



An Equity Review of Calgary Climate Strategy – Pathways to 2050

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Introduction

Municipal governments have a responsibility to address ongoing, and in some cases increasing, inequities experienced by specific peoples and communities. Many of the inequities are intersectional - such as precarious housing, employment and poor health outcomes - and can only be addressed through holistic and integrated actions. These actions must be shaped by the meaningful engagement of equity-deserving people with relevant lived experience.

As many municipalities around the world increase the level of ambition in their climate strategies, they are purposefully planning climate actions and investments that contribute to critical, equity-related priorities. There is growing recognition that within cities some residents and communities disproportionately experience the impacts of climate change, and this is linked to other experiences of inequity and discrimination connected to residents' identities and socio-economic status, for example, age, racialization, gender, disability, sexual orientation, income, immigration status, health status and place of residence. Applying an equity analysis to climate plans must go beyond a minimal, harm reduction approach – that focuses narrowly on preventing City climate actions from perpetuating and exacerbating existing inequities – and use this opportunity to improve the quality of life of equity-deserving residents.

Firstly, City governments must urgently prioritize actions to protect disproportionately impacted residents and communities from the imminent threats posed by climate disruption to their health, wellbeing and livelihoods. Secondly, cities have a huge opportunity when updating or developing new strategies to design them in such a way that they create opportunities and benefits for equity-deserving people and communities.

Lastly, most policymakers would agree that for climate mitigation and adaptation strategies to be successful, they ultimately require the full participation of all residents (as community members, workers, tenants, homeowners and business owners) to achieve the complete range of climate actions needed to become a low- or zero-carbon city.¹ To achieve these interrelated goals, cities have to meaningfully engage equity-deserving people and communities on an ongoing basis – through policy design, implementation and evaluation cycles.² This will require dedicated time and resources, and a commitment to relationship-building and learning.

We applaud the City of Calgary for undertaking an equity review in this update of its *Calgary Climate Strategy*, and we are pleased to submit our observations and recommendations.



Scope of this Equity Review

The Toronto Environmental Alliance (TEA) is an environmental non-governmental organization (NGO) with over 30 years of experience in municipal environmental policy development, coalition building and community organizing. We have worked with collaborators in different Canadian municipalities to advance a stronger equity focus in climate policies and share good practices to promote greater inclusion of equity-deserving communities in climate action.

Toronto Environmental Alliance acknowledges the land we work on, which has been a site of human activity for over 15,000 years. Toronto / Tkaronto is the traditional territory of many nations including the Anishinaabe Mississaugas, the Chippewa, the Haudenosaunee and the Wendat peoples and is now home to many diverse First Nations, Inuit and Métis peoples. We also acknowledge that Toronto is covered by Treaty 13, also known as the Toronto Purchase, with the Mississaugas of the Credit.

As a settler organization, it is important to recognize that we benefit from colonial systems of extraction and land dispossession, and that environmental degradation, climate change, pollution and waste, which our work aims to prevent, are deeply connected to colonialism. To address the root causes, our environmental work must strive to disrupt colonialism and support Indigenous people.

TEA was contracted to provide an equity-focused review of the City of Calgary *Climate Resilience Strategy* (2018) and provide support to the City through this update of its *Calgary Climate Strategy – Pathways to 2050* (2022) (referred to as the “Climate Strategy” or the “Strategy” in this report). As an independent contractor, and not a City of Calgary stakeholder, our role was to provide guidance and feedback to help to advance the City’s expressed aims of including a strong equity analysis in its climate plans, creating more opportunities for equity-deserving peoples and communities to shape the Strategy, and ultimately maximizing the positive equity-related impacts and benefits for Calgarians through the Strategy.

We conducted this review from September 2021 to May 2022, which involved the following steps:

- Review of background information provided by City staff
- Meet virtually with City staff to discuss the Strategy update process
- Equity Review of City of Calgary *Climate Resilience Strategy* (2018)
- Support the design and facilitation of Climate Equity Workshops with City of Calgary staff, social agencies, and equity-deserving residents; and theming & coding of workshop feedback for the City’s What We Heard report
- Equity Review of draft and final *Calgary Climate Strategy – Pathways to 2050* (2022)

We note that TEA's original feedback from our Equity Review of City of Calgary *Climate Resilience Strategy* (2018), and other draft materials, has been included in this final review *Calgary Climate Strategy – Pathways to 2050* (2022) where relevant.

It is important that TEA acknowledges the limitations of this review. Although we have worked with other municipalities and governments to provide expert feedback, and have done extensive work on environmental issues intersecting with social, racial and economic justice, our location in Toronto limits our perspective to a high-level external analysis. As such, we relied on City of Calgary staff and the participants in the Climate Equity Workshops to share information specific to the local context, experiences and perspectives.

In addition, while TEA works to achieve environmental justice goals with diverse communities and partner organizations, our organization does not represent specific equity-deserving peoples and communities. As reviewers, we acknowledge that our various individual experiences of privilege and/or inequity may have influenced this work, and that we carry either conscious or unconscious biases which may influence our analysis.

In our review, we have aimed to summarize considerations, concerns, and recommendations that will support the City of Calgary to conduct further equity-focused analysis and meaningfully engage local equity-deserving communities on a continuing basis. Going forward, it will be of critical importance that these local perspectives inform the key equity-related priorities and commitments in the Strategy, and we are encouraged by the City's initial steps to create opportunities for residents and community organizations to shape community-focused action areas. It will be valuable for the City to establish an equity-focused working group or advisory committee to guide the further development and implementation of the Strategy. As such, we view this review as the beginning of what we hope will be a longer and deeper process by the City to integrate local equity considerations into the implementation of the Climate Strategy, and future updates.

