help colleagues consider climate in their decisions.

1.0 Background & Context

Climate change has significant financial implications for cities. Over the past decade, extreme weather events including flooding, hail, strong winds, and fire have caused billions of dollars of damage to infrastructure across Canada (City of Hamilton & ICLEI Canada, 2022). Indirect costs due to supply chain disruptions, power outages, and rising healthcare needs further increase this figure (ICLEI Canada, 2022). For every dollar invested in adaptation measures now, governments will save \$13-\$15 in the long term, and contributing to international emissions reduction efforts to mitigate climate impacts will have even greater payoff (Sawyer et al., 2022, p. 14). Energy efficiency measures also help save on energy costs in addition to reducing greenhouse gas emissions (US Environmental Protection Agency, 2022). Without investing in adaptation and mitigation, Manitoba is projected to be the third hardest-hit region in Canada after the North and Alberta in terms of per-capita GDP losses under a high emissions scenario (Sawyer et al., 2022, p. 55).

Cities around the world are working to integrate climate considerations into budgets and policies across departments. A climate budget is a city budget that integrates emissions reduction figures into financial calculations, helping link climate action to ongoing city processes and distributing the responsibility across departments (C40 Cities & Arup, 2022). The City of Pittsburgh, PA, recently completed a process of analysing the climate impact of every program in its operating budget and evaluating where changes can be made to shift towards net zero emissions using existing resources (Thompson, 2023). The City of Edmonton, AB published a report on the emissions reductions or increases associated with items in its capital budget and how those changes stack up against the city's emissions reduction targets (City of Edmonton, 2022).

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- Sawyer et al., 2022, p.14

Adjusting existing processes can be difficult, and sustainability planners may struggle to get buy-in across departments. Through a global pilot program involving 12 cities, C40 found that support from high-level city leadership was crucial for developing and implementing climate budgets. Building collaboration across departments to get staff from outside the sustainability department on board and facilitate skill sharing is also important. Taking a phased approach is often helpful, and adapting to local contexts is key: there is no one-size-fits all solution (C40 Cities & Arup, 2022).

Understanding approaches used by a variety of other cities will help sustainability planners decide on the best strategy for their city. This case study describes the approach that the City of Winnipeg, MB has taken so far and the strategies Winnipeg sustainability staff are currently working on, as outlined in the recently published *Community Energy Investment Roadmap*.



Figure 1: Crews responding to flooding along the river walk. From the Winnipeg Free Press, 2013.

2.0 Facts of the Case

Winnipeg’s 2018 *Climate Action Plan* [CAP] contains several actions to help the City start integrating climate considerations across planning and budgeting decisions. Four key examples include: first, requiring a section on CAP alignment in all Council reports; second, adding climate considerations to land use, transportation, and development policies in the *OurWinnipeg* update; third, economic modelling of the costs and benefits of implementing the CAP; and fourth, incorporating climate priorities into budgeting (City of Winnipeg, 2018, pp. 57–59). In the 2022 Annual Report on the CAP, most of these actions were already underway (Raddatz, 2022).

The status of the second action is listed as “Significant progress” in the 2022 Annual Report (Raddatz, 2022, p. 18). *OurWinnipeg 2045* was adopted as the official development plan for Winnipeg in May 2022. Climate action targets, including reaching net zero by 2050, are the first policy listed under the Environmental Resilience Pillar (City of Winnipeg, 2022, p. 22). There are other climate policies listed too, relating to land use, transportation, and development as indicated in the 2018 CAP (City of Winnipeg, 2022, pp. 22–23). *OurWinnipeg 2045* is the primary development plan for the city so it determines the direction for other city policies (City of Winnipeg, 2022, p. 5).

For the third action, detailed modelling of greenhouse gas emissions and economic implications of planned climate actions was completed and published in the *Community Energy Investment Roadmap* [CEIR] (Raddatz, 2022, p. 6). The CEIR goes beyond the targets established in the 2018 CAP to analyze pathways to net zero emissions, in line with the Paris Agreement and *OurWinnipeg 2045* (City of Winnipeg & Sustainability Solutions Group, 2022, p. 19). Not only does the CEIR fulfill the objective of modelling emissions and economic implications, it also will serve as a basis for the planned update to the CAP (Raddatz, 2022, p. 7)

The fourth action, incorporating climate priorities into budgeting processes, is the only one of these examples that is listed as Not Started in the 2022 Annual Report (Raddatz, 2022, p. 16). The CEIR contains data that will support this process and proposes new approaches for including climate in decisions about budgeting and expenditures to help the city move forward (City of Winnipeg & Sustainability Solutions Group, 2022, p. 69).





