



CLIMATE STRATEGY UPDATE

WHAT WE HEARD REPORT

MARCH 2022

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“NOTHING ABOUT ME,
WITHOUT ME.”

Equity Deserving Workshop
Participant

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What We Heard - Executive Summary

A key objective of the Climate Strategy and Action Plan Update was to ensure that equity is considered and embedded into the plan. The engagement process focused on strategic tactics and communication to ensure that we successfully heard from equity deserving Calgarians, who are typically harder to reach in City engagement projects. As a result, a diversity of voices, perspectives and ideas were collected.

Impact from severe weather events and the capacity to recover from them are quite different for low income, and equity deserving Calgarians, compared to the general public. Indigenous individuals also reported unique impacts. Barriers to action that these individuals experience are also unique. However, cost is the most significant barrier for all Calgarians who participated in the engagement, regardless of income. The nuances of impact and barriers should be carefully considered when designing resources and programming to ensure that City climate action does not leave anyone behind.

For many Calgarians who responded, the perception of severe weather risk and how they reported personal impact of events is not aligned. For example, flooding was rated highly for risk on the online engagement page, but most comments regarding personal impact were about extreme heat and smoke from wildfires. Wildfires were rated relatively low for perceived risk.

Similarly, the general public believe their ability to recover is relatively high. The accuracy of this perception is likely limited however, as without previous experience of each specific severe event, one does not know exactly what will be involved, how they will respond or what they will need. This highlights a need for education about impacts of specific climate related events to Calgarians and accessible tools to help Calgarians proactively prepare and recover. This is especially important for those who have additional considerations, such as being a newcomer to Calgary and its climate, and language barriers.

Regardless of income or background, respondents agree on what action areas they would like The City to prioritize, for both adaptation and mitigation. For adaptation, the two action areas prioritized highest were:

- Build, restore and protect natural infrastructure
- Manage water resources

The mitigation action areas prioritized highest are:

- Improve the greenhouse gas and energy performance of new and existing buildings
- Increase the number of renewable energy projects in Calgary (solar or wind energy projects)
- Expand low-carbon transportation modes (like transit, walking and wheeling)

However, when discussing these action areas, we heard Calgarians do not view them as isolated areas that require unique action plans. Instead, the realities of their day to day lives, weave these areas together and highlight the interconnected and holistic nature of inequity and climate action. The reality of people's lives take place in the connective tissue between action areas and these realities need to be fully understood to ensure that climate action and programs consider these interconnections. This will have implications for alignment across City of Calgary departments and what actions are defined as climate action. As one workshop participant said about inequity and ability to access public transportation, "Snow plowing may not seem like a climate equity action, but it is."



The most obvious areas of inequity that online and workshop comments uncovered were:

- **Basic needs-** Getting by day by day supersedes ability to act, and meeting basic needs is the foundation of equity.
- **Time freedom-** This refers to an individual's free time to participate in climate action or increase their quality of life. Increased travel time, the need to work multiple jobs to afford rent, and being a single parent all result in reduced time freedom.
- **Transportation access and disruption-** Equity deserving individuals report increased issues related to transportation and disruption during severe weather events. This impacts their ability to get to work and school and presents a safety issue when faced with possible evacuation.
- **Home upgrade agency and benefits-** Many equity deserving individuals rent their home and therefore are not able to make decisions about their home or even have a choice about the building standard in which they can afford. Benefits of upgrades are not always transferred to the renter and in some cases the cost of rent is increased to pay for the upgrades.
- **Program eligibility-** Many renters and condominium owners do not have programs available that are designed to benefit them specifically when it comes to emission reducing home upgrades.
- **Affordability-** Many climate actions are just not affordable for many Calgarians, regardless of income level. Some actions, like taking public transportation, can also add additional burdens.

Climate change can feel like a polarizing topic for some, however the majority of Calgarians we heard from are concerned about climate change and are supportive of action to address it. In this engagement, some Calgarians shared a lack of understanding or empathy for how climate related weather events and action could exacerbate inequity. Climate action taken by The City should be framed in a way that builds empathy and communicates how achieving equity for some leads to collective benefits for all. There are some common values and needs that few dispute, including increased building standards, having a safe place to live, food security, affordable and accessible transportation, and personal health and wellbeing. These needs and values are universal. Framing climate action around shared common values and needs may be a positive way to manage lack of support for this work.

While this engagement provides a high-level view of equity considerations, building measures in the Climate Strategy and Action Plans that are equitable will require a deeper understanding of how each equity deserving group of Calgarians experience different weather events, barriers they face, the risks that are unique to them and their specific needs. These lived experiences and personal impacts should be further explored to design specific programs in which all Calgarians can participate.

In the design and implementation of climate action areas, target program participants need to be at the table to speak on behalf of their own needs and how programs could be designed to maximize benefits and minimize unintended harm. Therefore, more thorough engagement is recommended over a longer period to support relationship building and safe sharing spaces for equity deserving groups.

For a detailed summary of the input that was provided, please see the [Summary of Input](#) section. For a verbatim listing of all the input that was provided, please see the separate [Verbatim Responses](#) document.



Climate Change Backgrounder

What climate change means for Calgary

Climate change hazards have worrying implications for cities. Climate modelling indicates Calgary is experiencing and will continue to experience climatic changes and an increased frequency and severity of extreme weather events such as extreme heat, heavy rainfall, drought, severe storms, river flooding, increasing average temperature as well as wildfire. These hazards threaten the health and wellness of Calgarians, our infrastructure and natural ecosystems, and our economic prosperity. That's why we're preparing to reduce our vulnerabilities to these hazards.

The benefits of climate action

The costs of climate impacts will continue to grow across Canada. There's a strong business case showing the benefits of proactive investment to prepare for climate change outweigh the costs. For example, national research tells us that for every dollar we invest to reduce our vulnerability to climate hazards such as flooding, we can expect to save approximately \$6 in future costs to recover from such events. As we continue to see more frequent and severe extreme weather events, the case for accelerated action only becomes stronger. Additionally, actions that reduce energy use and greenhouse gas emissions offer opportunities for cost savings, increased comfort and livability, and enable the transition to a low carbon economy.

Climate action and climate risk disclosure reporting demonstrates the ways in which The City is preparing to support economic growth, attract new business and investors, reduce long-term costs and damages due to climate change, and build Calgary's reputation as a low-carbon and climate-resilient city.

How The City of Calgary is responding to climate change

Cities have a critical role to play in reducing greenhouse gas emissions to help limit global climate change, as well as adapting to the risks posed by a changing climate. The City of Calgary recognizes climate change poses risks to our city both now and in the future and is committed to taking action to address climate change. You can learn about the progress we've made in our [2020 Annual Report](#).

Consistent polling data tells us the majority (80 per cent) of Calgarians are concerned about climate change and most (68 per cent) agree 'we need to act now to address climate change.' In November 2021, Calgary City Council voted to [declare a Climate Emergency](#). This means Calgary has joined a global community taking action on climate change. City Council has also provided direction to accelerate the pace and scale of our work to respond to the climate emergency.

Project Overview

The [Climate Strategy and Action Plans](#), initially approved by Calgary City Council on June 25, 2018, are being updated in 2022 to reflect the latest climate science, international and national obligations, and feedback received from Calgarians. The updated strategy will identify critical actions, tools and programs needed in the next five years to:

- reduce greenhouse gas emissions to net zero by 2050;
- reduce the impacts of climate change on the health and wellness of Calgarians;
- reduce the impacts of climate change on the economy, social systems, infrastructure and natural ecosystems;
- integrate climate equity; and
- support a low carbon economy.

The update to the Climate Strategy has been a phased process. Since the summer of 2021, the Climate project team has been working closely with various technical groups to assess and evaluate components for the Strategy update. This assessment included looking at greenhouse gas (GHG) emission reduction potential of various actions, updated climate science and high-level climate equity considerations. In addition, it also included an assessment of the climate change-related socio-economic and natural infrastructure impacts, and the best practices used to address those impacts.

Stakeholder input is one of many sources of information for this update. This input, coupled with updated climate science and climate best practices, will help inform the updates required to achieve the overall objectives of this project.



Figure 1- Inputs into Climate Strategy and Action Plans Update



Climate Equity

The City of Calgary uses the definition of 'climate equity' that comes from the District of Saanich, BC which states:

"Climate equity means working towards the just distribution of the benefits of climate actions (mitigation and adaptation) and alleviating unequal burdens created or worsened by climate change."

The Urban Sustainability Directors Network (USDN) defines the four key aspects of equity, which applies to all equity, not just climate equity:

Procedural (Inclusion) Inclusive, accessible, authentic engagement and representation in the process to develop or implement programs or policies.

Distributional (Access) Programs and policies result in fair distributions of benefits and burdens across all segments of a community, prioritizing those with highest need.

Structural Decision-makers institutionalize accountability; decisions are made with a recognition of the historical, cultural, and institutional dynamics and structures that have routinely advantaged privileged groups in society and resulted in chronic, cumulative disadvantage for other groups.

Transgenerational Decisions consider generational impacts and do not result in unfair burdens on future generations.

Equity Building Initiatives

In 2021, The City of Calgary participated in 'Transforming Cities from Within', a joint initiative of the University of British Columbia (UBC) and the Canadian Urban Sustainability Practitioners Network (CUSP), that brought together teams from municipalities across Canada to work in a community of practice on challenges at the intersection of climate, equity, and decolonization. Through a process of expert-led capacity building and peer-to-peer support, The City team sought to empower historically marginalized groups and individuals (with a particular focus on low-income renters) and center them in the engagement process for the Climate Strategy update.

To complement this pilot, The City also hired the Toronto Environmental Alliance (TEA) as a consultant. TEA was selected for their expertise on the intersection of climate and equity, and experience as a consultant for the City of Vancouver on integrating equity into their climate program. TEA conducted an equity-lens assessment of the 2018 Climate Resilience Strategy and draft Climate Strategy update and provided expertise to support the engagement process with equity-deserving Calgarians.

Adaptation and Mitigation

The Climate Strategy and Action Plans are divided into two areas: mitigation and adaptation. While these terms were not explicitly used in how information was framed for the public and stakeholders in the engagement process, this What We Heard report presents information with these areas in mind to support the project team.

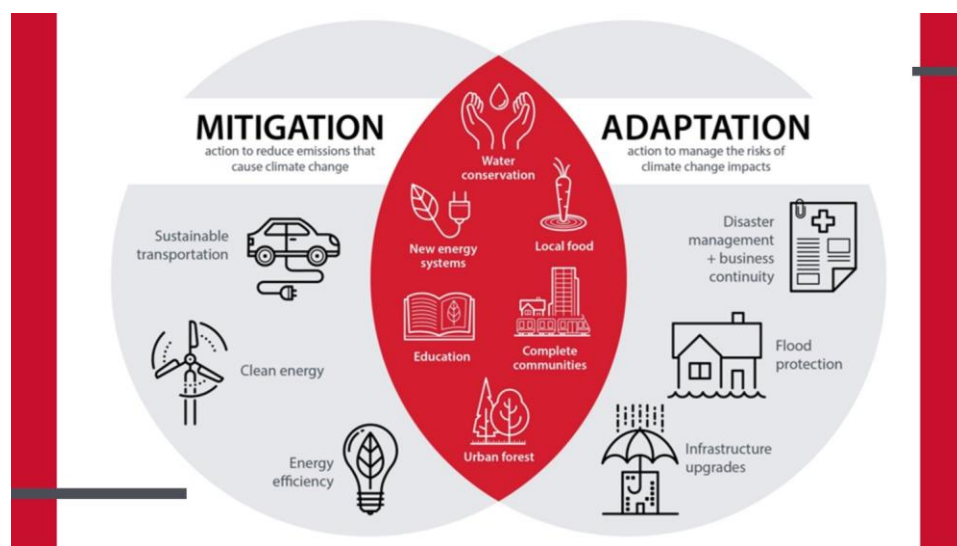


Figure 2- Mitigation and Adaptation

Figure 2 illustrates the difference and intersection of mitigation and adaptation. Simply put, addressing the cause of climate change, is termed mitigation, which requires addressing emissions of greenhouse gases. While addressing the symptoms of climate change, which is climate related risk, is called adaptation. Both adaptation and mitigation are key to a sustainable future and both types of actions must be implemented by The City.

Engagement Overview

At The City of Calgary, decisions are made daily that impact more than one million people. Input from Calgarian and other stakeholders, helps The City better understand the perspectives, opinions, and concerns of people affected by City decisions. Public input is collected, where appropriate, and considered along with other factors (such as cost, environmental impact, technical limitations, and long-range plans/goals) before decisions are made.

"Engagement" at The City of Calgary is defined as: *"Purposeful dialogue between The City and citizens and stakeholders to gather information to influence decision making."*



Engagement is:

- **Citizen-centric** focusing on hearing the needs and voices of both directly impacted and indirectly impacted citizens.
- **Accountable** upholding the commitments that The City makes to its citizens and stakeholders by demonstrating that the results and outcomes of the engagement processes are consistent with the approved plans for engagement.
- **Inclusive** making best efforts to reach, involve and hear from those who are impacted directly or indirectly.
- **Committed** allocating sufficient time and resources for effective engagement of citizens and stakeholders.
- **Responsive** acknowledging citizen and stakeholder concerns; and
- **Transparent** providing clear and complete information around decision processes, procedures, and constraints.

The City's commitment to transparent and inclusive engagement processes is outlined in the [Engage Policy \(CS009\)](#)

Project Timeline

- **Summer 2021**
 - Project is launched with chartering session to update the Climate Strategy.
- **September 2021 to January 2022**
 - Targeted engagement with City staff, Climate Panel and external stakeholders.
- **November 29, 2021-January 10, 2022**
 - Calgarians are invited to provide their perspectives on climate change impacts and climate actions via the engage portal at calgary.ca/ClimateUpdate.
- **December 6, 2021, from 6:30 to 8 pm**
 - Virtual event to inform Calgarians about climate change in the Calgary context, and to provide an opportunity for members of the public to ask the project team questions about the Strategy update.
- **January to March 2022**
 - Project team to complete analysis of feedback, climate science and best practices to update the Climate Strategy and Action Plans.
- **Spring 2022**
 - Updated Climate Strategy presented to City Council for consideration.



Defining 'Equity-Deserving'

In this report, the term 'equity-deserving' will be used instead of 'equity-seeking'. A useful explanation of these terms is found on the [Kwantlen Polytechnic University](#) website and supports our use of the term equity-deserving in this work.

Anti-racism work is based on the fundamental belief that all humans deserve equitable treatment. That no matter who you are, you have a right to be treated fairly, without bias. And yet, when we talk about Black, Indigenous, and people of colour, why do we refer to them as “equity-seeking” rather than “equity-deserving”? Think about it. To seek something is to ask for something from someone else. And if equity is a right, which it is, no one should be put into the position of having to ask for it. The act of asking for something puts the asker in a vulnerable position. The asker assumes all the risk: the risk of appearing needy and the risk of having to give control over to someone else. And what of the person or group being asked? The “askee” becomes the one with all the power – the power to give, the power to deny, and the power to look the other way.

“Equity deserving” individuals have been identified in this engagement as those who are the most vulnerable to the impacts of climate change with reduced ability to recover from severe weather events, including low income, renters, homeless, seniors (65-75+), youth (under 18, and 18-25), racialized, LGBTQ2S+, or those who identify as having a disability.

Stakeholder and Tactic Summary

[illegible]



Social Service Agencies and Community Organizations

This audience was defined as an individual (I.e.- social worker or therapist) or group/organization with a particular interest in one or more aspects of the project whose input is either provided on behalf of equity-deserving groups or offers some level of subject matter expertise.

<p>Equity Deserving Calgarians Examples of equity-deserving groups include but are not limited to racialized groups; people with mental illness or physical or intellectual disabilities; seniors; youth; people experiencing poverty; LGBTQ2S+.</p>	<ul style="list-style-type: none"> • Understand how Calgarians living with vulnerabilities are impacted by climate change and in what context (financial, health, social, or mental health and wellness) • Understand what Calgarians need to be more resilient to climate change 	<p>Online engagement page</p> <ul style="list-style-type: none"> • November 29-January 10, 2022 	335 of the total 416 respondents
		<p>Virtual Workshops</p> <ul style="list-style-type: none"> • Jan 12, 2022 • Jan 15, 2022 	14 8
<p>Urban Indigenous Individuals This group is defined as Indigenous peoples who have chosen to live in Calgary.</p>	<ul style="list-style-type: none"> • Understand the capacity and ability of equity deserving Calgarians to recover from extreme weather events • Understand the implications of implementing climate plan actions on equity deserving groups and how to minimize negative impacts and maximize benefits 	<p>Paper Questionnaire</p> <ul style="list-style-type: none"> • Fair-Entry applicants • Drop-in Centre renters • Alpha House Rough Sleepers 	75 59 20

Rightsholders

The Climate and Engage teams conducted several meetings with the Indigenous Relations Office (IRO) between August and December 2021. Discussion focused on the best approach to Indigenous community engagement on climate action. The IRO advised these teams to first build Administrations internal capacity and understanding about Indigenous history, culture, and worldview to have a solid foundation prior to reaching out to the Indigenous community. They advised that senior leadership, as decision makers, should gain further education and understanding of the Indigenous experience.