Overall progress of integrating equity into the Strategy

Overall, we've observed that the City of Calgary has come a long way in integrating climate equity considerations into its planning work since TEA conducted the preliminary equity review in 2021. We commend the City for recognizing that there were significant equity gaps in the last iteration of its Strategy, and for seeking to identify and address areas where social inequity could inadvertently be exacerbated by climate policy decisions.

The City's Climate Strategy project team used the initial equity review to help guide its Climate Strategy update, and adopted many of the recommendations put forward for equity improvements through the process. The project team also directly participated in workshops with equity-deserving residents. City staff heard firsthand how climate policy and programs could better meet the needs of

those made vulnerable to climate impacts, and deepened their understanding from the valuable insights that people with lived experience offered about increasing sustainability and decreasing social inequity through climate action.

In addition to their openness to receiving input and recommendations, our experience is that City staff have been genuinely interested in substantial improvements to their approach, and have shown authentic desire to listen and learn from residents.

We applaud these vital first steps and also acknowledge that some of the recommendations will require leadership support and a longer timescale to meaningfully integrate than the scope of our engagement, and that some City processes to improve climate equity may be in early steps of implementation.

Cross-Cutting Equity Observations

Putting People at the Centre of the Strategy

The Adaptation Plan includes a ‘People’ theme. One of our key recommendations has been to expand ‘People’ as a central theme in the broader Climate Strategy, which overarches both adaptation and mitigation plans, as well as being articulated within each plan. In order for residents to see themselves included and reflected in the City’s climate actions, we encourage the City to continue to develop a stronger people-centred lens that can be integrated alongside, and anchor, initiatives focused on business, industry, technology, infrastructure, and City services. All actions must be designed with the ultimate outcome in mind of making life better for the current and future residents of Calgary.

Incorporating a stronger people-centred lens means considering the different needs and priorities of residents and how they will impact Calgary’s approach to addressing climate change. There are a range of identities, perspectives and lived experiences that are important to include in further developing and integrating equity analyses in action plans, which include: people with disabilities, racialized people, newcomers and refugees, LGBTQ2S, people with low and moderate incomes, tenants and under/ precariously housed people, and youth, seniors and women - especially those that hold intersecting identities. The timeframe of the public consultation period did not make it possible for the City to deeply engage with the connections between identity, systemic barriers and climate impacts. As such, we recommend that the City undertake further work with residents and community partners to integrate more perspectives and guide the development of implementation planning to strengthen the equity impacts of the Climate Strategy. This collaborative planning could focus on generating benefits through climate action for equity-deserving people, rather than just minimizing harms.

The City’s plans and consultations would also benefit from a greater recognition that residents have very different levels of access to resources and technologies to reduce GHG emissions, including energy efficiency upgrades and retrofits, electric vehicles, or safe cycling and walking infrastructure.

Furthermore, while industry and business may develop some of the technology solutions that help reduce GHGs, they clearly do not have a mandate to ensure those technologies would benefit all residents of the City, especially equity-deserving people and communities. The City should further examine its governance role in perpetuating or deconstructing structural societal inequities, and consider what tools and mechanisms it can use to ensure that low-carbon technologies and benefits will reach equity-deserving communities.

In addition, the City can improve and extend the impact of plans by deepening its understanding of how to leverage (non-monetary) community assets and resources

in specific action areas. More specific recommendations are integrated into our section-by-section review.

Public Transparency, Participation and Accessibility

An important element of addressing equity involves making the City's plans and processes transparent, understandable and accessible for public participation. The public needs clear information about why residents and organizations should participate in policy processes, and how they can make their voices heard. There is value in the City creating short-term engagement opportunities for residents from equity-deserving groups (e.g. workshops and focus groups), which can help to determine where more work is needed to bring new and diverse voices to the table. The consultation workshops the City conducted focused on renters with low-incomes is an example of this value.

Moving forward, it will be important for the City to establish longer-term, more in-depth opportunities for members of equity-deserving communities and organizations to shape how the Climate Strategy is developed and implemented over time. This engagement can take different forms such as advisory groups, committees and partnerships. As appropriate, the City should be prepared to offer financial compensation and other forms of support to reduce barriers and enable participation in City-convened bodies and forums.

Participants in advisory bodies should have meaningful roles in the design and execution of the Strategy and associated policy. Through our review of this Strategy, we have noted many references to such bodies. We recommend that the City provide more information to the public about who is (or will be) represented, how group members are selected and/or approved, and what accountability structures govern and guide how bodies operate, including scope, duration of their mandates, and compensation (if any). This recommendation would apply to any bodies that are mentioned throughout the Strategy.

The Strategy also refers to “extensive stakeholder engagement,” however there are few details on what this engagement will look like (or looked like). We recommend that the City provide more details on how this stakeholder engagement will happen, who will be involved, and how this will meaningfully influence the design of policies and programs.

When engagement processes conclude, it is important for the City to report back not only on the feedback it heard, but also on how the feedback informed or will inform the City's plans and policies moving forward. In our role supporting the City's climate equity workshops, we observed that processes and platforms for communicating to the public about the application of community feedback need further development. For the purposes of enabling continued public participation in the implementation of these climate plans and building trust and long-term relationships, especially with equity-deserving residents and communities,

it is important that the City make the results of its public engagement work as transparent and accessible as possible.

The Strategy document itself will also be an important entry point for many residents and organizations that want to get involved in climate action or learn more. As such, we encourage the City to develop a communications strategy that will make content more accessible to different audiences, such as an executive summary, other thematic summaries to help translate some of the more dense material into key points, and a separate public-facing “highlights” document geared for a general audience with accessible language and explanatory graphics. We strongly encourage the City to consider translating Strategy-related materials into different languages, and develop creative methods and tools with community partners to engage the public with this information.