Include a section on CAP alignment in all Council reports	 Complete
Integrate climate considerations into <i>OurWinnipeg 2045</i>	 Significant progress
Model GHG emissions impacts and economic implications of planned climate actions	 Complete
Incorporate climate priorities into budgeting processes	 Not started

Figure 2: Four selected actions from Winnipeg’s 2018 Climate Action Plan that help mainstream climate across City decisions

The first example action is marked complete in the 2022 Annual Report because all Council reports include a section on CAP alignment (Raddatz, 2022, p. 16). However, the amount of information that reports cover in that section varies widely. For example, a recently approved plan to add landscaping around an existing building simply states “Consideration was given as to whether this report connects to any of the specific Goals and Objectives in the Winnipeg Climate Action Plan and it was determined that the WCAP is not applicable to this specific report” (*Plan Approval - 1519 Regent Avenue West*, 2023, p. 8).

3.0 Outcomes

The CEIR provides detailed financial modelling that could be used to help Winnipeg move forward with integrating climate considerations into budgeting decisions. Overall, the analysis found that working towards net zero will generate twice as much in savings as it costs the city in up-front investment (City of Winnipeg & Sustainability Solutions Group, 2022, p. 10). The CEIR also introduces the idea of a climate test as a means of evaluating investments for their impact on greenhouse gas emissions (City of Winnipeg & Sustainability Solutions Group, 2022, p. 13).

The CEIR shows the financial implications of transitioning to net zero compared to a business-as-usual scenario. Based on Winnipeg’s current emissions profile, there are five “big moves” that are key to the transition: retrofitting buildings for energy efficiency, decarbonizing transportation, increasing local renewable energy production, reducing waste and increasing waste diversion, and improving water efficiency (City of Winnipeg & Sustainability Solutions Group, 2022, p. 26).

The CEIR includes information on the marginal abatement cost for emissions-reduction actions in each of these categories. For example, increasing transit use has a marginal abatement cost of -\$3,750 per tonne CO₂-equivalent, meaning that over the lifetime of the project it generates significant financial savings in addition to reducing emissions (City of Winnipeg & Sustainability Solutions Group, 2022, p. 47). Understanding these big-picture numbers will help the city make choices that are both financially sound and climate smart.

As a high-level document, the CEIR identifies sector-specific targets and actions that will get Winnipeg to net zero emissions. It does not propose specific policies or mechanisms that the City could implement for each

action (City of Winnipeg & Sustainability Solutions Group, 2022, p. 10). Developing a climate lens to assess each policy and project that the City develops for alignment with pathways to net-zero will be important to support the operationalization of the CEIR (City of Winnipeg & Sustainability Solutions Group, 2022, p. 69).

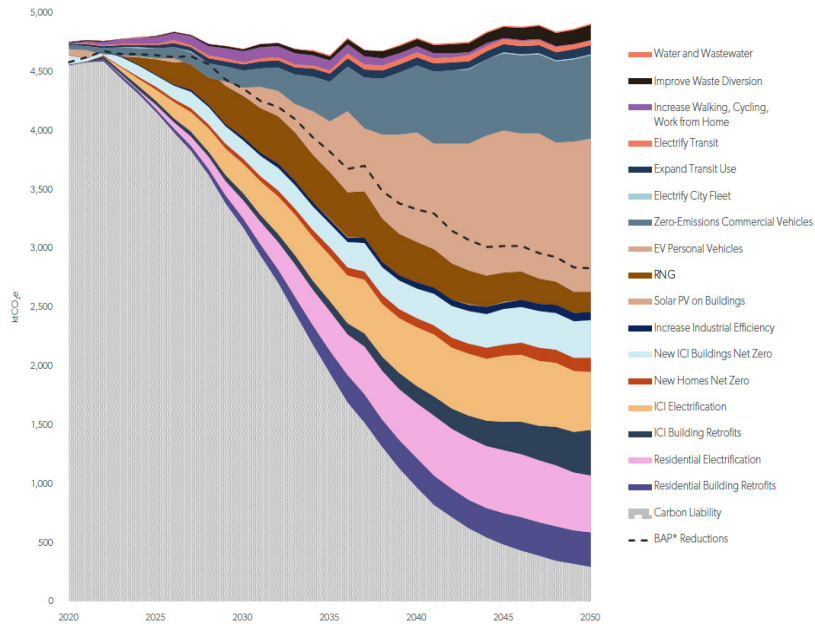


Figure 3: Wedge diagram showing the incremental GHG emissions decreases by action in the Net-Zero Scenario. From the *Community Energy Investment Roadmap*, 2022, p.29.

Sustainability staff at the City of Winnipeg are in the process of developing climate lens questions that will fulfill the goals of the CEIR and bring other departments into conversations about climate change. By assessing each project or policy for its impact on emissions, the City can avoid adopting measures that would cause setbacks in reaching greenhouse gas reduction goals (City of Winnipeg & Sustainability Solutions Group, 2022, p. 13). The climate lens will also help identify projects and policies that make the strongest contributions towards emissions reduction targets in each sector.