Actions taken as a result were:

1. Commission an Indigenous consultant to conduct a literature review of the intersection between climate change and Indigenous knowledge and traditional practices, provide guidance through case studies on how to engage Indigenous peoples on climate change; identify gaps in knowledge and policy and guidance on ways of building relationships and ways toward equitable environments.
2. To conduct Indigenous led training for Administration, particularly leadership/decision makers, on Indigenous knowledge, history, Truth and Reconciliation, UNDRIP, The City's White Goose Flying Report, and Indigenous Policy Framework.

Truth and Reconciliation Calls to Action provide direction for the public sector to contribute towards reconciliation in several ways and one of them is through commitment to building capacity and understanding amongst employees and decision makers about Indigenous worldview. This foundational training is imperative to meet our commitment towards reconciliation and building trust between nations. Call to Action #57 – TRCTalk (acadiau.ca)

A specific training session was also conducted with the IRO and the climate team on Climate Adaptation and the Indigenous experience on December 14th, 2021, where topics such as impacts to Indigenous peoples because of climate change, adaptation responses, importance of adaptation program development with Indigenous peoples and knowledge, the importance of mapping the challenges of Indigenous communities against the Community Climate Risk Index were all discussed.

In addition, the voices and perspectives of urban Indigenous individuals who have chosen to call Calgary their home, were also collected in the engagement process.

Several tactics were used to reach equity deserving individuals and urban Indigenous individuals, as outlined in the following section.



What We Asked

The questions asked in this engagement process, for all tactics, were customized for each stakeholder group and the specific objectives of engaging with that stakeholder group. These questions were explored in the various tactics for each stakeholder group.

Questions asked of different stakeholder groups fell into eight theme areas, that are reported in detail in the [Summary of Input](#).

1. Understanding Emissions
2. Risk and Impacts of Severe Weather Events
3. Resilience and Ability to Recover
4. Barriers to Climate Action
5. Resources and Support
6. Prioritization of Adaptation Climate Action
7. Prioritization of Mitigation Climate Action
8. Additional Areas of Action for Consideration

For the complete list of questions asked on the online engagement page, visit:

- Calgarians- <https://engage.calgary.ca/climateupdate/calgarians>
- Agencies and Community Organizations- <https://engage.calgary.ca/climateupdate/agencies>
- Business- <https://engage.calgary.ca/climateupdate/business>

Communication Plan

Public engagement opportunities for and information about the Climate Strategy Update were promoted to City staff and Calgarians on [Calgary.ca/ClimateProgram](https://calgary.ca/ClimateProgram), and the online engagement page at [Calgary.ca/ClimateUpdate](https://calgary.ca/ClimateUpdate). Other forms of advertising include promoted and organic social media posts were also used on Facebook, Instagram and Twitter, digital native ads, YouTube ads, radio ads, posters distributed to community organizations, and internal City of Calgary employee communications channels. Targeted promotional emails to internal and external partners, stakeholders, and networks.

Internal networks include Community Social Workers, Fair Entry, Calgary Housing, and Social and Wellness Committee, City staff attendees at equity workshop.

External networks include personal contacts with agencies, agency workshop attendees.



Who We Heard From

Calgarians, Low Income, Equity Deserving, and Urban Indigenous Individuals

This information was collected from Calgarians and urban Indigenous individuals in a variety of ways. These tactics were selected and designed to help overcome barriers to participation such as reduced opportunity to meet in person due to COVID restrictions, access to technology, reduced level of understanding of content, language barriers, and the inability to complete the questions independently. The breakdown and summary of demographics of respondents are outlined in [Appendix A](#).

Online Engagement

This tactic included a series of demographic questions which were embedded in the main survey. This resulted in the ability to couple responses and sentiment to specific demographics. This tactic included the full suite of questions.

Paper Questionnaires

A paper copy version of the online survey was made available to equity deserving Calgarians through partnerships with internal and external programs. This paper copy version included Questions 1-4 and 6, as well as the demographic information questions. As supported by the Inclusive Engagement Guide, participants who took the time to complete the paper questionnaire were offered a \$20 gift card as a token of appreciation. This tactic was distributed through two partners:

1. Fair Entry Program- Calgarians applying for the program at the Municipal Building and Village Square during the first week of December were offered the opportunity to participate.
2. Drop-In (DI) Centre clients who currently rent subsidized housing in one of three locations in Calgary. Clients were offered the opportunity to complete the questions during their monthly support visit with DI staff.

Interviews

Interviews with Calgarians who are 'rough sleepers', meaning they are precariously housed and live in encampments, were completed through the month of December 2021 and into early January of 2022. These interviews were conducted through a partnership with the Alpha House and specifically the DOAP team (Downtown Outreach Addictions Partnership), whose role is to provide support and lifesaving supplies Calgary's homeless.

This tactic was customised to accommodate the reality of interview conditions, the unique needs of the staff and clients. The interview focused on two high level theme areas for discussion, which included lived experience of extreme weather events and resources previously used and required to cope with extreme weather events.



In total, twenty individuals were interviewed by the Alpha House, who on average, have been homeless/sleeping rough for 5.7 years. Two individuals report sleeping rough for 12 and 20 years, while many others have been rough sleepers for less than 5 years.

Agencies

Workshops

The primary method used to engage with agencies and community organizations was through interactive virtual workshops, held on Dec 13, 2021, and January 11, 2022, with a total of 23 participants representing 17 unique agencies and organizations. These groups included:

<ul style="list-style-type: none">• Vibrant Communities Calgary• John Howard Society• The Colour Factor• Caribbean 50+ Group• Women's Centre Calgary• Sagesse• Alberta Ecotrust• Scenarios to Strategy Inc.• Calgary Immigrant Women's Association	<ul style="list-style-type: none">• Silvera for Seniors• United Way• Alberta Indoor Comfort• Immigrant Services Calgary• Kambo Energy Group and Empower Me• Rise Calgary Resource Centres• Vecova• Climate Hub/ Fair Calgary Community Voices
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Online Engagement

In addition, an online survey option was provided to offer agency staff members another option to submit their input. We received 5 online responses from agencies. The results collected from the agency surveys were consistent with the results received from the agency workshops.

Agencies who submitted responses on the online engagement page were:

- Calgary John Howard Society
- Bow Valley College
- Canadian Poverty Institute
- Vecova
- Sonshine Community Services



Business

Online Engagement

The survey on the online engagement page for businesses received eight responses and are not considered representative of the business sector, yet still provide valuable insight into specific concerns and interest from the business owners or operators who did complete the questionnaire. The respondents shared that they represent the following sectors:

- Manufacturing: 1
- Construction: 1
- Energy: 2
- Community supports: 3
- Scientific and technical: 1

The verbatim response from business participants is reported in [Appendix B](#).

Next Steps

Perspectives received from stakeholders throughout the engagement process are summarized in this What We Heard Report, that will be published to www.engage.calgary.ca/ClimateUpdate in March 2022. The Climate team will then assess all inputs and formalize the Climate Strategy and Action Plan update.

In the spring of 2022, City staff will present a draft of the updated Climate Strategy to senior leadership, and then to City Council for consideration on June 7, 2022.



Summary of Input

This portion of the What We Heard Report was written to support the climate team in making decisions regarding the update to the Climate Strategy and Action Plans. It is therefore very thorough and provides extensive supporting information to help illustrate concepts and ideas.

Members of the public and other stakeholders may be drawn to specific areas of interest within the report; however, it is not intended to be read in its entirety for all audiences.

Reporting Methodology

The following section outlines what we heard from all stakeholder groups in each theme area, if they were asked questions related to the theme. For Calgarians, the demographic breakdowns of those who responded through the online page and paper questionnaires have been combined for a total Calgarian participation number and equity group reporting purposes. Finally, due to the sensitive and unique nature of the responses from Calgarians supported by the Alpha House, these responses are reported separately, and all verbatim comments have been included.

As integrating climate equity into the update of the Climate Strategy was one of the guiding objectives of this engagement process, and the responses, sentiments, values and supporting quotes from equity deserving groups will help to highlight the voices and needs of Calgarians that don't usually participate in City of Calgary engagement projects.

Perspectives of Calgarians are reported in the following ways:

1. All Responses- this group includes all responses received from Calgarians.
2. Low income only- this group is isolated to include only Calgarians who identified income in the lowest two income brackets (0-\$25,000 and \$25,000-\$49,999).
3. Equity deserving individuals- this group is isolated to include low income, renters, seniors (65-74 and 75+), youth (under 18 and 18-25), individuals who identify as having disability, identify as LGBTQ2S+ and identify as racialized. While some intersectionality occurred between these demographic characteristics, individuals meeting one characteristic were included here.
4. Indigenous individuals- specific to those who identify as Indigenous.

Agencies and Community Organizations responses are also reported in each theme area. Due to the low number of responses from the online engagement page, verbatim statements from these online surveys have been included in the theme areas.

Theme Area #1- Understanding Emissions

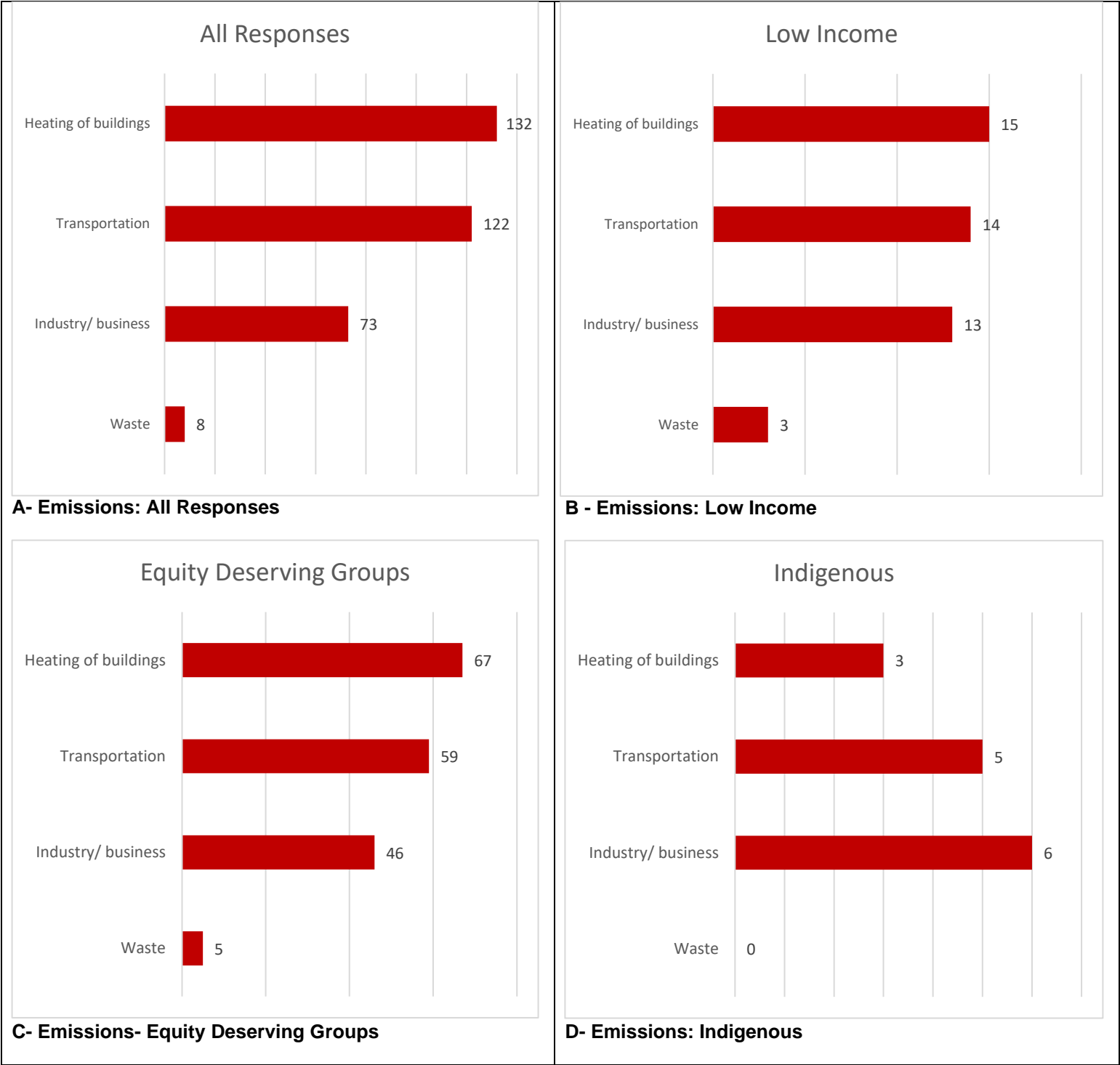


Figure 3- Understanding Emissions



Figure Summary

Figure 3 (A-D) above outlines what we heard from Calgarians when asked the question:

Where do you believe most greenhouse gas emissions come from in Calgary? Please select one. (Q5)

All Responses

The greatest number of Calgarians who responded to this question say that they think the most emissions come from heating of buildings, followed by transportation and then business and industry. Waste was mentioned by the least number of respondents and the incidence of this response is significantly smaller than the rest.

Themes from All Responses

Various themes emerged when respondents were given the opportunity to provide other suggestions.

The highest occurrence occurred for themes about electricity generation, individuals who share sentiments about not being concerned about emissions, and additional emission sources.

When it came to **electricity generation**, a few individuals shared:

- *The electric power grid ... fossil fuel powered!!!!!!!!!!!!!! This information is decades old !!!!!!!!!!!!!!!*
- *Electricity generation by Enmax*

For those **not concerned**, some said:

- *It's not a problem the city should be concerning itself with!!*
- *Our greenhouse gases is acceptable. We need to heat our homes and drive. Too cold not use our clean natural resources.*
- *We should be increasing our greenhouse gas emissions, as they are directly correlated to wealth*
- *CO2 comes from all these.... in such minuscule amounts on a global scale it is irrelevant and saying different is pure political virtue signalling.*

Additional sources of emissions that were mentioned include:

- *CO2 is responsible for the greening of our planet. Atmospheric water Vapor affects our climate way more than carbon.*
- *Military, police, hospitals industry*
- *We're lead to believe items are being recycled yet most end up in landfills. In a city with over a million people, landfills contain an enormous amount of waste and require venting to release gas emissions.*

The next most common themes were about agriculture and farming, other countries, and transportation.



Those who mentioned **agriculture** said:

- *Animal Agriculture (meat and dairy industry)*
- *Animal agriculture is the leading cause of climate change. Calgary's vegan population is growing but we need more people do what's right for the earth and the animals*
- *Animal agriculture. We CANNOT have a climate conversation without including the impact of animal agriculture.*

For those who felt that **other countries** are to blame, some said:

- *Emissions are low compared to India/China: a non issue.*
- *China burning coal, India, Chinese factories in Africa*
- *the cities emissions are not even measurable on a global scale.*

When it came to **transportation**, some said:

- *Air travel*
- *Government vehicles idling*
- *Personal & commercial vehicles.*

Low Income Individuals and Equity Deserving Groups

Low income and equity deserving individuals mimic the same pattern of responses in Figures 3-B and 3-C where they think the most emissions come from heating of buildings, followed by transportation and then business and industry and waste having the lowest mentions.

Themes

The themes mentioned the most by low income Calgarians were **other sources** of emissions and **other countries**.

- *People, the 1.4 million here, breathing. But this is negated by the some billion trees in canada.*
- *China, India, other third world country that Canada can't control*

Indigenous Individuals

In contrast, Indigenous respondents felt that Industry and Business are the largest contributor of emissions, followed by Transportation. Heating of buildings was mentioned by the least number of respondents and waste was not selected by any individuals (Figure 3-D).

Themes

The most common theme from Indigenous individuals who expanded on this question was to point out **other sources**, with a clear **discontent for Council and the Mayor**. They said:



- Mayor and Council.
- City hall in private meetings. Too much BS in the room spilling out onto city streets.
- Cattle/Cattle industries.

Actual Emissions in Calgary

The emissions in Calgary are 59 percent from buildings (both residential, commercial, and institutional), 32 percent from transportation, 8 percent from industry and business, and only 1 percent from waste, as outlined in Figure 4.

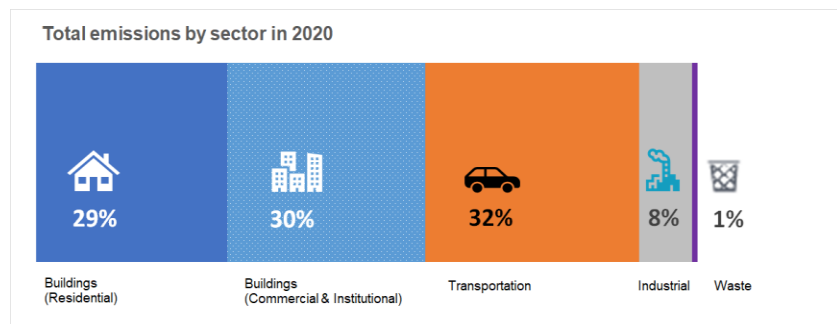


Figure 4- Breakdown of Calgary's Emissions

Considerations for the Climate Strategy and Action Plan Update

Based on what we heard, most Calgarians know the sources of emissions in our city, but some mentioned many other sources, including agriculture. Another area mentioned quite often was Calgary's levels compared to other countries. Calgary's emissions of course are not comparable to that of other countries. Further education is required to highlight what emissions are included in Calgary's total, Calgary's emission sources and levels compared to other municipalities, our contribution to Canada's total emissions, and Canada's emissions compared to other countries. Most importantly, education is required about why Calgary is taking responsibility to reduce emissions, regardless of our global contribution.