The City’s Relationship with Indigenous Peoples

In our review of the Climate Strategy, we see many improvements from the *Climate Resilience Strategy* (2018) in terms of the City’s description of its responsibilities and commitments to Indigenous Peoples, its acknowledgement of the need to advance reconciliation actions, and its commitments to relationship-building and Ethical Space dialogue and upholding Indigenous rights.

The Strategy stresses the necessity of Indigenous approaches to climate action and biodiversity preservation, and includes a land acknowledgement at the outset of the report. While this is a positive step, the acknowledgement could go a step further by acknowledging the First Nations and Métis names for the area, which long predate the name ‘Calgary’ given by settlers.³ Additionally, the Introduction section, which should ideally encompass the Climate Strategy’s highest priorities, does not mention Indigenous Peoples or those commitments and we suggest incorporating this into future documents and plans.

We understand that the City has developed this Strategy in parallel with steps it is taking to implement the *Indigenous Policy Framework* (2017)⁴ and broader relationship-building conversations, which would not be directly reflected in this Strategy. However there are actions mentioned and described in this Strategy, and in the *Reconciliation and the Intersections of Indigenous Peoples and Climate Change Literature Review and Recommendations*³, that pertain to this work but are not explicitly described in the Mitigation and Adaptation Plans.

The Strategy states that “Supporting Indigenous knowledge-based adaptation is critical to reducing climate change risks and effective climate adaptation,” and “educating all Calgarians on the importance of place-based approaches to reconciliation and climate action is critical.” The Strategy also mentions alignment of climate action with the Truth and Reconciliation Commission’s Calls to Action that pertain to municipalities. We note that the City has significant work ahead to ensure that these critical activities are clearly mandated amongst the people and teams responsible at the City, and that ample City resources are allocated.

We also noted that the *White Goose Flying* report (2016)⁵, the *Indigenous Policy Framework* (2017)⁴ and the *Reconciliation and the Intersections of Indigenous Peoples and Climate Change Literature Review and Recommendations* (2022)³ describe colonial policy and the impacts of colonization as being necessary to discuss in the path towards reconciliation, and connected with the root causes of climate change. We urge the City to consider and discuss these important connections in its plans and reports going forward.

While the City of Calgary's responsibility to uphold its commitments to Indigenous Peoples is distinct from its objective to collaborate with and support equity-deserving groups through the Climate Strategy, we believe that follow through on these commitments to Indigenous Peoples will strengthen and deepen the City's overall approach to more holistically integrating equity into community climate action and resilience-building.

The City's Leadership and Governance Roles

This Strategy furthers the resilience actions committed in the *Climate Resilience Strategy* (2018), and the City's Climate Emergency Declaration (2021), incorporates more ambitious climate targets and goals, and represents a stronger commitment to climate action by the City. The Strategy emphasizes that climate change needs to be addressed systematically and community-wide, and that everyone has a role to play in climate action.

While it is important to describe the shared roles of City administration, elected officials, and community ('Roles' figure, p12), the City needs to further consider the leadership and governance actions that it alone has the ability and responsibility to undertake and implement.

We highlight two important governance areas below where the City must take the lead role; ensuring *equitable funding of climate action*, and the *creation of low-carbon jobs*.

Ensuring Equitable Funding of Climate Action

The Strategy describes the significant investments required to meet the City's climate goals and targets, while also acknowledging that the adverse impacts of climate change are felt disproportionately by equity-deserving people.

Throughout our equity review process, we have strongly encouraged the City to consider equitable distribution of both the costs and benefits of climate action.

In describing the City's role, the Strategy outlines some potential incentives and financing options, "The City can right-size taxes and fees to make them climate-equitable and provide funding (through mechanisms such as grants or loans) to help reduce the cost to stakeholders to reduce GHG emissions. These programs

can also include non-monetary process incentives, such as expedited permitting, to reduce red tape and the associated costs for low carbon projects.”

The Funding section also mentions a report being prepared that explores internal and external funding options. We commend the City for undertaking a study of funding options for climate action, and we urge the City as it finalizes that report to perform in-depth equity analysis when evaluating the funding options available.

We strongly encourage the City to engage deeply with equity-deserving communities in the evaluation of those potential funding mechanisms and implementation plans, in order to prevent funding policies from unintentionally exacerbating social inequity.

Creation of Low-Carbon Jobs

The Strategy acknowledges the massive job creation opportunities that the transition to a low-carbon city presents. The Introduction describes the potential for over 160,000 jobs to be created in Alberta in clean technology, and the Transition to a Low-Carbon Economy section describes an estimated additional 170,000 jobs in Calgary’s transition, as compared to a business-as-usual scenario.

The City describes its role in Education and Training; “Opportunities for training and upskilling will play a significant role in the transition of employment in Alberta. The City will aid in the transition of Calgary’s future workforce and businesses by supporting partners such as Calgary Economic Development, post-secondary institutions and training centres.”

While we agree that training and upskilling are absolutely vital activities to support in the transition, we also assert that the Strategy falls short of describing the City’s own opportunities and the direct role it can play in the creation of good, green jobs and workforce pathways for equity-deserving people.

Mitigation Plan

Calgary's Climate Mitigation Plan

The City has taken steps to acknowledge some of the important work ahead in incorporating equity into their Mitigation Plan. This will realistically mean engaging with equity-deserving groups on many elements of the plan to assess their impacts and benefits and to determine a path forward, and the Mitigation Plan commits to doing this work.

An equity lens has been applied in specific areas of the Mitigation Plan, most notably in the Energy Poverty section. However this lens has not been applied consistently throughout the broader plan. It is important to apply this lens to all planned actions, particularly those which would place significant cost and affordability burdens on residents.