4.0 Lessons Learned

Overall, the CEIR shows that transitioning to net zero emissions is a good investment for Winnipeg. The financial modelling in the CEIR shows that a total investment of \$23 billion from 2022-2050 will generate savings of \$53.7 billion and revenue of \$4.9 billion (City of Winnipeg & Sustainability Solutions Group, 2022, p. 37). Though the next few years will require significant expenditures, these investments will start paying off by 2027. The savings will come from reduced energy costs, reduced maintenance costs, avoided carbon costs under carbon pricing strategies, and revenues (City of Winnipeg & Sustainability Solutions Group, 2022, p. 38).

The CEIR makes a compelling argument for climate action based solely on financial analysis. It also points out that there are social benefits to climate action, such as reduced health impacts, cost savings for low-income households, and opportunities to prioritize equity-focused policies, which are also important reasons to push forward.

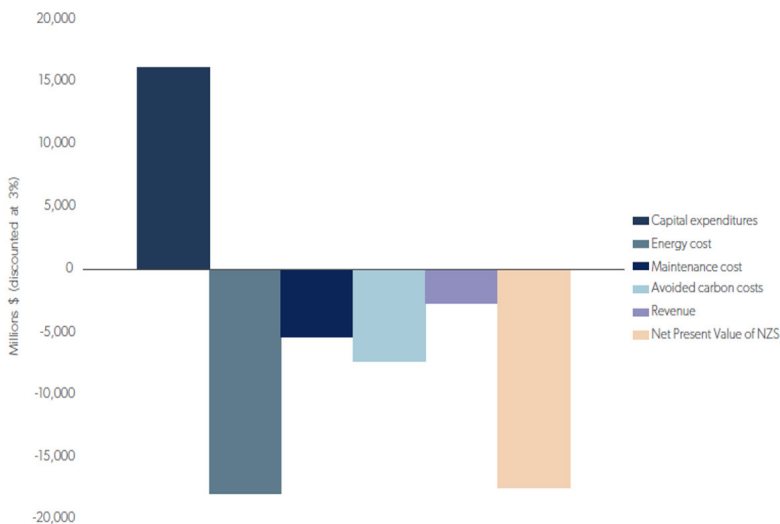


Figure 4: Present values of investments and returns for the net-zero scenario, discounted at 3%, from 2021-2050 (costs are positive, savings and revenue are negative). From the *Community Energy Investment Roadmap*, 2022, p.38.

By using a climate lens, “staff can ensure that all proposals are ‘tested’ against climate targets and revised accordingly”.

- City of Winnipeg & Sustainability Solutions Group, 2022, p. 69.

Not only are these benefits important in their own right, they will also generate additional cost savings beyond what is factored into the CEIR’s analysis (City of Winnipeg & Sustainability Solutions Group, 2022, p. 12).

A climate lens will be a critical piece in achieving these emissions reductions and cost savings because it connects overall climate targets to day-to-day decisions. By using a climate lens, “staff can ensure that all proposals are ‘tested’ against climate targets and revised accordingly” (City of Winnipeg & Sustainability Solutions Group, 2022, p. 69). The development process for the climate lens introduced in the CEIR centres these four principles:

First, the **climate lens should be applicable for smaller-scale decisions**. Not every decision requires the approval of Council or is determined by overall city budgeting processes. There are many day-to-day policy and procurement decisions that have sustainability impacts and take involve different levels of authority within the organization. In some cases, individual staff members have the authority to make procurement decisions, such as acquiring new equipment for a project.

Second, the information requested for each project to assess its climate alignment should be **accessible for city staff and not create an onerous reporting burden**. For example, asking for precise calculations of emissions savings for each project would likely make climate action feel like a chore. Having support and cooperation from departments is crucial to integrating climate

considerations across all decisions. While the climate lens will prompt project managers to consider climate in their proposals, it aims to do so using more qualitative assessments or indicators that people already have at hand.

Third, to be most accessible, the **questions for the climate lens will need to be case specific** to best incorporate the metrics that are already being used. For example, in planning a transportation network, decisions about network design will have different kinds of climate impacts than decisions about materials used to build related infrastructure. Ways of working also vary between departments. Tailoring the questions to each situation will help get buy-in from other staff members and enable them to provide relevant information through accessible metrics.

Finally, integrating climate considerations naturally into small scale decision-making processes may help **facilitate a culture shift towards sustainability**. This will contribute to support for building climate into bigger budgeting decisions. When city staff are accustomed to thinking about the climate implications of their day-to-day decisions, they will be more likely to be in favour of larger organizational and budgeting shifts towards sustainability. This will help make the transition to a climate-oriented budget as smooth as possible.

Winnipeg's approach to climate action and to climate governance and budgeting are unique to the Winnipeg context but may hold important lessons for other similar cities. Not everyone can make the leap directly to city-wide climate budgeting as seen in the case of Pittsburgh or the cities supported by C40's pilot. Building a financial case for implementing climate policies and integrating climate considerations into day-to-day decisions can help lay the foundation for including climate in city budget conversations while jumpstarting local climate action.

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Figures

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