Theme Area #2- Risk and Impacts of Severe Weather Events



Figure 5- Risk of Severe Weather Events



Figure Summary

Figure 5 (A-D) above outlines what we heard from Calgarians when asked the question:

*Which climate related and extreme weather events do you think pose the greatest risk to Calgarians?
Please rank from the highest risk to the lowest risk.*

The weather events provided as options in this question include extreme heat, hail, river flooding, severe storms, drought, heavy snowfall, wildfires, heavy rainfall. This list of weather events has been identified by The City through a risk a vulnerability assessment as the events that pose the highest risk for Calgary.

All Responses

Of these options, respondents ranked extreme heat, hail, river flooding, and severe storms as the events that pose the greatest risk to Calgarians. These weather events are most likely top of mind for Calgarians as the city experienced a long hot and dry summer in 2021, a devastating hailstorm in 2020, and of course the impactful flood in 2013. Drought, heavy snowfall, wildfires, and heavy rainfall were perceived and ranked as a lower risk overall.

Low Income Individuals

The notable differences from low income Calgarians in Figure 5-B, is that hail ranked lower compared to responses in Figure 5-A, but heavy snowfall ranked significantly higher.

Equity Deserving Groups

Perceived risk of severe weather events for equity deserving Calgarians resembles that of low income Calgarians, with heavy snowfall ranking higher than the all-respondent ranking. Drought, however, is ranked notably higher than the low income only group, as is hail (Figure 5-C).

Indigenous Individuals

The notable difference in the perspective of Indigenous participants, is the sentiment that wildfires pose a more significant risk to Calgary than the other participants ranked this event (Figure 5-D).

Homeless/ Rough Sleepers

Calgarians in encampments who were interviewed by the Alpha House DOAP team, had a different sentiment when asked about their lived experience of severe weather events and which ones posed the greatest risk to them personally. Of the 20 respondents, 17 shared that extreme cold is their greatest risk, followed by wind, and heavy snowfall.

It is worth noting that extreme cold and wind were not identified by The City in the vulnerability and risk assessment as one of Calgary's biggest risks and therefore were not options presented on the online engagement page and the paper questionnaires.

It is also important to acknowledge that the interviews with rough sleepers took place during a particularly cold duration in Calgary, and this response would have been top of mind for Calgarians in encampments.

Agencies

Agencies were asked a similar question about severe weather events for the people they work with:

Which climate related and extreme weather events do you think pose the greatest risk to the clients you work with? Please select your top 3. (Q6)

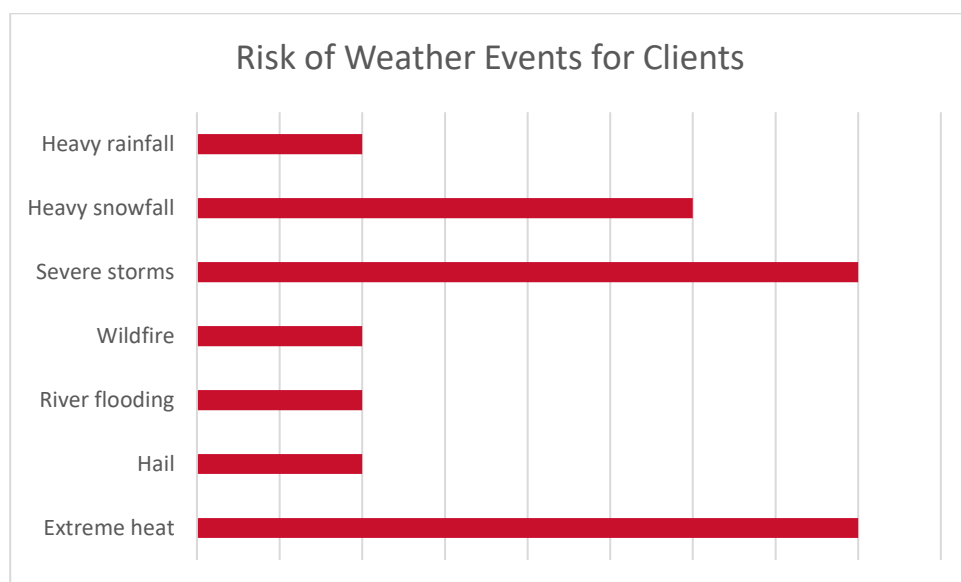


Figure 6- Agency Ranking of Severe Weather Events

Agencies felt severe storms and extreme heat pose the greatest risk to the people they work with and support, followed closely by heavy snowfall. Hail, river flooding, wildfire, and heavy rainfall being less of a risk.

When asked to provide further explanation, agencies and community organizations shared the following verbatim statements:

- Many of our folk are outside much of the time and are **not adequately prepared for extreme weather conditions** so it increases their challenges and **provides more barriers** and **stretches their coping skills to the max**.
- Many of our students are **ill-prepared to deal with extreme heat, severe storms, and heavy snowfall**. Either they do not have the proper clothing, or they are **not in control of their home environment** (i.e.: are renting)

- We are **seeing increased extreme weather events** such as hail and severe storms and would like to highlight the **impacts of insurable events on communities** from an equity standpoint.
- The **aging and vulnerable populations are sensitive to extreme heat** and can have **negative impacts on their health**. Flooding and heavy snowfall has impacted our consumers **ability to access supports, programming, and employment**.
- Our clients **do not have access** to air conditioners, cars and other tools that help **to mitigate the risks and discomforts** of these types of events.

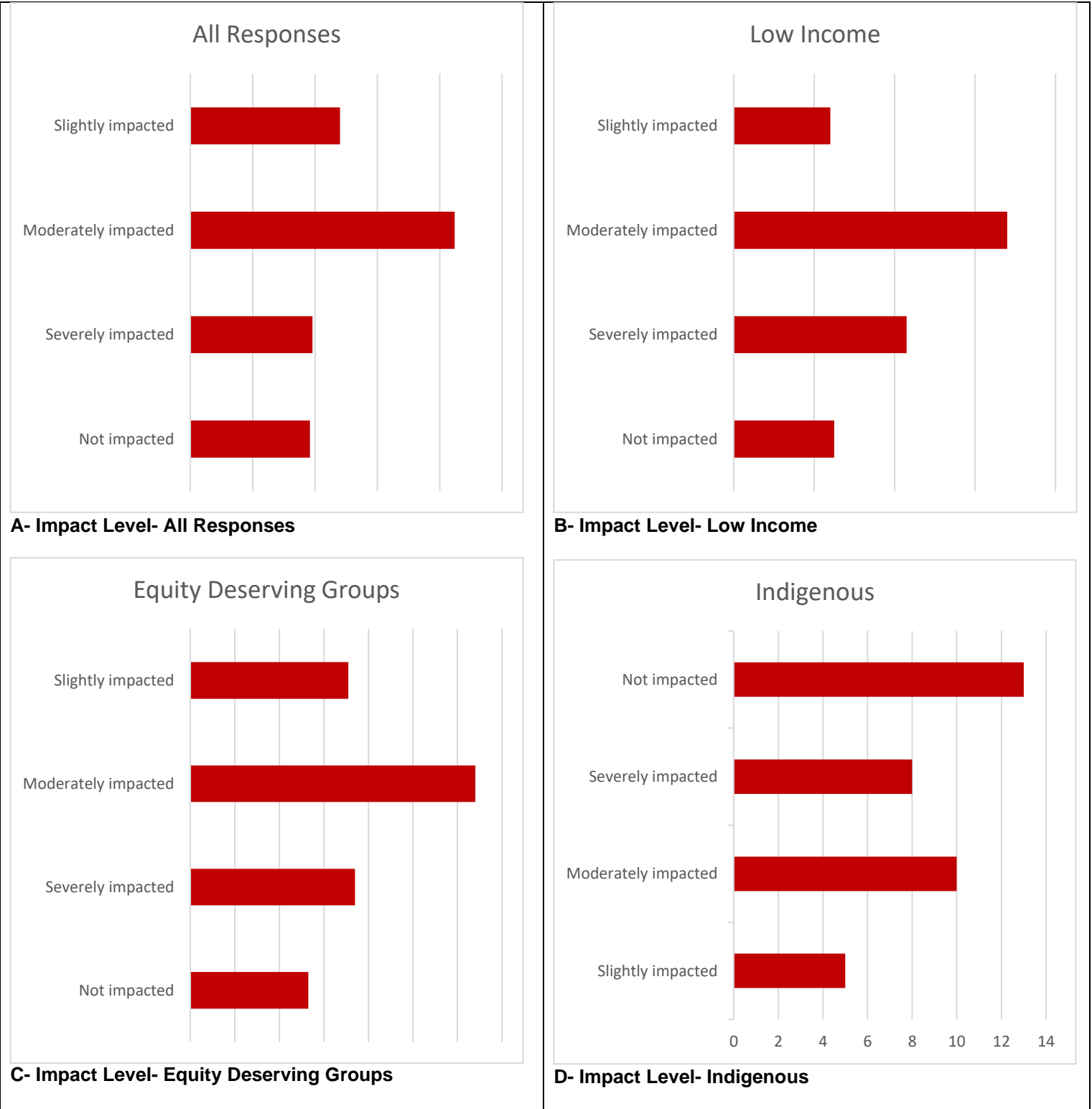


Figure 7- Impact of Severe Weather Events



Figure Summary

Figure 7 (A-D) above outlines what we heard from Calgarians when asked the question:

Think about a time when you experienced an extreme weather event in Calgary. To what extent were you impacted? (I.e., financially impacted due to property damage or loss of income, physically impacted due to injury or illness, or mentally impacted due to shock or stress). Please consider the extreme weather events listed above.

All Responses

Figure 7-A outlines how all respondents rated their personal impact to severe weather events. The largest number of Calgarians shared that they have been moderately impacted by past extreme weather events, followed by slightly impacted. A smaller number of respondents report severe impact or no impact at all.

Low Income

For low income Calgarians, the highest number have also been moderately impacted, but in contrast to all Calgarians, low-income individuals shared that they have a higher incident of severe impact from weather events and less saying they were slightly impacted or not impacted at all.

Equity Deserving Groups

Equity deserving individuals have also been moderately impacted, with a fair split between slightly impacted and severely impacted next.

Indigenous

The largest number of Indigenous individuals reported not being impacted by severe weather events at all, followed by moderately impacted, severely impacted and finally slightly impacted.

Themes from All Responses

Divergent Assessment of Risk and Impact

When asked to explain the impact they have experienced, a slightly different pattern emerged compared to how respondents ranked risk of an event. Most respondents mentioned specific weather events that they connected with the impact they were describing. Wildfires were rated relatively low for overall risk, but when discussing the personal impacts of events, smoke from regional wildfires was widely mentioned.

Similarly, the flood of 2013 was rated as the third riskiest event by most respondents. While a relatively small number of people shared how they were severely impacted by this event, many mentioned that they were not directly impacted, and they only observed the impact of it on others. This indicates there is a

possible disconnect between how people assess the overall risk of weather events and the impact that they experience personally. A large event, like the flood, that occurred nearly a decade ago is assessed as a higher risk than an event that has occurred annually (wildfire and smoke) with a much further reaching impact on health and wellbeing.

In addition, the connected nature of the weather events was not always made or shared. For example, Figure 5 shows that people assess extreme heat as the riskiest event for Calgarians, yet wildfires and drought which are related events, are ranked significantly lower. Extreme heat and smoke from wildfires were mentioned together often in comments, but extreme heat and drought were not.

Many themes are mentioned in one statement. In descending order of most mentioned to less mentioned, the themes about weather impacts were:

Property Damage and Displacement

This theme includes property damage to homes, vehicles, and garden. It also includes comments from respondents about losing their home.

- *Slope erosion after 2013 flood caused us to have to stabilize our house.*
- *I lost my rental apartment and ended up homeless when the flood happened. Anything I did save ended up needed to be thrown away. I lost everything.*
- *I have lived in Calgary my whole life and lost jobs, homes, cars and even my garden because of all of the above.*
- *Car was written off due to hail damage once*
- *Hail damage to vehicle and home siding.*
- *Hail cracked our skylights and we ended up having the roof replaced. Also had 2 cars hail damaged from that storm.*
- *Hail storm wrecked our roof, siding, dented our tool shed and shredded trees as well as blasted the paint off our fence.*
- *I couldn't cook in my house for a week this summer because it was too hot. My vegetable garden has been destroyed several times due to hail, or heavy rain.*

Health and Safety/ Mental and Emotional Stress

This theme includes mentions of physical impacts, such as breathing issues, heat exhaustion and the mental and emotional stress of extreme weather events.

- *Smoke in the summer has a major impact on my mental and physical health. Being unable to go outside in summer and enjoy physical activity is so upsetting.*
- *I have asthma and thus had to remain indoors. I then had to buy an air conditioner*

- *When we have wildfire smoke that affects our air quality significantly, or when we have extreme heat days, I stay inside and keep my kids inside. On extreme heat days I also noticed this last year that my vegetables in my garden actually seemed sunburned. These events create stress.*
- *Mentally impacted by the extreme cold in the winter and the heavy smoke in the summer - can't go outside, the brain feels foggy, feeling sadness, gained weight.*

General Quality of Life

This theme includes sentiments that describes individuals having to change their regular lifestyle and behaviour due to weather events, such as staying inside for extended periods of time, changing plans, and not getting the activity they desire.

- *Impacted summer due to wildfires right out my backyard. Kids with lung issues already impacted even more. Cancelled vacations with out refunds, etc. Flooding- had to take time off work which I didn't get paid for.*
- *Did not leave the house for recreational purposes during extreme heat and smoke or during extreme cold.*
- *Do not have AC, during heat dome, but did have a cool garage to live and work in.*
- *Summers without being able to outside to recreate for weeks at a time is tough in a part of the world with such long winters. Makes me question living here to be honest.*
- *During the heat dome of 2021 we stayed indoors during the afternoons, limited our activities and slept in the basement.*
- *the heat wave last summer was so bad. i could barely work at home since we do not have AC. i am so worried that this is only going to get worse. my family had to buy fans, spray bottles, i rubbed ice all over my body at night, we slept on the floor in the basement to stay cool.*

Financial

This theme includes cost to repair homes and property, increased costs to insurance, utility bills and food, and the need to purchase items to manage events, such as air conditioners and fans.

- *Our home was hit by mega hail last year, and we struggled to pay the deductible and depreciation. We had hoped to save money to invest in energy efficiency upgrades to our home (solar panels, new windows and doors, heat pump), but instead we have to pay for a new roof and siding because of hail.*
- *Had damage to 2 large elm trees and have been pruning and caring for them trying to keep them over the last 5 years. Was out of power and furnace wouldn't restart. Was \$10000 and more. Insurance deductible is now very high... \$10000 for home. \$2000 for car*
- *Extreme heat and wildfire smoke in summer 2021 meant my wife and infant daughter stayed inside for most of a month. Now we are paying for a/c and air filtration to be installed*
- *Our house sustained over \$31k in damage and our cars both sustained over \$10k in damage due to 2021 hail storm. Also drought this year caused a much higher water bill to keep things green!*



- *Hail destroy my car house because of that my insurance went up*

No Direct Impact, Only Observed

There was relatively high group of respondents who did not report direct personal impacts, but many mentioned the widespread impact and the direct impacts of family and friends that they observed.

- *We were not affected directly by the flood in Calgary as we live 80 blocks north of the Bow River no flooding here. My husbands' workplace was also on the North hill so no flooding.*
- *Did not impact me personally..but caused problems in the city when the flooding of 2013.*
- *I'm very protected by my privileges - I live on a hill so the 2013 floods didn't impact me much. I'm also mid income so I can adjust to changing weather (pay for air conditioning, pay for repairs to car/house).*
- *In the 2013 flood, I didn't live in an area that was directly affected but the ripple effects (school, transportation) still affected me. More importantly, I had some friends who lived in Discovery Ridge who had to relocate and whose houses were damaged.*

Transportation

This theme includes mentions of impact to public transportation and ability to travel around the city.

- *2012 floods shut down Downtown YYC for over a week, unable to go to work*
- *Impassable roads due to heavy snow and broken tree branches*
- *Flooding in 2013 impacted public transit which i rely on to get to work.*
- *I don't have a car, I commute to work by cargo bike so deep snow stops easy and safe biking*
- *Smoke season is a severe impact on me; I cannot escape the smoke and particulate whether in indoor or outdoor spaces; also, I rely on active mode transport to move around Calgary, so my lungs are inhaling particulate deeply and in greater volume than if I were sedentary.*

Work and Income

This theme includes sentiments about work opportunities and loss and income opportunities and loss.

- *2012 floods shut down Downtown YYC for over a week, unable to go to work*
- *Demands of work increase, round the clock response due to emergency*
- *The flood of 2013 left me homeless and I experienced job loss. Extreme cold impacted any jobs that I obtained outdoors. If it was too hot, then I would need to know where to get water.*
- *2012 floods....my property wasn't impacted, but the hospital where I work was turned into an emergency centre*
- *Was working an outdoor hourly-paid job during the 2013 floods. We were closed, lost income and had to factor that into my budgets.*
- *I will often get time off work because of severe weather.*



- I do snow removal in the winter. I need extreme weather just to do seasonal work. The impact is good for me. Other months I do flagging and it does not matter the weather. I just am prepared.

Criticism of Process and Government

This theme summarizes negative sentiments about the climate change program, current level of climate action taken by The City and the overall engagement process.