There are opportunities inherent in many parts of the Mitigation Plan to not only decrease any potentially negative impacts on equity-deserving people, but also to build important community benefits beyond those which are strictly environmental. For example, community ownership of renewable energy generation could bring shared wealth in addition to health co-benefits, and a focus on more walkable, bikeable, transit-oriented communities could also improve people's lives in significant ways. There is room to explore these benefits more deeply and expand efforts to improve social equity alongside the City's goals to reduce carbon emissions.

Introduction

"Fair Share" Integration

TEA's suggestion to integrate an analysis of Calgary doing its "fair share" to reduce global emissions has been incorporated into the final mitigation section. From an equity perspective, Canadian cities are important contributors to achieving Canada's "fair share" of reductions to meet the Paris Agreement's objectives and reduce emissions more quickly than low-income nations. We are pleased to see that an explanation has been included which explains the equity dimensions of why Canadian cities need to reduce emissions more quickly than low-income nations. TEA recommended reviewing recent IPCC reports for updated global analysis, and Navius Research's recent modelling estimating Canada's fair share⁶, and using this information to map a pathway that is in line with up-to-date "fair share" models.

Calgary's targets have been brought into alignment with a suggested Canada-wide "fair share" goal of 60% reduction from 2005 levels by 2030 - a significant strengthening of ambition. However, the provided modelling of Calgary's net zero

pathway does not appear to achieve either the 2030 or 2050 target, so there is work to be done to fill this gap.

Distribution of Cost Burdens and Financial Benefits to Residents

The section on Integrating equity considerations says “The City will work to ensure climate action will benefit local communities and equity-deserving people and will not place a financial burden or penalize residents with low and moderate incomes or small businesses.”

We are pleased to see this acknowledgement included in the plan. We also note that the Energy Poverty section takes this input into account and is a significant equity addition to the plan.

This perspective would benefit from being applied throughout the plan and not limited to two sections only. Outside of the specific equity paragraph noted above, there are few suggested actions to implement this commitment through the rest of the section. For example, the discussion of the costs and benefits of a transition to a low carbon economy, and discussion of ‘market transformation,’ do not acknowledge how this transformation could widen inequality gaps.

We recommend that the City specifically examine how these investments can benefit certain neighbourhoods and demographics (e.g. local businesses owned by and serving equity-deserving groups or create workforce pathways). When there is mention of “growth and prosperity”, we encourage a deeper analysis of equitable development -- where is the growth happening? Prosperity for who? Who is positioned to take advantage of programs and services, and for whom are targeted initiatives and supports needed?

There is a large body of research indicating that higher-income residents who consume more resources tend to emit more GHG emissions, while often experiencing cost burdens that are proportionally much lower in relation to their incomes. We strongly encourage the City to undertake an assessment of cost burdens on residents with low incomes and other equity-deserving groups in comparison to residents with higher incomes.

Scope 3 Emissions

TEA had previously noted the value of tracking Scope 3 emissions, which have not been included in the final plan. This process is logistically complex, but important to strive for as this will raise awareness of externalized GHG emissions outside the city boundaries resulting from activities within the city. This is important from an equity perspective since historically, many pollutants, toxic materials, and industrial activities have been pushed outside city boundaries where they disproportionately impact Indigenous communities and other equity-deserving people.

Mitigation Themes and Program Pathways

Theme: Net Zero Homes and Buildings

TEA noted in previous feedback that the use of carbon offsets should be as limited as possible, and would be better held for harder-to-decarbonize sources of emissions than buildings (e.g. heavy industry). The plan still recommends “high-quality carbon offsets to counterbalance the annual carbon emissions from building materials and operations.”

The addition of a section addressing Energy Poverty is a positive step. This section commits to engagement and strategy development to alleviate energy poverty and integrate energy poverty considerations into implementation of the broader Strategy. Following through on this commitment will make the Strategy much more impactful and will help address the disproportionate burden that some actions may place on low-income residents. This section also incorporates TEA’s previous feedback by including a commitment to a retrofit incentive program for tenants and a retrofit incentive program for residents experiencing energy poverty. We suggest additionally making efforts to determine what portion of households experiencing energy poverty are renters and the associated need for solutions that are tenant-specific.

We also suggest applying the commitments in this section to other areas of the mitigation section, for example, by including an analysis of how labelling and benchmarking programs could impact the cost and stability of housing for tenants or low-income households, and integrating this analysis into the design of any proposed incentive programs.

As per TEA’s previous feedback, incentive programs should prioritize affordable and stable housing for residents with low- and moderate incomes, and put appropriate safeguards in place to ensure that upgrades improve living conditions and do not result in renovictions or rent increases that could lead to displacement.

Similarly, incentive programs for commercial spaces should consider the impacts on the leases and day-to-day operations of small and medium local businesses including those that serve specific cultural, ethnic and place-based communities. It is important that tenants (residents and businesses) and property owners (residential and commercial) who do not speak English as a first language have access to translated information and language-supporter services to participate in City energy performance programs and other climate-related initiatives.

Theme: Zero Carbon Energy Transition

We note that the commitment to support community and co-operative ownership of renewable energy generation is very positive from an equity perspective. This form of ownership could provide greater benefits and opportunities for local communities and greater buy-in from participating communities. We suggest exploring alternative ownership models in more depth with comprehensive input from equity-deserving communities.

There is currently no overt connection to how renewable energy generation systems could improve access to affordable energy. We strongly suggest exploring the possibility for these models to help meet or even accelerate the City's energy poverty reduction goals.

Theme: Zero Carbon Neighbourhoods

We are pleased to see the shift from framing zero/low carbon transportation options like transit, cycling and walking as “alternatives” to cars. Instead, they are best framed as ideal first choices for transportation.

There have been some efforts made in this section to acknowledge the need for more equitable distribution of incentives across income. For example, this section starts with the following observation: “Strategies that focus on incentivizing private electric vehicles are likely to disproportionately benefit middle-and-high-income individuals, so it is critical that the program design and implementation of this Program Pathway keeps equity considerations front of mind.”

This commitment needs to be further incorporated into existing plans for design and implementation. For example, the plan should clarify how EVs will be accessible to residents with low and moderate incomes who may not be able to afford the purchase of a new vehicle (since EV incentives often only apply to new vehicles), and how the City will work to incentivize options like transit, cycling, walking, and other non-vehicle options to ensure that public funds are not disproportionately channeled towards vehicle owners while excluding transit riders, cyclists, and pedestrians. Although the plan commits to improving transit and cycling networks, this does not necessarily enhance affordability and can in fact increase costs for users.

The plan makes a strong case for a modal shift from cars to other low carbon transportation options. From an equity perspective, it is important to understand how residents from different communities and neighbourhoods experience different transportation modes, and opportunities for and barriers to modal shift. For example, communities may have inequitable access to continuous bike lanes or the opportunity to own a bicycle and become comfortable with cycling. Suburban residents often experience more hesitation to cycle or walk due to larger streets with less cycling or pedestrian infrastructure and higher traffic speeds.

Road pricing, unless carefully designed, will disproportionately impact drivers with low incomes who pay a higher percentage of their income towards transportation. We suggest more deeply exploring how to incorporate equity into any road pricing plans, and making commitments to mitigate disproportionate impacts on drivers with low incomes (e.g. through selective rebates, sliding scale, other programs).

Theme: Consumption and Waste

It is extremely positive to see waste considerations move beyond methane generated in landfills to include the emissions embedded in the products we use and dispose of. Life cycle analysis can be effective in understanding the different carbon footprints of low- and high-income households.

We support the proactive approach of reducing emissions by reducing the amount of waste that is created in the first place. This is important from an equity perspective as the waste we generate can have harmful and disproportionate impacts on low-income and racialized communities, or smaller communities “receiving” waste from large urban centres, which are situated in closer proximity to toxic landfills.

We note that this section now includes mention of construction and demolition waste as a significant source of embodied emissions, which is a positive addition. City policies are likely the only way to drive diversion for this type of waste, and city infrastructure projects could be a good opportunity to lead by example. Therefore, we suggest committing to specific policies and programs to address construction and demolition waste.

This section could benefit from more connections to the circular economy as it relates to local job creation. For example, there is much greater potential for job creation in the 3R's (reduce reuse recycle) than in disposal (landfill or incineration). Key actions can also go beyond just promoting reduction, and work to support more ‘circular’ programs like repair cafes, sharing libraries, and support for community programs (e.g. sewing repair hubs, bike repair) which can also help reduce household costs.

In the City's actions to “enable and promote food waste reduction,” we encourage the City to explore opportunities to increase food security for residents with low incomes, for example, through food sharing programs. In the City's efforts to increase waste diversion from landfills by reducing food waste, what opportunities are there to enhance access to healthy food for individuals and communities with inequitable access to healthy food? Prioritizing food waste reduction strategies which enhance food security and access to healthy food for residents with low incomes could help improve equity and reduce waste.

There is also a potential tie-in to the Adaptation Plan in the recommendation to improve access to local food. Improving local food access and food security through garden space and skills training supports communities in times of climate stress or economic instability.

Theme: Carbon Removal

The section title “Carbon removal” does not capture the critical additional benefits provided by natural infrastructure. The co-benefits of natural infrastructure to sequester carbon are far greater than technology-led efforts to remove carbon from the atmosphere. Natural or “green” infrastructure can sequester carbon while also improving air quality, mental health, and providing critical shade and cooling capacity and stormwater absorption.

It is important to consider the equity dimensions involved in work to restore and create new green infrastructure. How will this impact access to these green spaces for people who don’t have backyards, cars, or private green spaces? How can the creation of green spaces and natural infrastructure help bring more equitable access to green spaces across the City, and across income groups? This is an important area of intersection with the Adaptation Plan, especially as it relates to the protective impacts of green infrastructure (e.g. flood management; cool spaces during heat waves).

Equity-deserving communities are much more likely to benefit from natural infrastructure than technology-led carbon removal. For example, CCS technologies will not remove harmful air pollutants from industrial areas which tend to be disproportionately located closer to equity-deserving communities.

We are pleased to see the addition of the ‘engagements and partnerships’ section which acknowledges the need to deeply engage with Indigenous and equity-deserving groups in this work. However the timeline indicates that this work has not yet started while other identified actions have launched in some form. Relationship-building takes time - engaging and establishing these relationships should be considered a priority moving forward.

Adaptation Plan

Calgary's Climate Adaptation Plan

The City has made significant improvements in comparison to the 2018 Adaptation Plan in its efforts to integrate a stronger equity focus into the updated 2022 Plan, especially in the “People” theme. We encourage the City to continue to examine how it can proactively integrate a “people first” approach to all adaptation theme areas, and deepen its learning, analysis and actions to support communities that are most impacted by climate change.

It will be important for the City to adopt multi-benefit and asset-based approaches to implementing the Plan's actions, which must go beyond reducing risks and harms, in order to build resilient communities. This will require deep collaboration with local residents, organizations and businesses to draw on lived experiences and knowledge in the community to develop locally-relevant systems and solutions. In implementing adaptation actions, the City can play a lead role in creating opportunities for equity-deserving people and communities to participate in the transition to a low carbon economy.

There is a new section on “Supporting Indigenous climate adaptation” that describes the City's commitment to “engaging with, learning from, and supporting the efforts of Indigenous communities in adapting to climate change” and the need to “elevate Indigenous knowledge systems.” We urge the City to work with Indigenous rights holders, including Indigenous elders, knowledge keepers, organizations, and other community members, to uphold and holistically integrate this commitment throughout all the core elements of this Plan, including focus areas that connect with land and water.