- *The risk that poses the greatest threat to Calgarians is woke politicians wasting 10's of millions trying to play God. Focus on reduction pollution. Carbon is NOT a pollutant. It is the essence/building block of life. Moreover, CO2 sustains plant life, therefore all life. [Profanity]*
- *A climate change team was never discussed or mentioned as part of your platform. I am extremely disappointed you raised our taxes to pay for this. How many full time jobs on this? Meanwhile people are starving and freezing to death on the streets. Get focused.*
- *Extreme weather events are part of nature. Your survey forces one to name extreme events with the impression that the respondents agrees that they are a major concern.*
- *The only impact on climate change to myself has been the useless carbon tax, which I know is out of municipal scope. Sure I believe climate is changing, but I don't believe all the "end is near" extremism.*
- *I feel concern and stress that our municipality is not doing enough to mitigate the impact of climate change and that our city is growing in the wrong way. I am concerned to see Council approving new communities that are energy intensive when our established area needs to be a planning priority.*

Lack of Support, Resources, and Infrastructure

This theme includes sentiments about not having the appropriate services, resources, support, and infrastructure to manage through a severe weather event.

- *Damage to property, financial loss, physical impact due to injury, lack of accessible communication for deaf (captioning and ASL interpreter), mental impact of stress*
- *Hailstorm end of June 2021. I live in the SE and my house had damage on the roof and siding. Still waiting for the repair.*
- *During the heat wave this past summer (2021) I was working from home in a condo without A/C. Sourcing an A/C unit was not possible (\$\$ and availability). My condo faces North and is only on the second floor but the indoor temperature was often around 30C. It made it difficult to work and sleep.*
- *During the 2021 Extreme Heat event, living without air conditioning was challenging. Lack of tree shade on city streets makes getting about as a pedestrian more difficult.*
- *Food shortages effected me.*
- *Most Calgary residential buildings do not have central air, not a lot of outdoor shade from bigger trees, pavement overheating*



Acknowledgement of Larger Impacts

This theme includes sentiments from those who referred to things getting worse and the impact on future generations.

- *It's just the start of the impact in Calgary but eventually it will lead to extreme weather patterns.*
- *Every summer the extreme heat is unbearable and its only getting worse. This makes me concerned for the future and impacts my mental health. Furthermore, I was impacted by the 2013 Calgary floods. I have a sense of solistalgia from the loss of the park that once was.*
- *When I think extreme weather events I start thinking about food security and all the very real threats climate change events pose. The impacts of extreme weather events go far beyond the acute issue of fixing hail damage to the generational thinking that is required to structure cities differently*
- *I am nervous about the overall impact to extreme weather events, and what kind of world we are leaving for our younger generations. I haven't been directly impacted, but I can see how severe weather is impacting all around us.*
- *the extreme heat and wildfire smoke this summer was borderline unbearable. It was disheartening to know that the next summers and summers after that are likely to be worse.*
- *I am concerned more with the ecological impact of such events than personal loss.*

Denial of Climate Impacts

This theme focuses of comments that dismiss the science of climate change and its associated impacts.

- *How about spending money on things that actually matter and no waste it on stupid climate change BS.*
- *Myself, nor any of our Family or friends I have spoken with have experienced any weather event that has not happened in the past. Calling a couple weeks of hot weather "extreme" is complete nonsense.*
- *Weather happens, and will always happen. I'm surprised that this is news, or needs some kind of program to accomodate.*
- *Worry about roads and infrastructure. Stop with this climate change bs!!*
- *You can't control the weather and most calgary and aren't interested in you wasting our tax dollar in an attempt.*
- *Climate events are natural occurrences and part of living on this planet. The planet and climate have been changing for billions of years and all life must adapt to it.*



Themes from Low Income Individuals

Themes not mentioned by low-income Calgarians, include **Criticism of Process and Government** and **Denial of Climate Impacts**.

Themes that occurred most for low-income individuals include **Health and Safety, Quality of Life, Property Damage and Displacement**, and **Transportation**. Many of these themes are found in one statement.

- *Due to the extreme heat during the summer of 2021 I was physically & mentally impacted, as my chronic stomach issues flared up because of the constant heat. I don't have access to A/C. Because of the consistent wildfire smoke I couldn't open the windows often so that my asthma wouldn't flare up.*
- *As a vulnerable senior I found the heat dome miserable and scary*
- *Extreme heat causing multiple bouts of heat exhaustion.*
- *Hail in 2020 caused a great deal of house damage. The wildfire smoke, extreme heat, and even this recent stretch of very cold temperatures has impacted our ability to be outside when we otherwise would be.*
- *2010 Insurance pay out was \$22,000 due to hail damage. Every time it rains heavily for four days straight (as in 2013), I commiserate with those who were flooded and worry about my home on 6th Ave NW.*
- *I was emotionally impacted as well as physically because I could no longer commute to work*
- *Impacted my ability to get to work. Fortunately I generally commute by bicycle so I was able to ride to work. Driving a car or taking c train to work would not have been possible.*
- *Impacted due to displacement following the storm*
- *Was unable to commute into downtown to work during the flood.*
- *Extreme heat and extreme cold has meant an increase in energy usage in our home. Also impacts how much time one can spend outdoors.*

Themes from Equity Deserving Groups

Themes that come up the least from equity deserving individuals are **Criticism of Government and Process**, and **Denial of Climate Change and Impacts**.

The themes mentioned most for this group are consistent with the responses from all Calgarians, with a few the notable differences. Equity deserving individuals account for a high proportion of various sentiments, including approximately 50% of comments about **Health and Safety/ Mental Health and Stress, Lack of Resources and Support, Property Damage, Transportation**, and comments about **Not Being Severely Impacted**.

- *I live in a condo so certainly not impacted the same way as individual home owners*

- *As a senior in a condo that doesn't have AC I had a difficult time staying cool during the day at night*
- *Heatwave over the summer: 1) my home has no A/C, and even with open windows at night, etc, it was close to 39 C. Physical problems. 2) I couldn't escape the heat by going to a public place with A/C because of COVID risk. Mental problems. 3) Cost of even simple fan was high - financial impact.*
- *Extreme heat causing multiple bouts of heat exhaustion.*
- *Transit stopped running.*
- *Winter in Calgary is very difficult for transit users like myself*

Themes from Indigenous Individuals

Themes not mentioned by Indigenous individuals are **Impact on Business**. Due to the lower number of Indigenous respondents, comments are dispersed through most themes in a small number.

The few themes more common for Indigenous individuals were **Health and Safety, Quality of Life, Financial**, and **Denial of Climate Change Impacts**.

- *I could not live in Calgary during the Firesmoke season owing to inability to breathe. Had to fly out and get a hotel with air conditioning. I also bought hepa filters for the house. Thousands of dollars. We are looking to move every summer.*
- *When our baby was just born we were unable to leave the house or open the windows due to smoke from wildfires, 5 minutes with windows open and she'd start coughing. We didn't have AC so our house got up to 28C and we all slept in the basement.*
- *Born and raised in Calgary have not noticed climate change at all. Calgary has always always had crazy weather. Normal to go from -20 to 10 in 24 hours*
- *Was unable to commute into downtown to work during the flood. Extreme heat and extreme cold has meant an increase in energy usage in our home. Also impacts how much time one can spend outdoors.*

Homeless/ Rough Sleepers

When speaking about their lived experience of severe weather events, rough sleepers reported severe impact with themes of survival, and physical harm connected to the sentiment of not having anywhere warm to go.

The lived experience, personal impacts, and barriers for coping with extreme cold for homeless populations, present actual life, and death situations for these individuals.



Themes from Rough Sleepers

Some of the comments that expanded on this sentiment were written by DOAP staff:

For those who mentioned **survival**, staff wrote:

- heavy snow and high winds. **Difficult to maintain shelter/structure** outdoors, cold weather accompanying large snowfall
- winter weather and freezing rain, **hard to travel on bike to complete daily tasks to survive**
- cold, hard to continue with daily activities (panhandling, cleaning camp, getting supplies, etc)

For those who talked about **physical injury** and **not having a warm place** to go, staff wrote:

- extreme cold, suffering **frost bite** from Calgary winters
- extreme cold/wind, frostbite - **skin burns so bad it's like razor blades** and **no store will let them in. shoes and socks freeze to feet** when wet
- constant fluctuations, had **fingers amputated** this year
- cold weather. States that the winters here are horrible for homeless people. States that the **City wants to see people freeze**, as **they kick people out of train stations**, and **kick them out of shelters**. Would not share why they were kicked out.
- extreme cold, stuck outside, **got frostbite**, lost fingers, **barred from shelter**
- **was evicted** in November and was **unaware of resources**, had to stay outside for 3 weeks, **frostbite**

Agencies

Agencies and Community Organizations were asked a similar question about how severe weather events have impacted the people they work with.

In what ways have extreme weather events in Calgary affected the people you support? (Q5)

- Heat stroke and dehydration, **breathing issues** due to excessive smoke in the air. **Displacement** due to flooding.
- Many of our consumers have **health issues** and are a vulnerable population. Extreme weather events can impact their physical and/or mental health conditions, **make accessing supports difficult**, make it difficult to continue with their supportive employment.
- Many of Bow Valley College's learners are international students or new Canadians. Many of them share how **extreme weather has impacted their home communities**. In addition, **increasing food prices** due to extreme weather events are impacting our students.



- We are currently doing a community-based impact study on the June 13, 2020 hailstorm. We are learning more about the **impacts that extended beyond the physical hail damage.**
- The large majority of our clients do not have access to a reliable vehicle. So extreme weather events can often cause **issues with transit.** Also, it is **very cold/hot to wait so long for buses.**

Considerations for the Climate Strategy and Action Plan Update

City wide risk and vulnerability assessments, based on likelihood and consequence, are required for planning city wide mitigation and adaptation measures, programs, resources and supports to increase Calgary's ability to minimize the impacts of these events and our collective ability to recover from them.

However, we heard all Calgarians have vastly different lived experiences, understanding and personal risks associated with each type of event. Specifically, rough sleepers and some transit users said that extreme cold is the riskiest weather event for them, but this event is not included in the list of weather events in the Climate Strategy and Action Plans.

This is also an opportunity to review how impacts on how the health and wellbeing of Calgarian's is factored into the risk assessment of weather events and what events should be prioritized for adaptation-events with widespread impact annually, or high impact events for some, that rarely occur.

We also heard that people's risk assessment of events does not always match their personal impact of that event. People also do not connect individual events in their risk assessments (extreme heat, wildfires, and drought). This presents an area that requires further education for all Calgarians. Linking impacts of climate change to health and wellbeing and personal safety is a compelling motivator for many people.

We heard that people are spending money on reactive purchases like air conditioners, fans, and filters during an event like extreme heat to be comfortable, but have a harder time justifying the proactive mitigation measures like energy efficiency upgrades etc. It will be important to communicate the cost benefit of proactive spending compared to reactive spending to manage during an extreme weather event.

"Extreme cold wasn't mentioned above but this affects me most as a car free person."

Equity deserving workshop participant

Theme Area #3- Resilience: Capacity and Ability to Recover

Figure Summary

Figure 8 below outlines what we heard from Calgarians when asked the question:

To what extent do you agree or disagree with the statements below that describe your ability to recover from the impacts of an extreme weather event such as home repairs, vehicle repairs/replacements, mental health, and/or employment disruption?

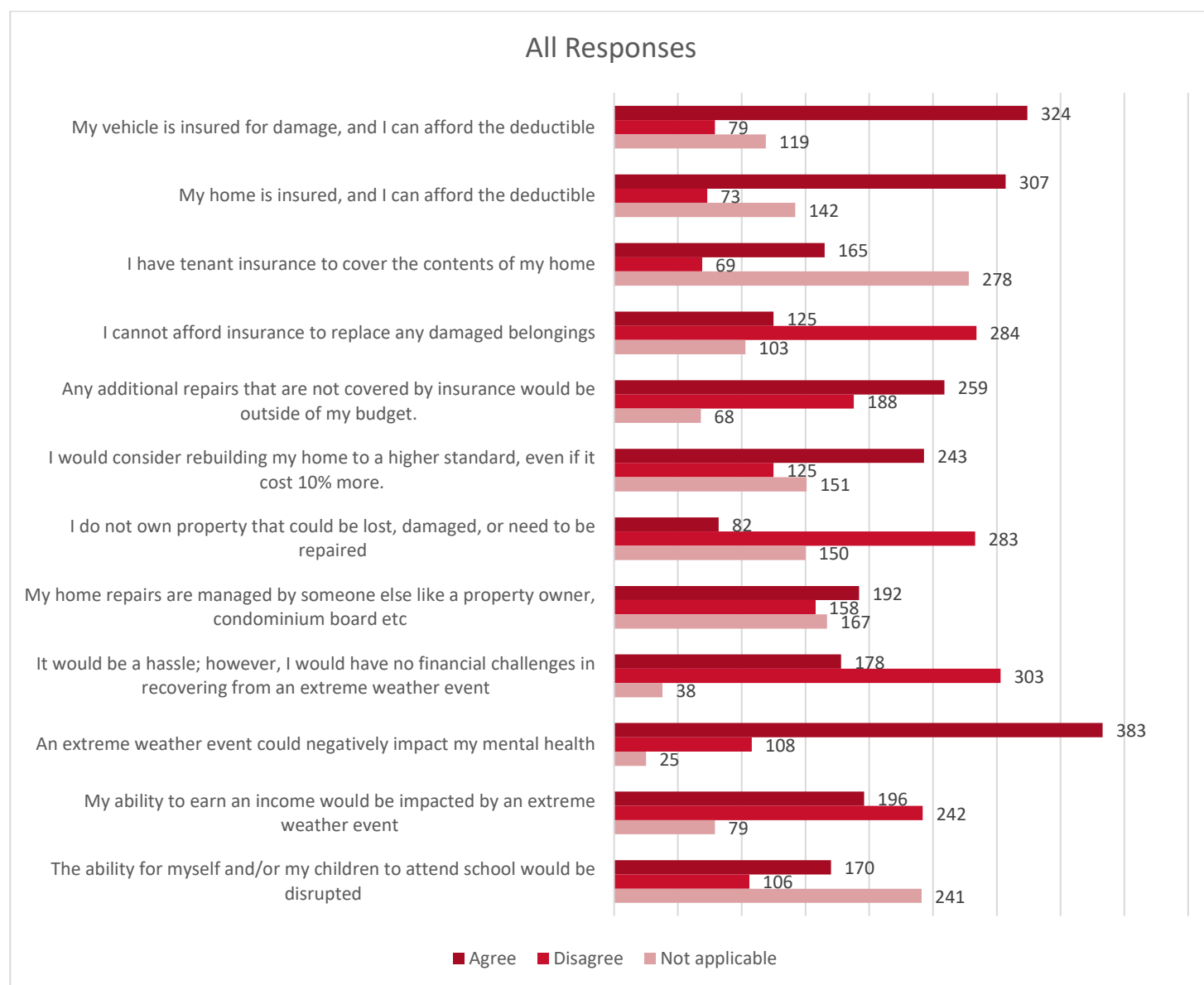


Figure 8- Recovery of Severe Weather Events

A few notable similarities occurred across the board for all Calgarians whether they be high income, low income, equity deserving or Indigenous individuals. All report owning valuable property that could be lost, damaged or need to be repaired. While this could mean a home or vehicle to some, it also means a few valuable belongings to others. The majority of Calgarians agree that recovering from an extreme weather event would be a hassle and would pose financial challenges- regardless of income level. The majority of all Calgarians also agree that costs above the cost of their insurance deductible would be out of budget. Finally, the majority agree that an extreme weather event could pose a big threat to their stress level and mental health.

All Responses

Calgarians share a relatively high capacity to recover from an extreme weather event (Figure 8), sharing that they have insurance in place, the interest in rebuilding/ replacing to a higher standard, and limited ability to have income disruption due to an extreme event. Reported limitations to recovery include an anticipated elevated level of stress and impact to mental health, a limitation to costs above insurance deductible and disruption to attend school.