Understanding the Impacts of Climate Change

The City has a thorough analysis of the climate hazards that are of greatest concern for Calgary. We recommend that the City further deepen its knowledge of how the risks and impacts of climate hazards are experienced differently and disproportionately by equity-deserving residents and communities. This knowledge base will be important for the City to develop a suite of programs that meaningfully address how residents experience disproportionate risks and impacts due to intersectional factors and systemic barriers.

Theme: People

The City has made significant progress in strengthening people-centred concepts in this theme, and developing actions that will enable the City to more deeply engage

with residents and communities. We strongly encourage the City to work with local partners to further develop frameworks, approaches, and action plans that go beyond “reducing vulnerability” and proactively build community climate resilience.

Focus Area A: Climate-Resilient Communities

Climate-resilient people and communities:

The programs and initiatives described in this section represent a key step forward by the City to build community climate resilience. The establishment of the community climate vulnerability and resilience working group is an important opportunity to integrate the experiences of equity-deserving groups into adaptation planning processes. The City can implement these actions in an interrelated manner so that they have a positive cascade effect. For example, if the City facilitates meaningful participation in the working group by equity-deserving community members, this can assist with identifying community collaborators to help with developing and implementing the climate ambassadors program, equity toolkit and mapping community spaces. When partnering with community collaborators, it will be important for the City to clarify its role and expectations of partners as well as the support and resources it plans to provide including compensation for community-centred work.

The community climate risk profiles will generate important data for guiding planning and community-level investments. We encourage the City to consider how community profiles can include community assets and resources like gardens or support networks, and how these can be integrated into public information and communications. It is important that communities in neighbourhoods experiencing high climate-related risk are not further stigmatized by being publicly perceived as undesirable places to live, which in turn can lead to further under-servicing and under-resourcing. Rather, holistic and transparent community data sets can provide an important foundation for new opportunities, investments and hopeful collective action. Furthermore, this is an opportunity for the City to learn through community engagement processes about the community assets and resources that can strengthen resilience.

Food Resilience:

We are encouraged to see the inclusion of food resilience in the Plan. In addition to the future-facing preparedness focus, it is important this work is grounded in the present situation, since the residents who experience food insecurity are likely to experience even greater risks and impacts due to climate shocks. We encourage the City to further outline how this program will contribute to supporting residents that are currently experiencing food insecurity and chronic challenges with inequitable access to healthy, nutritious and culturally-appropriate foods. The lack of consistent access to food growing space was raised by participants in the City’s consultation workshops focused on renters with low incomes.

The program actions appear to be exclusively focused on the food systems level and potential disruptions to the system. They do not address the importance of the ongoing work of grassroots community organizations, networks and volunteers in local food initiatives, and the important role they play in providing emergency food support during times of crisis. This should be considered to be a significant resource for food systems, since most often, frontline community workers and volunteers are the first point of contact and support for residents, and the champions of food initiatives that increase access and build resilience over time. We recommend that the City strengthen relationships with and support community organizations to play a key role in building local food resilience and emergency preparedness initiatives with equity-deserving people and communities.

Focus Area B: Managing Extreme Weather and Climate-Related Events

While the emergency preparedness actions in this area are an important addition to the Plan, they are not linked to people- or community-centred initiatives, and do not address the disproportionate risks and impacts of climate hazards on residents and communities that are made vulnerable. In further developing its emergency management strategies, it is important that the City integrate an equity analysis and recognize the important role that community groups and organizations play in frontline emergency preparedness and response. In addition, it is critical that the City develop plans that address the disproportionate impacts that disruptions to City operations and service continuity will have on equity-deserving residents and communities.

Theme: Built Infrastructure

We recognize the progress that the City has made in integrating new learning from its public consultation process into this Theme, particularly in the area of housing and buildings. We strongly encourage the City to continue to work on integrating an equity analysis into the built infrastructure program actions described in the plan, and make deeper connections to how public assets and infrastructure are distributed and accessed by residents in different parts of Calgary. This will help with planning and prioritization of investments for developing more climate-resilient infrastructure and preventing and mitigating the impacts of damage and disruptions, especially for residents who are made most vulnerable. We also encourage the City to more fully explore how infrastructure upgrades and development can generate multiple benefits for equity-deserving people and communities, if intentional strategies and safeguards are developed with community stakeholders to maximize benefits (e.g. local jobs; neighbourhood improvements) and prevent harms (e.g. increased rents; displacement).

Focus Area C: Climate-Resilient City-Owned Infrastructure

The City has a critical role to play in ensuring that public infrastructure is climate-resilient, and can demonstrate leadership in how it integrates equity into planning, upgrading and building City-owned infrastructure.

The plan outlines the need for the City to conduct climate risk and cost analyses and assessments for several of the actions relating to the City's public infrastructure portfolio. It will be important for the City to integrate an equity analysis into these processes so that impacts on resident safety and wellbeing are fully understood as part of cost-benefit analyses and inform decision-making on prioritizing investments. Similarly, if the City is considering divesting from an asset, the City must ensure the needs of any residents who had previously relied on that asset will continue to have their needs met.

The plan describes how the City will “build capacity through education and training opportunities both internally and externally” focused on professionals involved in delivery of built infrastructure projects. In addition, the City commits to “implementing contractual agreements and supporting the latest best practices for climate resilience in Civic partnership facilities.” Both of these programmatic actions can be designed to create opportunities for equity-deserving people in the transition to a low-carbon city. Well planned capacity building processes will be key to preparing the workforce that will undertake new construction and retrofit projects and can be part of broader efforts to build green jobs pathways for equity-deserving people. The City can also work with Civic Partners to integrate equity-related criteria into its procurement policies and tender processes to ensure contractual agreements for infrastructure projects advance equity and inclusion in green sector work.

Focus Area D: Climate-Resilient Homes and Buildings (privately-owned)

The inclusion of a focus area that outlines a more fulsome set of programs to make Calgary's homes and buildings more climate-resilient, is a significant step forward for the City in comparison to the previous “design standards and practices” program. It is not yet completely clear the extent to which the City will prioritize and apply equity-related considerations in establishing new incentive programs for both new and existing buildings.

New Buildings:

We urge the City to use its powers to ensure that new construction includes high-quality and climate-resilient homes (or housing) that are deeply affordable, since homeless and under-housed people are among the groups made most vulnerable to climate impacts and extreme weather.⁷ The City should determine how to design incentive programs that result in new residential developments being built to the

highest standard, and ensure they contribute to growing Calgary's affordable and deeply affordable housing stock, with prioritization of the latter.

Retrofits:

We urge the City to integrate a strong equity analysis in developing a climate-resilient home retrofit and low-interest financing programs. Efforts should be made to ensure that the programs being developed cover residents' range of housing situations and needs.

The relationship between income level and type of home or housing may not be clearly delineated, and programs should be designed to ensure all situations are considered, since all homeowners will not have the same access to resources. For example, there may be low-income homeowners (such as seniors on a fixed income) who may have a greater need for retrofit financing support than middle or high-income homeowners. The City should design its low-interest finance program to be accessible to and supportive of low-income homeowners. We acknowledge the City's commitment to collaborate with funders and community groups to "improve funding for climate-resilient housing for low-income earners" and encourage the City to explore grant and subsidy options apart from or alongside financing.

In addition, the City should prioritize financing and support for residential buildings that provide affordable and stable housing for low- and moderate-income residents, with built-in safeguards in place to ensure that upgrades do not result in renovictions or rent increases for tenants. We recommend distinct programs for multi-residential and single-unit housing, and encourage the City to consult deeply with housing advocates and tenants on program design and implementation.

In terms of adaptation and supporting residents through extreme weather events, the City should also consider the readiness of its community infrastructure such as community centres, daycares, libraries, and other buildings in which residents may take refuge from extreme weather such as heat waves, smoke, hail, heavy rainfall or flooding. The City should ensure that its community buildings are well-maintained, particularly the cooling, heating, air filtration, and backup power systems, and should work with the City's emergency management teams to anticipate other potential resource needs.

The plan does not specifically describe a program for commercial space occupied by small and medium local businesses, and the City should consider how to design a program that meets local business needs and does not negatively impact leases and day-to-day operations. Program design should consider how to connect with and support local businesses including those that play a key role in serving specific cultural, ethnic and place-based communities.

Access to Housing:

The specific programmatic actions dedicated to improving "access to climate-resilient housing for communities or groups where there are significant barriers"

reflects important progress in the City's efforts to address equity in climate actions.

We encourage the City to develop a specific program for supporting energy-efficiency and climate-resilient measures in social housing, rather than a series of demonstration projects. The return on investment for buildings, including multi-residential housing, is well documented and relatively easy to quantify. It is unclear how such a program would "compromise [the City's] ability to meet the demand for housing in Calgary" if planned over a time horizon that enables the realization of savings. In the case where the City's Housing Corporation owns the buildings, most of the savings would benefit the Housing Corporation, allowing for more reinvestment opportunities. If the City intends to support other social housing providers, the program would need to be designed in consultation with providers to be similarly financially viable. When calculating the return on investment, the City should factor in the cost difference of starting earlier – and protecting the City's housing assets and boosting resilience sooner for residents made most vulnerable – versus starting later.

Focus Area E: Climate-Resilient Utilities Services

It is important that the City is expanding its work with third-party utilities to enhance climate resilience to prevent and mitigate disruption to the critical supply of power and services. To improve utility service providers' understanding of climate impacts, support implementation of resilience measures, and assess impacts on residents, the City should include an equity analysis as a core facet of this work.

As indicated, disruptions to utility services can have serious impacts, including and up to, the loss of life. For example, a prolonged power outage can mean the loss of fans or air conditioning during a heat wave, which would disproportionately affect a high-rise resident who uses a wheelchair or mobility device and may be unable to get to a cooling station due the elevator not working.

Effective plans to strengthen grid resilience, optimize ancillary measures, and communicate with and reach residents and local businesses during disruptions, should be informed by a deep understanding of how residents and businesses are differently situated and impacted. For example, service providers may be faced with a choice to deploy technicians to a major business district or a residential neighbourhood outside the downtown core after a storm. Plans that require triaging the restoration power and related services to different neighbourhoods can have a profound impact on residents' lives depending on their access to emergency response services, back-up power sources, critical information and proximity to major medical facilities.

We strongly encourage the City to move forward with two actions from the previous 2018 plan that are not outlined in the current plan:

- Assess condition of power supplies in critical City facilities with priority given to facilities serving vulnerable populations
- Evaluate mobile power plants for Calgary Housing Corporation properties with ENMAX to protect tenants and buildings against freezing

Theme: Natural Infrastructure

We recognize the work that has been done in the plan to expand on natural infrastructure initiatives and frame this area as a multi-benefit solution. We are encouraged to see more of a resident centred approach in some program areas and new initiatives focused on solutions for a highly urbanized environment. How Calgary develops and integrates natural infrastructure in and around the built form is increasingly important to the wellbeing of residents as climate impacts, such as the urban heat island effect, must be urgently addressed.

We strongly urge the City to reflect more deeply on how this theme area can advance and uphold the City's commitment to reconciliation and duty to uphold Indigenous rights and treaties in a more meaningful way. While the way forward must be determined with Indigenous right holders, the City should proactively ask how it can directly support and resource Indigenous-led initiatives such as land stewardship and place keeping. As the City encourages more Calgary residents to appreciate and value natural areas, it should seek guidance from Indigenous elders, knowledge keepers and community organizations on how Indigenous worldviews and Ways of Knowing can guide residents to be in better relationship with the land.