Positive indication of a capacity to recover from an extreme weather event is shown in the following statements:

- My vehicle is insured for damage, and I can afford the deductible (high level of agreement)
- My home is insured, and I can afford the deductible (high level of agreement)
- I have tenant insurance to cover the contents of my home (high level of agreement)
- I would consider rebuilding my home to a higher standard, even if it cost 10% more. (high level of agreement)
- My home repairs are managed by someone else like a property owner, condominium board etc (high level of agreement)
- I cannot afford insurance to replace any damaged belongings (high level of disagreement)
- My ability to earn an income would be impacted by an extreme weather event (moderate level of agreement)

Negative indication of respondent's capability to recover from an extreme weather event is shown in the following statements:

- Any additional repairs that are not covered by insurance would be outside of my budget. (high level of agreement)
- The ability for myself and/or my children to attend school would be disrupted (High sentiment of agreement for those in which this statement applies)

Low Income Individuals

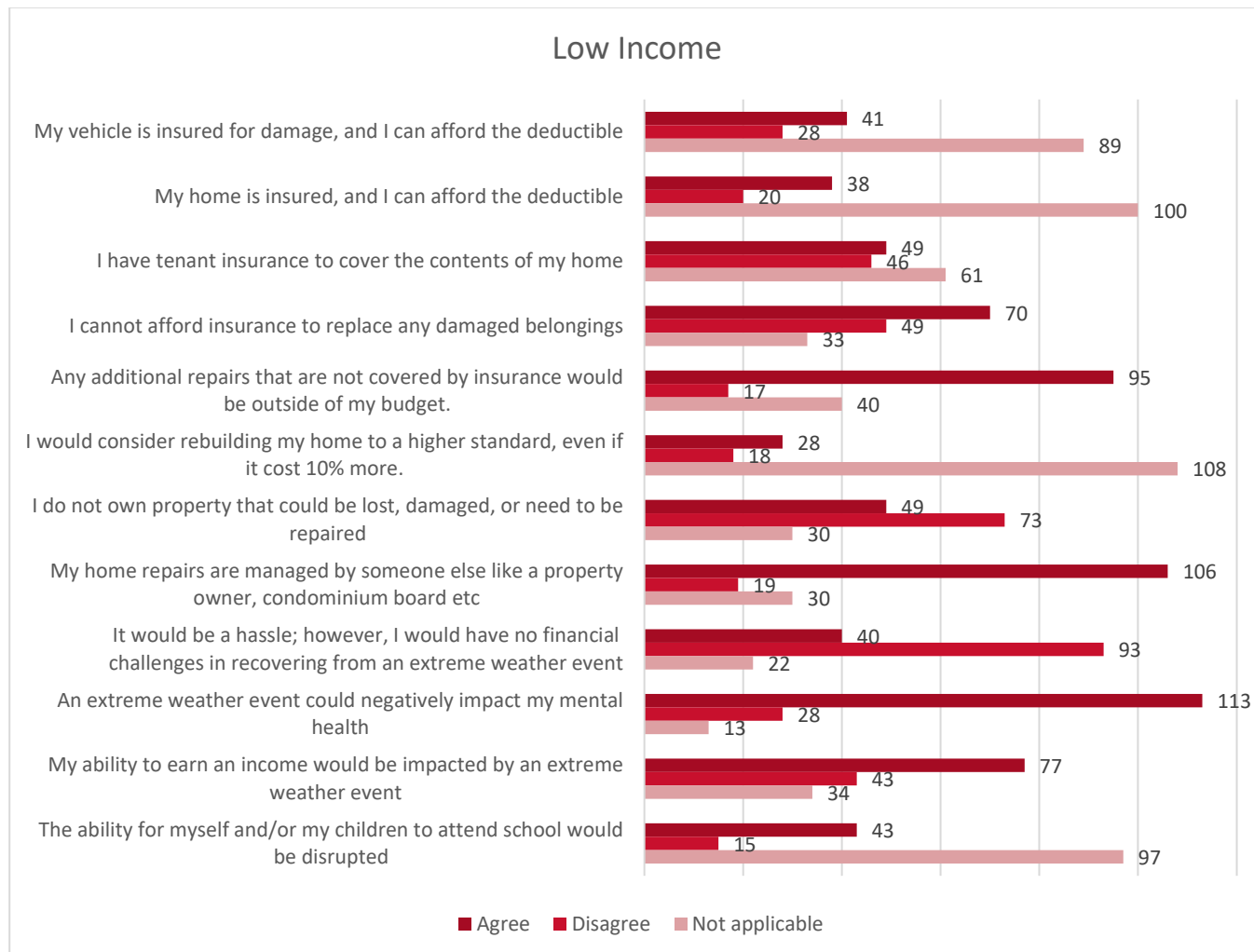


Figure 9- Recovery from Extreme Weather Events- Low Income

Figure 9 outlines how low-income Calgarians rate their ability and capacity to recover from an extreme event. Notable differences for low-income individual, is they report having a much higher agreement to the sentiment that they could lose income due to an extreme weather event,

Positive indication of a capacity to recover from an extreme weather event is shown in the following statements:

- My vehicle is insured for damage, and I can afford the deductible (moderate level of agreement for those who own a car, extremely high occurrence of not applicable)

- My home is insured, and I can afford the deductible (moderate level of agreement for those who own their home, extremely high occurrence of not applicable)
- I would consider rebuilding my home to a higher standard, even if it cost 10% more (moderate level of agreement, extremely high occurrence of not applicable)
- My home repairs are managed by someone else like a property owner, condominium board etc. (extremely high level of agreement)

Negative indication of respondent's capability to recover from an extreme weather event is shown in the following statements:

- I have tenant insurance to cover the contents of my home (nearly equal level of agreement and disagreement)
- I cannot afford insurance to replace any damaged belongings (high level of agreement)
- Any additional repairs that are not covered by insurance would be outside of my budget (extremely high level of agreement)
- My ability to earn an income would be impacted by an extreme weather event (high level of agreement)
- The ability for myself and/or my children to attend school would be disrupted (high level of agreement for those who this applies to, high occurrence of not applicable)

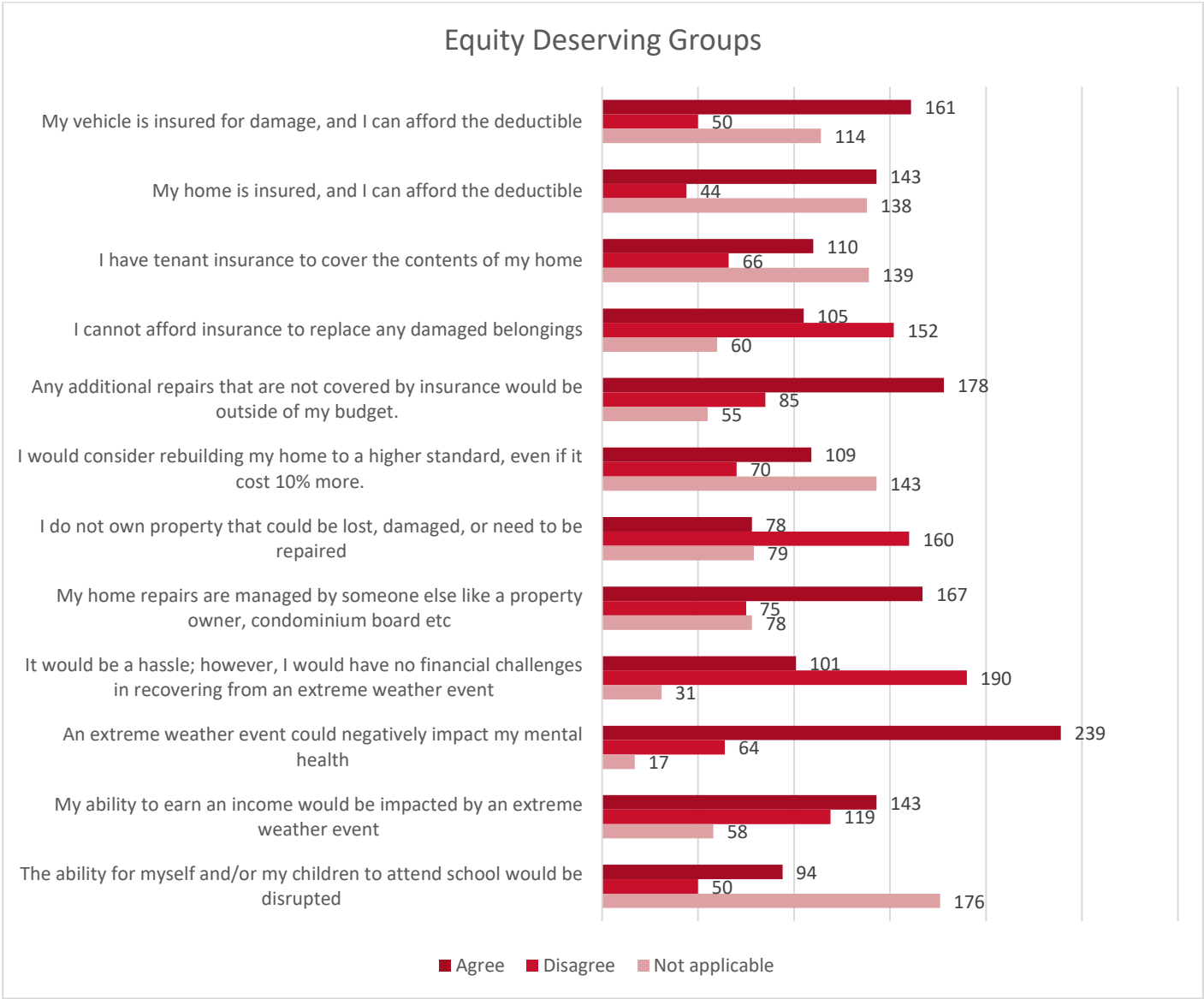


Figure 10- Recovery from Extreme Weather Events - Equity Deserving Groups

Equity Deserving Groups

Figure 10 outlines how equity deserving Calgarians rate their ability and capacity to recover from an extreme event. Like low income Calgarians, the risk of lost income is again high, albeit not as high as the low-income group. In addition, home repairs are the responsibility of someone else, corresponding to those who rent or live in condominium settings. A notable difference compared to low income Calgarians, is that more equity deserving individuals report having tenant insurance.



Positive indication of a capacity to recover from an extreme weather event is shown in the following statements:

- My vehicle is insured for damage, and I can afford the deductible (moderate level of agreement for those who own a car, high occurrence of not applicable)
- My home is insured, and I can afford the deductible (moderate level of agreement for those who own their home, high occurrence of not applicable)
- I have tenant insurance to cover the contents of my home (high level of agreement)
- I cannot afford insurance to replace any damaged belongings (moderate level of disagreement)
- I would consider rebuilding my home to a higher standard, even if it cost 10% more (moderate level of agreement, high occurrence of not applicable)
- My home repairs are managed by someone else like a property owner, condominium board etc (extremely high level of agreement)

Negative indication of respondent's capability to recover from an extreme weather event is shown in the following statements:

- Any additional repairs that are not covered by insurance would be outside of my budget. (high level of agreement)
- My ability to earn an income would be impacted by an extreme weather event (moderate level of agreement)
- The ability for myself and/or my children to attend school would be disrupted (high level of agreement for those who this applies to, high occurrence of not applicable)

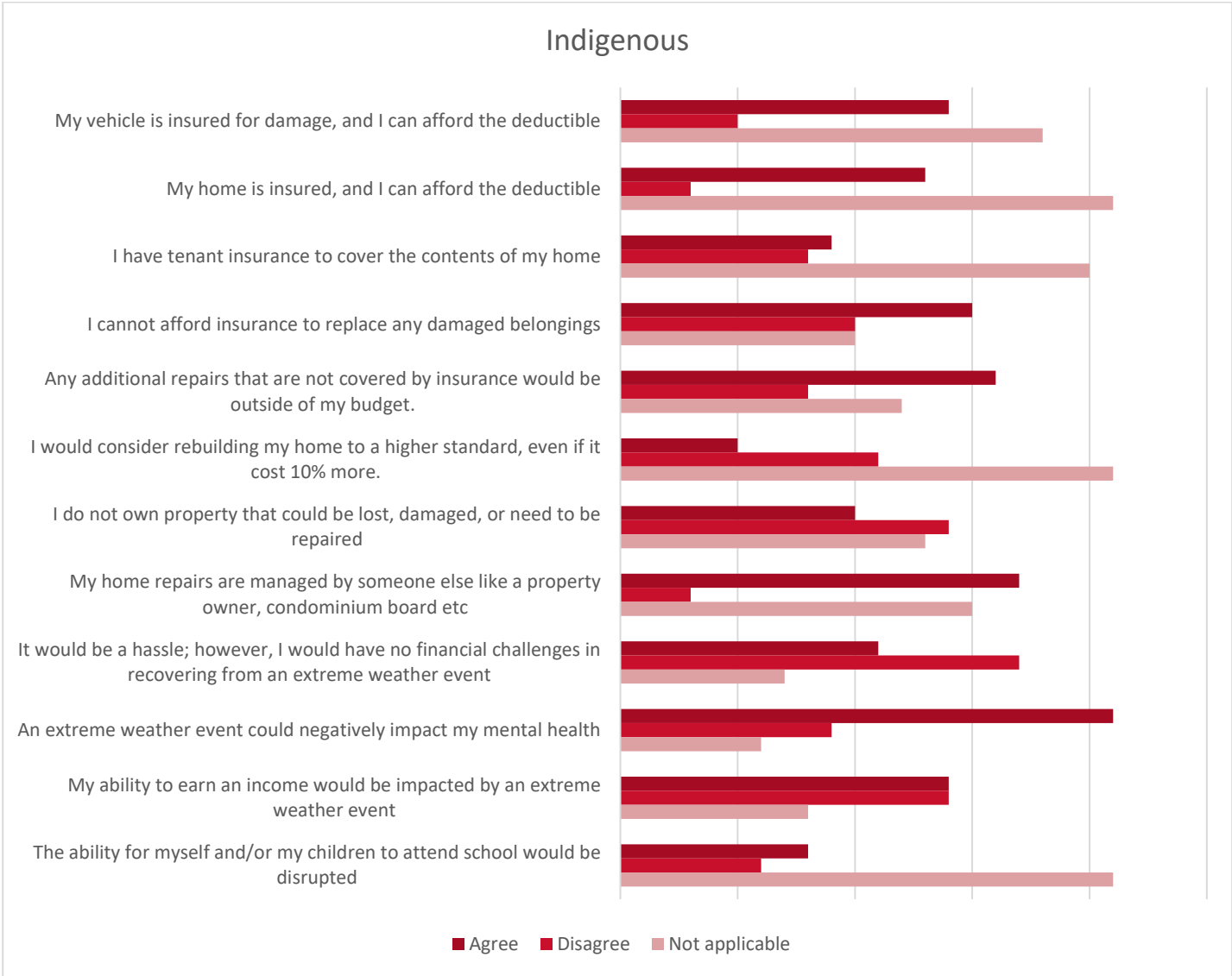


Figure 11- Recovery from Extreme Weather Events - Indigenous

Indigenous Individuals

Figure 11 outlines how Indigenous Individuals rate their ability and capacity to recover from an extreme event. The notable differences for this group of individuals is for those in which it applied, are the only group to say they would not consider rebuilding their damaged home to a higher standard. Their ability to earn an income was also an equally agree and disagree sentiment.



Positive indication of a capacity to recover from an extreme weather event is shown in the following statements:

- My vehicle is insured for damage, and I can afford the deductible (high level of agreement for those who own a car, extremely high occurrence of not applicable)
- My home is insured, and I can afford the deductible (high level of agreement for those who own their home, extremely high occurrence of not applicable)
- I have tenant insurance to cover the contents of my home (nearly equal level of agreement and disagreement, extremely high occurrence of not applicable)
- My home repairs are managed by someone else like a property owner, condominium board etc (extremely high level of agreement, extremely high occurrence of not applicable extremely high occurrence of not applicable)

Negative indication of respondent's capability to recover from an extreme weather event is shown in the following statements:

- I cannot afford insurance to replace any damaged belongings (high level of agreement)
- I would consider rebuilding my home to a higher standard, even if it cost 10% more. (low level of agreement, extremely high occurrence of not applicable)
- Any additional repairs that are not covered by insurance would be outside of my budget (high level of agreement)
- My ability to earn an income would be impacted by an extreme weather event (equal level of agreement and disagreement)
- The ability for myself and/or my children to attend school would be disrupted (moderate level of agreement for those who this applies to, extremely high occurrence of not applicable)

Themes from All Responses

Three themes were connected in how people talked about their personal situations. **Insurance- Good and Limited, Large Repairs/Replacement Challenge** and **Mental Health and Stress** were frequently mentioned together. For these Calgarians, they feel their insurance would help them in recovery of an extreme weather event, but many are unsure of the coverage or know that it is limited. Many said that expenses beyond their deductible would be out of reach. Most commented on the level of stress that this would create in their lives.

- *I am a retired person. We have good insurance (I think). I think we'd be ok financially as long as our insurance covers damage.*
- *We have house and home insurance, however, if we have damages from an extreme weather event in the future, it will be stressful and will take time to repair. There may be additional costs to fix any damages. We should be able to pay for the fixes unless events become very frequent.*

- *The financial impact would be significant, but I would not be left broke. Certainly, losing a car again would be a real blow as the insurance I would receive (as was the case in 2014) will not cover replacement cost. I would probably chose not to replace or fix some things.*
- *While we have insurance, we do not have endless savings to tap into for repairs. And we would love to do more to reduce our footprint but again are limited financially.*
- *We are lucky to be financially stable enough to deal with some of the effects on our property due to extreme weather, but dealing with these impacts is very stressful and time-consuming.*
- *Insurance is not reliable. More often it is impossible to get insurance from extreme events and water damage. It took two years to get a payout as they wanted me to accept a repair that would make my property less resilient. In fact, it took 8 yrs to find someone to properly repair & ↑ resilience.*
- *At some point in the future, I expect insurance to stop offering coverage for certain events in certain risk areas.*
- *I am insured (home and vehicle), though after the cost of deductible it is unlikely that I could afford any repairs not covered by insurance. Vehicle insurance does not cover hail damage.*

Income Limitations and Financial/ Cost of Living

This theme includes sentiments about reduced or limited income (including COVID, retirement, disability) that would impact ability to recover from an extreme weather event and sentiments about current cost of living and the financial burden of recovery.

- *We are retired and live on a fixed income so recovering from the damage of an extreme weather event would be difficult.*
- *Fortunate to have some financial resources for minor to moderate repairs, however the stress would be high due to responsibilities of caring for disabled family member, and supporting a multi-generational family under 1 roof.*
- *I'm now retired, so no income loss. But as I age, I worry about dealing with extreme heat. Condo board repairs roof leaks, basement infrastructure damage due to flood, but then our condo fees increase.*
- *We are seniors on pensions. While we have financial resources for what we anticipated in our retirement unanticipated expenses could be difficult to cover.*
- *Due to covid, our household is lower than it has been in the past and we are stretched and would not be able to cover extra expenses.*
- *My life is impacted more by rising taxes, inflation and carbon tax.*
- *Weather is unlikely to have a material impacts on anything social or psychological. Purely financial.*
- *My monthly housing expenses (mortgage, insurance, taxes, condo fees) are so high that additional climate-driven expenses could have serious economic consequences affecting whether I could retain ownership of my home.*

Will Recover/ Have Required Resources

This theme covers sentiment from those who are confident they can recover, but many also refer to the stress that would accompany the recovery effort.

- *We live outside the mapped floodway and we picked housing that was cheaper than we could have afforded to leave us with extra money to save for unexpected expenses as climate, weather, and economic patterns are not as reliable anymore.*
- *I am very fortunate that I am retired and have a comfortable income. We own our home and can afford repairs and relatively minor renovations if there is damage.*
- *We have some savings, decent credit, and I'm walking distance to work / work from home, which mitigates some of the negative effects of extreme weather events.*

Unaffected and Concern/ Lack of Concern for Others

Similarly, this theme refers to comments where people share that they will be mostly unaffected by extreme weather events entirely, whether because they do not attend school, have children, or live near work or school for example. For some this was then commonly followed by statements of concern for other people and things, or a lack of recognition that these events could impact others differently.

Unaffected:

- *We live close to our school and not in areas with extreme weather events yet*
- *I do not live beyond my means.*
- *I always plan for the rainy days.*
- *Work from home so as long as I am somewhere with wifi I will be able to work now.*
- *No child at home*
- *In 50 years, I have never experienced a weather event that has severely impacted my life. The most has been thunder storms or heavy snow which knock out the power. However this is usually fixed within hours and not a severe impact.*

Concern for Others:

- *I'm in a relatively privileged position, in that I have a good paying job and no debt, no mortgage. However, not everyone is in this position. Climate events disrupt my mental health and I worry about the future.*
- *Retired and financially secure. Concern for others, especially future generations*
- *Concern for the planet, other Calgarians and for their children and future generations in general.*
- *Climate change isn't a light switch that is either on/off. We're seeing hotter summers and colder winters already. We're already affected by severe weather through higher grocery prices, seniors dying. A major wild fire like what happened in Colorado would devastate and disrupt Calgarians.*
- *Children are in post-secondary and no longer live at home, but they would be impacted*



- *depending on the nature of the event there could be a huge impact. My youngest son has had field trips and recess cancelled due to wildfire smoke in the air - this is having a huge impact on kids mental health and physical health.*
- *Most severe weather events are localized (eg. northeast Calgary hail storm). Large scale flooding like 2013 impacts everyone. The pandemic has also enabled society to work from home more so business disruptions could be minimized. Disasters affect the poor the most.*

Lack of Concern/ Empathy:

- *Calgary never closes in an extreme weather event. Born and raised here. Weather does not stop a true Calgarian... bs*
- *I am a born and raised calgarian and am more resilient than to be stopped by weather to attend to certain daily activities.*
- *Weather has been volatile for over 2000 years and the person who is able to be nimble and adapt will survive.*

Minimal Impact and Unsure of Impact

This theme includes sentiments of minimal impact and uncertainty about the impact and recovery involved in a weather event.

- *As I do not live in a flood zone, the effects of meteorology events are limited to me*
- *Whether I would be working online or in-person during an extreme weather event, my ability to access work (either internet or transportation) would likely be affected at minimum. Depending on the event I would likely mentally struggle as well.*
- *Mostly inconvenience. Of course if damage was bad enough it could get expensive but now because of financial ability but because of value.*
- *Whether I would be working online or in-person during an extreme weather event, my ability to access work (either internet or transportation) would likely be affected at minimum. Depending on the event I would likely mentally struggle as well.*
- *I am financially stable. Biggest challenge would not be finances but logistics - if I lose child care how could I deal with the impacts of an event while managing work and part time school.*

Transportation

This theme focuses on comments about how transportation is impacted after an event and can influence the City's collective and individual's ability to recover. Concern for getting school age children to school was common here.

- *The fact that there us no school's being built in new nabourhoods if my car got damaged by a hail storm my kids would have no transportation to school, the yellow school bus us just way to expensive 300-400\$ per child a year.*

- *The most significant complication or disruption to my family's productivity and safety attributable to extreme weather is extreme cold, generally experienced for 2-3 weeks per year. Temperature below -20C poses risks to my home, and makes commuting to work/school moderately to very dangerous.*
- *Sometimes buses don't run in deep snow. City doesn't clear side streets.*
- *Extreme weather does often disrupt transportation and is can be devastating to lives to have to do repairs and transportation.*
- *Snow storms in the winter can make the roads too dangerous to drive on.*
- *Mainly impact daily routine and access to school/work if transportation/roads affected*

Dependant on the Event

This theme shares the common frustration from those who shared that they struggled to answer the questions as their answer was very dependant of the type of weather event.

- *How would you get there? Are schools still open? This question needs more information. Did the hypothetical weather event impact roads, transits, or damage schools?*
- *My wife and I are currently employed and make a nice living. Based on past events and where we live, I don't believe an extreme weather event could completely up end our lives. However, a huge wildfire that burned much of the city or impacted water supply could.*
- *Some depends on the duration, how long the power is out and air quality/temperatures and thus my ability to get supplies.*
- *Would very much depend on the nature of the extreme event. All would have varying degrees of impact both financially and mentally*
- *These questions are a bit silly, especially the last one, the answer entirely depends on what type of event it was.*
- *Abstract Speculation is a poor way to from policy. None of the above can have concrete answers due to the vast difference in potential events caused by Mother Nature (not calgarians)*

Criticism of Process and Government

This theme includes comments that are unsupportive of the engagement process and of the government. This specific question drew a high amount of criticism.

- *Please quit wasting our tax dollars on this. Quit raising my tax dollars. Charge people more for throwing out more garbage and wasting water. Don't spend time researching how we can fix climate change in Calgary. Put in subsidies for allowing grey water collecting and use.*
- *Not sure why you are prioritizing extreme weather events. Drought could severely damage the ag sector and create rationing in the city. This is not about helping families and stuff, the city needs to be about addressing the root causes and building up supports and plan B and plan C for disasters.*
- *All of these questions point to issues that are outside of the scope of the city counsel mandate*
- *I am not worried about a weather event. Let's concentrate on getting people back to work and not have 10 idle people on every job the city does.*



- *There is a need for an upstream reservoir along the Bow. This will help protect from floods and drought. I think it should be a major priority...yet it's been 10 years since the last flood and Governments are dragging their heels.*
- *The questions are misleading.*
- *These seem like extreme/inflated questions. Are you expecting a hurricane?*
- *Your questions are useless. It is driving the point that extreme weather events affect people. No one argues that. I feel you are just trying to influence a survey to have people agree with you.*
- *This is a waste of my time. You aren't addressing anything here!*

Denial of Climate Science

This is a collection of sentiments that do not support the climate science and similarly a lack of support for City climate action.

- *There is no climate emergency in Calgary.*
- *We live in Calgary, it's located in Canada(a Northern Country) next to the Mountains, because of this fact, the weather changes a lot..*
- *You're are making people guess and directing them to answer negatively/buy in the Nenshi 2.0 climate emergency nonsense. Stop the nonsense, start supporting oil and gas. No need to higher 18 people - waste of money. All this = higher taxes and higher cost of living .*
- *The City can not change the weather. You are simply wasting money to pat yourself on the back while accomplishing nothing. Consider losing at the science of how climate works.*
- *Studies by experts show that extreme weather events are no more prevalent now than they have been in the past.*
- *Again all life on earth must adapt to survive weather events and climate change that is natural and occurred for billions of year*

The last few themes from these questions were small and include **Recovery Based on External Factors, Building materials and Labour, and Recent Examples of Recovery.**

- *We already experienced this and these answers reflect not only my projection of future experiences but also my lived experience.*
- *I just went through the pipes bursting in my home and water came in from my vent and down 3 floors. Everything has to be cleaned and tested properly.*
- *The main issue with repairs post extreme weather events is being able to secure both the labor & materials required to affect necessary repairs in a timely manner. Depending on the nature of the event access to the building site might be compromised.*
- *we are seniors and we rent an apartment with good managers who take care of issues*



Themes from Low Income Individuals

Many themes were not mentioned once by low income Calgarians. These include **Building materials and Labour, Criticism of Process and Government, Denial of Climate Science, Dependant on the Event, and Recent Examples of Recovery.**

The themes that have very few mentions were **Financial/ Cost of Living, Will Recover/ Have Required Resources, Recovery Based on External Factors, Concern/ Lack of Concern for Others, Minimal Impact and Unsure of Impact, Unaffected, and Transportation.**

The most common themes with the highest number of mentions for Low Income Calgarians were **Mental Health and Stress, Income Limitations, Insurance- Good and Limited, and Large Repairs/Replacement Challenge.**

- *Insurance is not reliable. More often it is impossible to get insurance from extreme events and water damage. It took two years to get a payout as they wanted me to accept a repair that would make my property less resilient. In fact, it took 8 yrs to find someone to properly repair & ↑ resilience.*
- *I am a student and I don't think I will survive it good . I have climate anxiety .*
- *I don't own my property and I live on a hillside but I do have an uncovered parking space. I make only 16\$ an hour*
- *We have 2 vehicles and one is not insured for damage, I'm not sure our home insurance would cover all kinds of damage*
- *Single mom. Can only seem to find part time job. I'm barely making meets end. Prices b food are going up*
- *The air quality problems caused by wildfires and the heat of the last two summers have made it hard for my family to go outdoors which has negatively affected our mental health.*

Themes from Equity Deserving Groups

Of the equity deserving groups, some themes were rarely mentioned. These include **Building materials and Labour, Criticism of Process and Government, Denial of Climate Science, Dependant on the Event and Concern/ Lack of Concern for Others.**

Equity deserving Calgarians made up about half of the responses from the following themes: **Large Repairs/Replacement Challenge, Mental Health and Stress, Insurance- Good and Limited, Financial/ Cost of Living, Will Recover/ Have Required Resources and Unaffected.**

The themes that were predominantly from equity deserving Calgarians were:

Income Limitations, Transportation, Minimal Impact and Unsure of Impact, Recovery Based on External Factors, Recent Examples of Recovery.

- *I do not own property. I am a renter, but the cost of rent is more expensive than it was when I moved to Calgary. I also have pets, which limits my ability to find a place. Extreme weather could damage property that I rent and force my family out, which would hurt us.*
- *Currently a renter, working and going to school simultaneously. I have enough in the bank to cover personal emergencies but probably not enough to cover a catastrophe.*
- *Insurance covers only so much. Insurance premiums need to be more affordable.*
- *I'm unsure what a situation would be like where an extreme weather event affects my place of residence since I'm a renter. However, it's still a concern that it could financially impact me and my mental health as well. Climate change in general creates anxiety for me.*
- *I rent a unit in a condo building and have tenants insurance that cover my belongings up to a certain level. This is only applicable in certain disasters/weather events. Does not cover things like flooding. It does not cover the cost of relocating during or after an event.*

Themes from Indigenous Individuals

Indigenous individuals did not mention the following themes: ***Building materials and Labour, Recent Examples of Recovery, Mental Health and Stress, Concern/ Lack of Concern for Others, and Dependant on the Event.***

A low volume of responses hit a variety of themes in incredibly small number, including ***Income Limitations, Large Repairs/Replacement Challenge, Unaffected, Financial/ Cost of Living, Recovery Based on Others, Denial and Criticism of Process and Government.***

- *I am on AISH and cannot work because of an accident that happened when I was younger and because of the bad weather.*
- *It takes me time to buy the items in my life. Every year little by little if I lost it all because of weather that I would not be able to get it back without my tenant insurance.*
- *At no point in 44 years of life have I been impacted significantly by an "extreme weather event".*
- *Do not attend school.*
- *Condos are not cut and dry as we are responsible for damaged done to other units if we are at fault so the question if someone else is responsible is debatable as well our condo fees go up to address costs as we have not as much control a private landlord for the contractor.*
- *"Extreme" weather events are not a threat*
- *All of these questions point to issues that are outside of the scope of the city counsel mandate*

Agencies

Agencies were also asked about their client's biggest challenge in managing during an extreme weather event.

What has been your client's biggest challenges in staying safe/managing during an extreme weather event such as extreme heat, hail, flooding, or smoke due to wildfire? (Select all that apply) (Q-7)

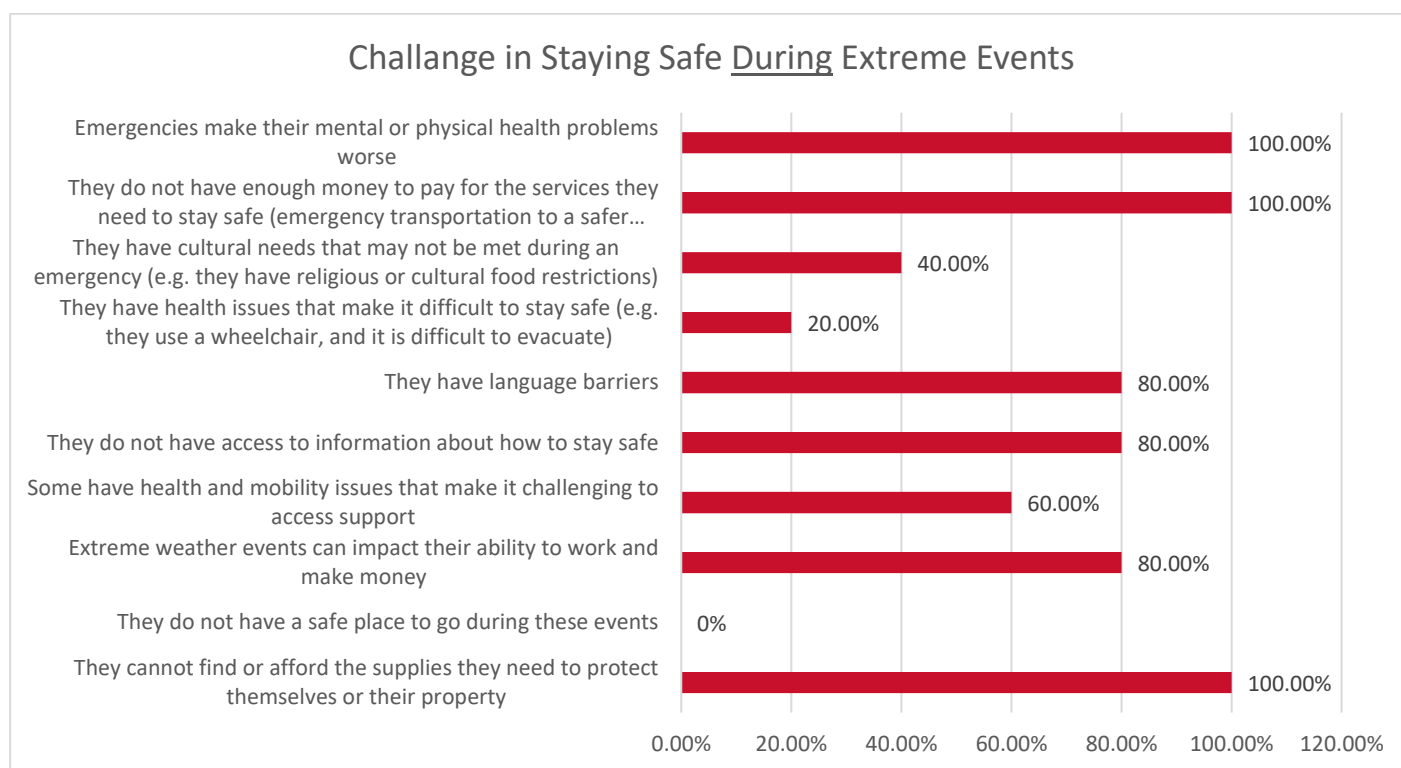


Figure 12- Agency Assessment of Challenges During Event

Figure 12 outlines that agencies and community organizations believe that the biggest challenges for their clients in staying safe during an extreme weather event include issues of **financial means** and **mental health**, including:

- They cannot find or afford the supplies they need to protect themselves or their property
- They do not have enough money to pay for the services they need to stay safe (emergency transportation to a safer location, additional utility costs in extreme heat or cold)
- Emergencies make their mental or physical health problems worse

Agencies ranked the following challenges of **accessibility and lost income** as the next most impactful for their clients:

- Extreme weather events can impact their ability to work and make money



- They have language barriers
- They do not have access to information about how to stay safe
- Some have health and mobility issues that make it challenging to access support

When asked to explain further, they shared the following verbatim statements:

- The high implications of stress on **mental health long after the actual emergency** and **navigating recovery efforts**.
- **Sheltering in community spaces** is often very **unsafe** because it is open to the public.

Agencies were also asked about their perception of their client's ability to recover from severe weather events.

To what extent do you agree or disagree with the statements below that describe your client's ability to recover from the impacts of an extreme weather event such as home repairs, vehicle repairs/replacements, mental health, and/or employment disruption?