Focus Area F: Integrated Natural Infrastructure Value

It is encouraging to see an area of work dedicated to integrating and communicating the benefits of Calgary's natural infrastructure. Public communications and outreach can play a valuable role in encouraging residents to interact with natural infrastructure such as park space and natural areas, and appreciate their value. We encourage the City to collect data about who is accessing and using Calgary's natural infrastructure, and how City communications and outreach can contribute to residents from different neighbourhoods and communities benefiting from this important resource. Local place-making and stewardship initiatives can help residents to feel welcome and increase their connection to natural infrastructure.

Focus Area G: Investing in Natural Infrastructure

We applaud the City for including a new program action to engage with communities with inequitable access more deeply to "improve equitable access to natural infrastructure." This is a critical step towards understanding community priorities, needs and current usage when planning to develop natural infrastructure and related amenities. It would be beneficial to extend this program action to the carbon removal section of the Mitigation Plan as well.

It will be valuable for the City to continue to deepen work to advance the benefits of natural infrastructure to residents, which directly relate to equity, such as providing residents respite from extreme weather (e.g. shade and cooling during a heat wave) especially for residents who don't have air conditioning or private green space. A core element of this work will be building an understanding of residents' distinct

experiences, which are impacted by many factors including the type of housing and neighbourhood they live in and the proximity of natural infrastructure. We encourage the City to specifically explore how its initiatives can be implemented in high-rise communities, and to ensure programmatic priorities demonstrate a strong linkage to the natural asset information in the community climate risk index (CCRI).

Theme: Water

Integrated water management will play an increasingly important role in ensuring the health, safety and wellbeing of Calgary residents as the city is faced with growing risks around river flood and storm management, and maintaining a safe water supply. We encourage the City to continue to deepen its analysis of how vulnerability to these risks is experienced by residents in different parts of Calgary with differing levels of resources to prepare and respond to flood and water supply-related impacts.

The City can further articulate its role in working with community partners to support residents that may be placed at risk, such as renters in basement apartments without insurance. The City will also need to develop communication strategies to quickly share critical information about water quality and supply issues through local networks and communication channels, as well as be prepared to leverage local structures to deliver emergency supplies (e.g. bottled water) to residents who may experience access and cost barriers.

Focus Area I: Stormwater Management

The new and expanded program actions in this area present important opportunities to engage residents, community organizations and local businesses in developing plans to reduce risks and design solutions that improve neighbourhood stormwater resilience. Local knowledge, experiences, and participation will be important elements in successfully implementing measures that include outreach, education, infrastructure retrofits, and repurposing space. We recommend that the City take a multi-benefits approach to Green Stormwater Infrastructure (GSI) planning, and advance objectives in other focus areas such as improving equitable access to natural infrastructure. We also encourage the City to apply an equity analysis when assessing which properties, both residential and commercial, contribute the most and the least to stormwater runoff. This can help to inform City actions aimed at motivating property owners to adopt measures to reduce runoff, and ensure properties that contribute the least do not pay more than their fair share of managing stormwater costs.

Key Recommendations

While we have provided detailed observations and recommendations throughout this report, we would like to highlight a few key recommendations that we believe are critical for the City to consider as it moves forward with implementing the updated Climate Strategy.

- Ensure that the Climate Strategy advances the City's commitments to Indigenous Peoples. Collaborate with Indigenous rights holders in decision-making processes to integrate these commitments meaningfully and tangibly into the Strategy as a whole, including core areas of the Mitigation and Adaptation Plans, and proactively seek opportunities to support and resource Indigenous-led initiatives
- Design and implement public/community engagement processes that will deepen the City's understanding of how equity-deserving people and specific place- and identity-based communities are disproportionately experiencing (or will experience) the impacts of climate change in Calgary
- Work with community partners to develop more concrete strategies for how mitigation and adaptation actions will generate co-benefits and opportunities for equity-deserving communities, especially within the broader frame of the transition to a low-carbon economy
- Integrate an assets-based approach to community resilience-building that considers how community knowledge, networks, spaces, resources (etc) can be leveraged to extend the reach of and effectiveness of climate programs and actions, and help the City move beyond vulnerability-reduction approaches to more holistic and empowering ways of working with communities
- Conduct a more in-depth analysis of cost implications of climate action and adaptation for residents, in particular for residents with low and moderate incomes, and how these costs will be distributed across the city (not just the city as a whole). Apply this analysis to planning areas of work such as incentive programs, infrastructure development, job creation, etc
- Build stronger integration across mitigation and adaptation programs areas in order to optimize multi-benefits for communities and strengthen coordination among City teams in areas such as buildings/housing, natural infrastructure, etc
- Develop advisory bodies that enable meaningful participation by members of equity-deserving communities in shaping the Climate Strategy and the implementation of both mitigation and adaptation plans. Draw on the experiences of other jurisdictions, and seek advice from community partners,

on effective models and good practices

- Recognize that integrating meaningful equity analyses into climate action, and strengthening equity-related commitments, is a long-term process that involves extensive listening and learning. Develop plans to build the capacity of City staff, including City leadership, to work effectively with residents and community organizations to advance equity in the Climate Strategy

Conclusion

It has been a privilege to work with the City of Calgary on its initial steps to integrate equity into its Climate Strategy and Mitigation and Adaptation Plans. We deeply appreciate the contributions from the Calgary residents and organizations that participated in the consultation process and the work of City staff. We look forward to seeing how the City of Calgary will bring the updated Climate Strategy to life, in collaboration with residents, local businesses and community partners, to achieve the vision of Calgary as a resilient city.



Endnotes

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