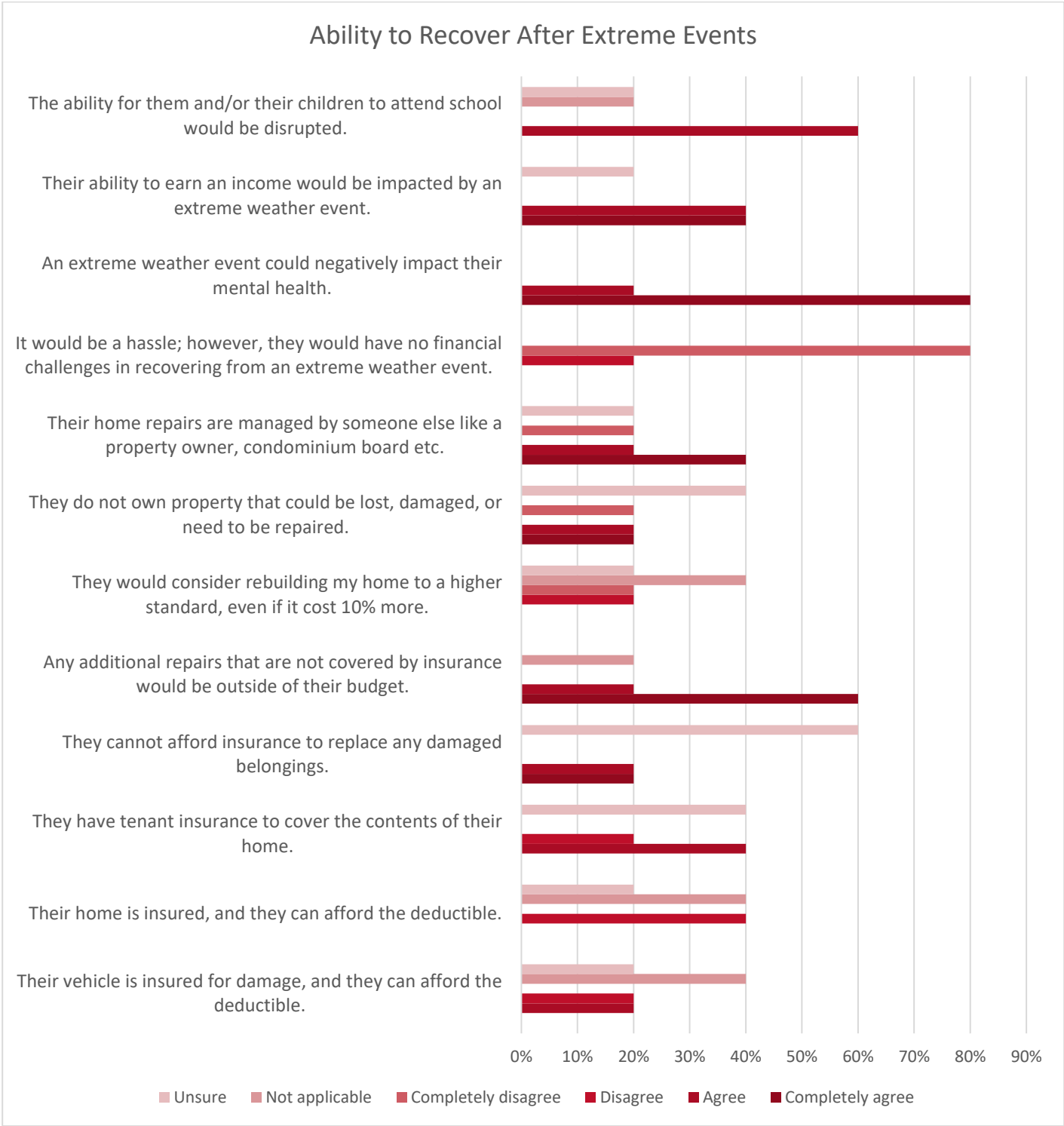


Figure 13- Agency Assessment of Client's Ability to Recover After Event



Agencies shared positive indication of their client's ability to recover including:

- Their vehicle is insured for damage, and they can afford the deductible. (mostly not applicable)
- Their home is insured, and they can afford the deductible. (agree or not applicable)
- They have tenant insurance to cover the contents of their home (mostly agree)

Negative indication of capacity to recover:

- They cannot afford insurance to replace any damaged belongings. (mostly unsure)
- Any additional repairs that are not covered by insurance would be outside of their budget. (mostly agree)
- It would be a hassle; however, they would have no financial challenges in recovering from an extreme weather event. (mostly disagree)
- An extreme weather event could negatively impact their mental health. (mostly agree)
- Their ability to earn an income would be impacted by an extreme weather event.
- The ability for them and/or their children to attend school would be disrupted.

Neutral indication of client's ability to recover are:

- They would consider rebuilding my home to a higher standard, even if it cost 10% more. (mostly not applicable)
- They do not own property that could be lost, damaged, or need to be repaired (mostly unsure)
- Their home repairs are managed by someone else like a property owner, condominium board etc. (mostly agree)

When asked to explain further, they shared the following verbatim statements:

- 1/3 of **our clients live in residences that we manage** or we support them in managing their accommodation is residences managed by others. Those clients, while potentially impacted by extreme weather conditions **have a team of people helping them through their challenges**. 2/3 of our clients are non-residential and access our services for things other than housing. Their **living conditions are more precarious** and would not have the same access to support.
- There is a typo on line 6. I think you mean to say: "They would consider rebuilding THEIR home to a higher standard, even if it cost 10% more." (not "my home")
- Insurance question: depends on if there are **multiple claims**. If it is just the vehicle, then it is not as challenging as claims to multiple items.
- We serve a wide variety of clients. Most do not own their home or a vehicle. Most are low income, so would have **difficulty absorbing any necessary additional costs** related to an emergency/extreme weather event.
- Our clients are **very low income**. They have **next to no emergency funds** to draw from in emergency situations. **If they need to pay for an emergency, that usually means not paying bills or buying groceries.**



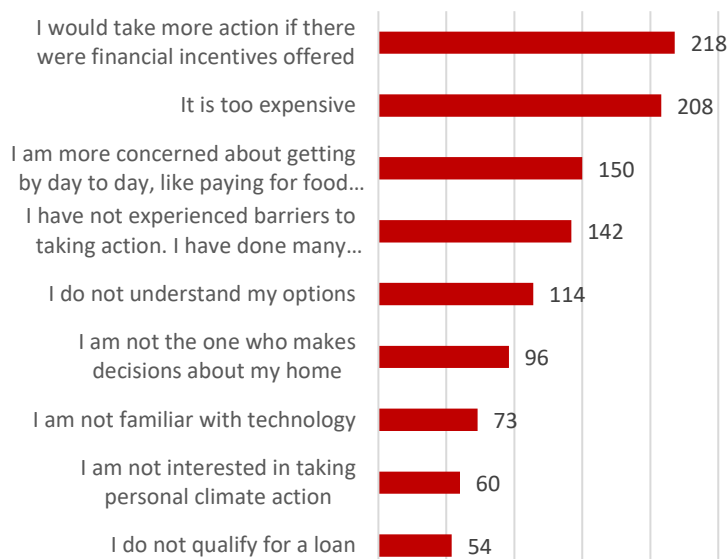
Considerations for the Climate Strategy and Action Plan Update

Many Calgarians report having a high capacity to recover from severe weather events. Although, even with sufficient insurance in place, many feel that expenses beyond their insurance deductible would be out of reach and would limit their ability to recover.

One of the clear messages from respondents, however, was that it would be completely dependent on the event itself. When compared to the events that respondents ranked as the riskiest, one could conclude that some Calgarians have limited knowledge of how each event could impact them, and therefore they may not be able to comment on their capacity to recover. Effectively, you do not know, what you do not know. This lack of understanding about the climate related risks and what they could mean for them personally, could lead to people being unprepared. There is also a lack of recognition from some Calgarians that climate impacts would be felt inequitably.

Theme Area #4- Barriers to Climate Action

All Responses



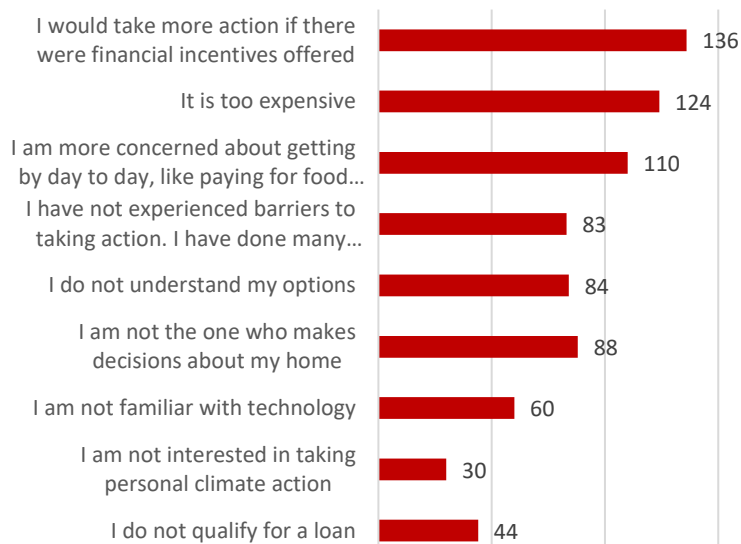
A- Barriers to Climate Action- All Responses

Low Income



B- Barriers to Climate Action - Low Income

Equity Deserving Groups



C- Barriers to Climate Action - Equity Deserving

Indigenous



D- Barriers to Climate Action - Indigenous

Figure 14- Personal Barriers to Climate Action



Figure Summary

Figure 14 (A-D) above outlines what we heard from Calgarians when asked the question:

Question: What challenges do you face when it comes to taking climate action in your personal life? Please select all that apply. (Q6)

For all population groups, the common barrier is cost, and all groups reported being more concerned about getting by day by day. The lowest reported barriers for all groups, was an interest in participating in climate action and not qualifying for a loan.

All Responses

Figure 14-A shows the barriers that all respondents shared were most applicable to them. In descending order of applicability, they are:

- I would take more action if there were financial incentives offered
- It is too expensive
- I am more concerned about getting by day to day, like paying for food and rent
- I have not experienced barriers to taking action. I have done many of these actions already
- I do not understand my options
- I am not the one who makes decisions about my home
- I am not familiar with technology
- I am not interested in taking personal climate action
- I do not qualify for a loan

Low Income, Equity Deserving Groups and Indigenous

The notable differences for these population groups (Figure 14 B-D) were the higher incidence of not being the one who makes decisions about the home and not understanding options and available technology.

Themes

Respondents were given an opportunity to share other barriers that they experience, that were not listed in the question. Many other barriers were shared, as summarized in the following.

Standard of Building, Codes and Trades Barriers

- *Most tradesmen do not know how to do something different. And most steer the conversation and options to the 'same old' and what they know best (same old/what they sell).*
- *The current building code means that a number of the climate action adaptations are on the individual owner/tenant. Extra money put into these actions are not adequately reflected in home valuations*
- *Higher building standards and easy to understand guides on city website how to follow them*

- *For example, can the City influence building codes so that homeowners are able to reconfigure their plumbing to use grey water for watering outside plants, for example?*
- *Trades are not educated about net-zero and passive construction. Building codes don't go far enough.*
- *We are taking action to improve our home but have encountered some issue with contractors not familiar with technology (heat pump, electric water heater, etc)*

City Bylaw and Regulation Barriers

- *To allow us to have wood burning stove, wood fireplaces, collection of rain water to filter, to have solar panel on all homes in Calgary more renewal able resources as well to have eco garden for all homes (permaculture)*
- *some limitations with city regulations impair greening my home*
- *Policies and land use planning incentivizes automobile use.*

Influence of Others and Social Norm Barriers

- *I was actively involved in trying to get a barrier up in Bowness, but myself and science lost to the political influence of riverfront property owners.*
- *I am afraid of being attacked by people who see these things as a personal attack against them and our oil and gas heritage. I wish we could change that conversation. I look at our "town fathers", and I wonder, 'are you going to hate me for wanting this?'*
- *Calgary is known as a oil and gas town. Will my neighbours be angry if I buy an electric vehicle or put solar on my roof?*
- *Neighbours and fellow citizens who frown on electric vehicle ownership. Try to make it "not cool" so that the average "follower" delays taking personal climate action.*

Active, Public and Efficient Transportation Barriers

- *Calgary is a city that is designed and built around people having a car. More frequent transit and better cycling infrastructure would allow me to leave my car at home and start to lower my level of carbon emissions.*
- *Need more safe and separated cycling infrastructure*
- *It is inconvenient, slow, and weather prohibitive to bike or transit take action like alternative transportation*
- *Calgary NEEDS to clean up transit, the train systems are disgusting and it repels people who then chose the drive because it is far safer and you aren't surrounded by urine and drug addicts.*

Structural Barriers on Home and Communities

- *Solar heating not an option for the design of our home. Heat pumps not useful when electricity supply is generated by coal or even gas.*

- *Some items too difficult to retrofit in older home.*
- *ROI on some actions is very poor if not negative, due to home age and location (heavily shaded)*
- *The cost of installing 200amp service is very high for communities with underground 100amp service and is a major barrier to electrification for us*

Associated Negative Impacts of Action

- *Many high efficiency options are in their infancy, and therefore provide little improvement at a great cost. Little improvements at little-to-no cost are effective and easy to implement.*
- *At times we have opted to wait until our appliances or furnace have broken down and can't easily be repaired on the basis that throwing out something and buying new is also ecologically unsound.*
- *Many solar panels contain toxic chemicals such as cadmium telluride which is among the most toxic chemicals know to mankind. There is no disposal ground or recycling plan to deal with items such as solar panels when they need to be replaced.*
- *The so called green options are not as green as they are made out to be.*
- *Stop the insanity!! Cda. is 1.6% of contribution world wide. Spending billions in YYC will do zero to change that number. So don't spend. Let the changes happen naturally.*

Personal Action has Minimal Benefit

- *Personal action does not solve systemic problems; systemic problems need systemic solutions / powerful stakeholders, with disproportionate influence, resist things like urban densification, free housing and public transit, etc.*
- *My personal actions only go so far - the construction industry (among others) are well financed actors who keep pushing unsustainable development (low density suburbs)*
- *Stop putting the responsibility on the individual.*
- *Canada is only about 3% of GLOBAL climate change. There is no way I can impact climate change in a grand scale where any efforts I do are so miniscule.*
- *It's more it feels there's only so much I can do sometimes before like the responsibility is on industry and law makers to make the necessary changes*
- *Given that the oil and gas industry is one of the main polluters, I disagree that only everyday people should take personal climate action.*
- *Doesn't seem like personal choice can save us. We need systemic change which requires bold leadership*

Others are to Blame

- *This is a global issue. Until China and India take steps, we are reducing the quality of life of Canadians/Calgarians by implementing climate action.*
- *What is the point of a city of one million reducing their impact, while China, India, Russia continue to build coal fired power plants, use high emission vehicles and have minimal restrictions on industrial pollution?*

- *I feel companies should be required to bear the majority of the burden*
- *Canada is a net-negative carbon country.*
- *Oil corporations are actively causing climate change and profiting off of it. Nothing will be solved while they continue to operate.*
- *I do what I can in my daily life but the majority of GHG emissions come from industry. More regulations should be put into place and enforced for industry. Climate change should not be put on the shoulders of individuals.*

Respondents also provided further comments and insight into the barriers listed in the question. The next section highlights some of the sentiment around each common barrier.

Barrier #1- I would take more action if there were financial incentives offered

- *Condos have zero incentive do any green upgrades. I would love to see requires upgrades and grants or loans*
- *I see the need for incentive programs. My family of three downsized to a 620 sq-ft home in a building with no car infrastructure whatsoever. We use bikes and transit to get around Calgary. Gov subsidy or encouragement can propel others to similar choice.*
- *I have already taken action to upgrade my house to reduce its energy consumption. I would be willing to take more action, but am not clear about the most cost-effective options. For things like installing solar, some financial incentives would help.*
- *We have already installed a small solar system and would like to expand it, but government rate structure is a disincentive. Could the City forego the "Local Access Fee" for new solar installs for a period of time (5 years) to incentivize investment?*
- *I have 38 solar panels on my house and have minimal reduction in costs due to "admin" fees. There is little incentive in place. I would do geothermal and passive house if incentives were in place.*

Barrier #2- It is too expensive

- *Have done minor things like land management(trees, soil, garden, compost ect), insulation enhancement, in home energy management, short haul bike commute, diet but the big impact items like elector electric cars, solar panels, heat pumps are too expensive*
- *I would look at solar assist for my house and buying an electric vehicle if the costs weren't so prohibitive.*
- *On very limited income. Substantive improvements are costly, technical developments are nuanced and complicated.*
- *Solar panels are expensive and there is no clear, simple way to install and hook into the grid. Electric/hybrid vehicles are expensive - we are considering changing over but cost is a factor.*
- *Cost of living continues to rise as salaries stagnate.*
- *Many of the climate actions listed are too expensive.*
- *it seems as thou the wealthy are the only ones who can do things*

Barrier #3- I am more concerned about getting by day to day, like paying for food and rent

- *I am more worried about my current health problems.*
- *Weather causes me stress some days if I am trying to get tasks done. I feel I am more worried about keeping my bills paid.*
- *For my family with two children under 2, it is more about financial impacts to upgrading home & vehicles and getting by day to day. Not necessarily from a \$ standpoint but just availability of time. Home improvement takes time and we have little to spare*
- *I'm a low income Calgarian in property-managed housing I can't even afford their usual special assessments*
- *time to do the research and make a plan (between jobs, kids and basic responsibilities).*
- *I am a single Parent. but make \$70k a year by working 60 hours a week to keep a roof over my head and my sons.*

Barrier #4- I have not experienced barriers to taking action. I have done many of these actions already

- *I built an energy efficient home to save the planet and to save expenses.*
- *I am a fairly well-off Calgarian, and I have invested some money in personal climate action, but my household simply cannot afford to do everything, and many other Calgarians are less well-off than me. We can achieve more as a collective than alone.*
- *Aside from generally using less and not driving when possible, I'm not sure what else to do that actually matters.*

Barrier #5- I do not understand my options and I am not familiar with technology

- *I do as much as I can, but I know that I can do more. I would like to own an EV, but cannot afford one. I would like to travel more by public transit, but it is not efficient enough. I'd like to upgrade my home, but I'm unsure of incentives*
- *I try to take action. I would like to know more about options not just for homeowners, but low income Calgarians.*
- *My problems, with the privilege I have to have the wealth I do, are having the time and energy to figure out to approach things, what the programs are, how to access them, etc.*
- *Having more sessions available to make a clear understanding on how I can be helpful to any plans the City has around weather and I would maybe decide differently.*

Barrier #6- I am not the one who makes decisions about my home

- *When you don't own property, you don't have a say in how it is heated, maintained, and repaired. Accessible housing needs to be built to climate standards.*
- *As a renter, many of the suggested actions involve modifying structures/systems within the home that I do not have permission to do. Still, having access to this climate actions list is helpful for the actions I wasn't aware of and if/when I own a home.*

- I have taken some action with what I'm able to do (ex. hang drying clothes, cold water laundry, composting) but some things I don't have control over in my residence since I'm a renter. I also live in a condo building that has a board that makes decisions*
- I live in a condo, and some of the climate change actions I would personally take are not condo board priorities, or too expensive for the majority of owners.*

Barrier #7- I am not interested in taking personal climate action

- Have not experienced any odd weather being a born and bread Calgarian*
- I've done nothing and dont give a rats [removed] about climate change idiocy.*
- It is something that I choose not to embrace*
- We are not experiencing a climate emergency-especially in Calgary!*

Barrier #8- I do not qualify for a loan

There were no comments about this barrier.

Agencies

Question: What barriers do your clients experience in taking personal climate action? A list of some climate action is listed [here](#). Please select all that apply. (Q10)

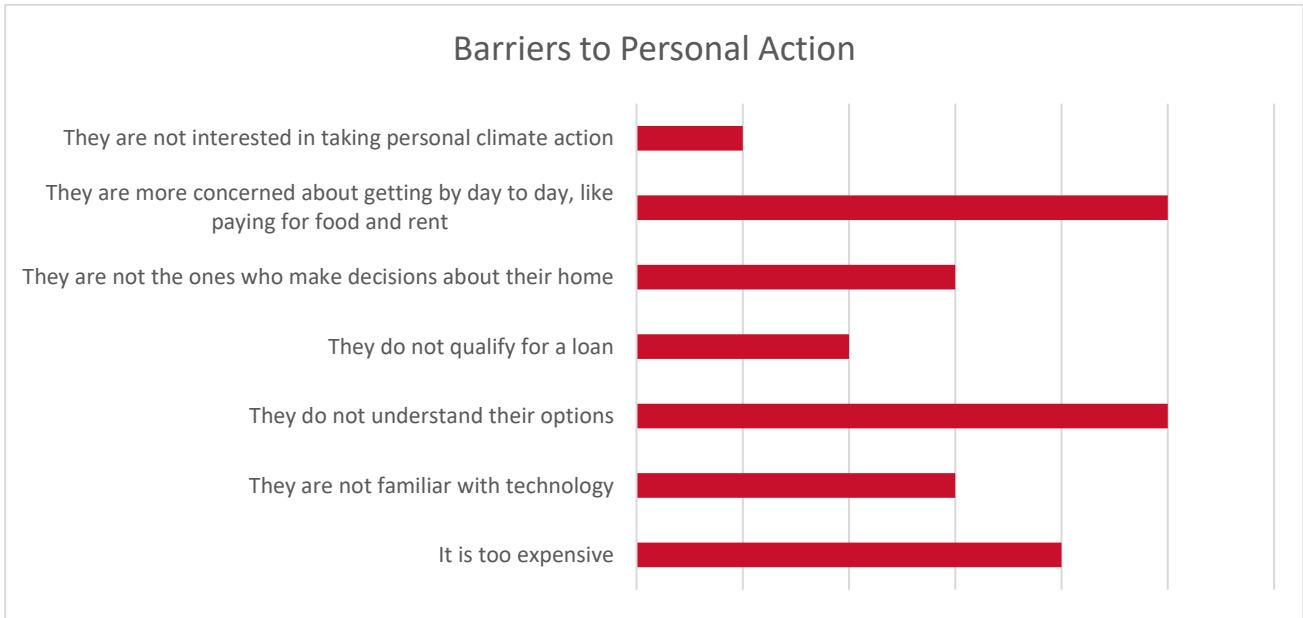


Figure 15- Agency Assessment of Client Barriers to Personal Action

Agencies shared their client's biggest barriers to climate action, in order of largest to smallest barrier:

- They are more concerned about getting by day to day, like paying for food and rent
- They do not understand their options
- It is too expensive
- They are not familiar with technology
- They are not the ones who make decisions about their home
- They do not qualify for a loan
- They are not interested in taking personal climate action

When given the opportunity to expand on the options presented, one respondent shared:

- *BVC [Bow Valley College] students are definitely **concerned about climate** (from a 2020 learner survey, we found that 85% of students are concerned about climate, which is higher than the national average). However, **BVC students tend not to understand what their role is in climate action**, as many of the encouraged **actions are outside their control**. For example, many students are not Canadian citizens so **cannot vote**, or **do not own their home** so cannot make upgrades*

Considerations for the Climate Strategy and Action Plan Update

All Calgarians share the same major barrier to taking climate action - cost. Closely following this barrier is people having different priorities, whether that be just getting by day to day, finances going to pay bills over upgrades, or not having the time to act. To overcome this, the benefit of action needs to be personally relevant and attractive enough to overcome overriding values and priorities.

For some, this may mean just simply making it more affordable through meaningful incentives. For others, this will mean making it as easy as possible to make changes, including having accessible and easily understood information, bylaws and regulation that do not hinder action they are willing to take, and having options and programs available for everyone. These options, and how to participate in them, need to be well communicated. It needs to be easy and not introduce more barriers.

Others will need much more information to convince them of taking any action. This will include data on return on investments, and how their action contributes to collective benefits. Many Calgarians want to understand the justification for being asked to act - both on an individual level, but also at all levels of government. These Calgarians will need to clearly see the benefit of action as part of the big global picture.

Theme Area #5- Resources and Support

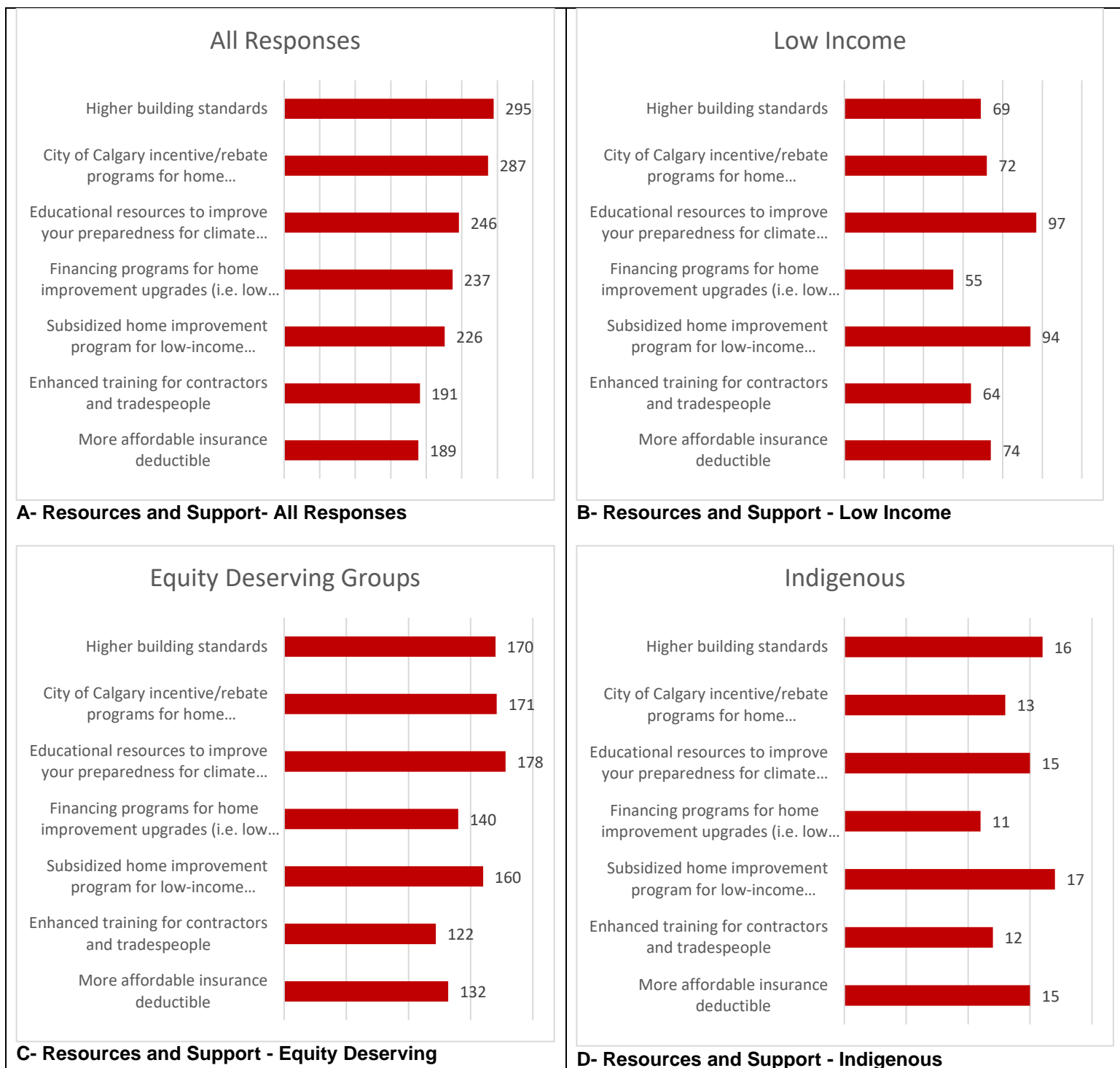


Figure 16- Resources and Support



Figure Summary

Figure 16 (A-D) above outlines what we heard from Calgarians when asked the question:

What support or resources would you find helpful to proactively reduce the impact of extreme weather events on you and/or your home? Select all that apply and please explain. (Q4)

All Responses

Figure 16-A outlines what all Calgarians shared. In order of what resources and support would provide the most support to the lowest support, Calgarians said:

- Higher building standards
- City of Calgary incentive/rebate programs for home improvement upgrades (such as City Resilient Roof Rebate Program)
- Educational resources to improve your preparedness for climate impacts
- Financing programs for home improvement upgrades (i.e. low interest loans)
- Subsidized home improvement program for low-income Calgarians
- Enhanced training for contractors and tradespeople
- More affordable insurance deductible

Low Income

Low-income individuals had different priorities for what resources and support would be helpful (Figure 16-B). Education to improve preparedness and subsidized home improvement programs for low income Calgarians ranked the highest. More affordable insurance deductible, and City of Calgary incentives were the next most popular choices, closely followed by higher building standards and enhanced training for trades and contractors. Financing programs was the least mentioned resource.

Equity Deserving Groups

For equity deserving groups in Calgary (Figure 16-C), education was the top ranked resource, closely followed by City of Calgary incentives, and higher building standards. Subsidized home improvement programs for low income were not far behind. Financing, affordable insurance deductible, and enhanced training for trades and contractors were the least mentioned resources.

Indigenous

Figure 16-D shows that Indigenous individuals said that subsidized home improvement programs, higher building standards, education, and more affordable insurance would be most helpful. Incentives, training for trades and contractors and financing were the least mentioned.

Themes

The following section outlines the themes that emerged when respondents were asked to suggest other resources and support they would find helpful and the reasons why. The first section focuses on sentiments for each option provided in the question. The last section includes additional resources that Calgarians feel would be useful.

Support #1- Higher Building Standards and Enhanced Training for Contractors

These two options were connected when people shared about this topic. For many, contractors and trades go hand in hand with building standards and drew sentiments about improving buildings and how they are constructed. Many people mentioned the need for net-zero buildings, updating building code and standards to require impact reduction considerations, consistent building inspection processes, permits, enforcement, and training for trades. The need for improved ventilation standards was also mentioned here.

Building Codes and Standards:

- *how we build buildings is the most important thing - new buildings have to have the highest standards and have to be net zero*
- *A significant reduction of emissions, allowing only resilient and zero emission buildings /homes to be built, more vegetation to reduce urban heat and water run off*
- *All new buildings in our City should be energy efficient, off the grid. We need to prevent further calamities.*
- *City to have stricter guidelines for new builds, encourage solar panels, ensure solar panels is protected from other new builds. encourage natural grass boulevards, for every tree displaced, must add two new trees*
- *Waste Heat Recovery pipes should be a required part of building code for new builds going forward.*
- *Consider why there isn't a market for "higher building standards" because people would rather have a home that they can afford to buy than not have one at all.*

Materials:

- *We need more weatherproof building materials, but not at a high premium. Building standards that don't allow cheap quality materials may help lower the cost of more durable materials by eliminating the market for the low quality goods*
- *Stop using vinyl siding on homes. It is useless in hail.*

Inspections/Enforcement/Training:

- *Consistent building inspection processes, enforcement, training for trades*
- *Quality, reliable and timely building inspections by qualified inspectors*
- *do not build in high risk areas and/or have stronger enforcement of standards*



Ventilation:

- *Also HVAC standards to address air pollution (double bonus for airborne pathogen control!)*

Why Calgarians think it is important:

- *Since home builders always look for the cheapest ways to build houses and employ a lot of very unskilled people, it is no surprise that houses are almost always built to a minimum standard with the cheapest materials and labour costs*
- *It's important that houses are properly built and built to standards that recognize the impact of extreme climate events. This will be more and more common. Our tradespeople and building codes need to catch up.*
- *Tradesmen often do what's convenient or less expensive for them rather than considering other options such as upgraded insulation, more fire resistant siding, triple glazed windows. Our knowing the options and their relative costs and effect would help.*
- *In addition buildings should not be disposable, they should be built to last. The current high rises are built to fail in 40 years. The materials to rebuild after 40 years is a climate burden for planet earth.*
- *Not a fan of incentives or rebates as they tend to go to wealthier people who can already afford the reno (like me) and would do it anyways. Better to demand higher standards from builders from the start*

Support #2- City of Calgary incentive/rebate programs for home improvement upgrades (such as City Resilient Roof Rebate Program)

This option was the most mentioned and comments focused on ways that people feel they could be incentivized to spend money on their home upgrades. Many people feel that rebates on specific items like solar, roofing, insulation, landscaping, and other materials would be helpful. Other incentives could include bonuses, like reduction of charges on utility bills and things like free parking for electric vehicles.

- *Subsidies or loan programs for things like solar panels, batteries, and making condo buildings more resilient*
- *Ghg reduction incentives such as free or reserved parking for EVs (with and without charging) and property tax credits for home upgrades*
- *The biggest barrier is likely cost. We need simple programs that can be easily implemented with fewer hoops to jump through.*
- *Financial and other programs for improving home insulation and/or switching to carbon neutral heating*
- *Education and incentives for landscaping and gardening that support environmental goals.*
- *Government cash and grants to seniors to cover 100% of improvement upgrades to retrofit existing residences to sustainability, to repair any damages that occur due to natural disasters and proactive disaster safeguards.*

Why Calgarians think it is important:

- *CoC need to incentivize citizens to make homes more efficient (eg reduce the extra charges on an electricity bill when solar installed)*
- *The higher building standards and the means to improve my own building is huge for me. I support carbon tax but am still afraid of the impact of volatile energy or prices grinding steadily up but cost to avoid that by renos, solar is out of reach. Help!*
- *The above resources and programs need to focus on mitigation of greenhouse gas emissions in addition to extreme weather preparedness. This is perhaps even more important in the short term.*
- *We all need to prepare for high temperatures in summer, more demand for ac. I would like to improve my double paned windows to triple paned windows to keep the heat and cold out*

Support #3- Educational Resources

Respondents rated education as the third most supported resource that would be helpful. Comments included specific types of education and support like understanding the risks associated with a home purchase, the impact of meat heavy diets, home audit program and ensuring accessible information. Others mentioned the need to educate other industry professionals and businesses.

- *Educational resources as well as the other factors checked are crucial to sustainability for Calgarians because it affects everyone*
- *Legal requirements for realtors to inform people buying homes if they are in a mapped floodway.*
- *In emergency distress that it is accessible information for people in minority groups such as English as a second language, Deaf, hard of hearing blind etc*
- *I believe there's more I could do, but not sure what would work for me and our home. It would be wonderful to have consultants available who could visit our home, provide suggestions, and give us some direction.*
- *Education about greenhouse gases emissions from cattle animals and how to reduce meat consumption.*
- *I would like to understand more about how city growth (e.g. new communities) impact resources at the city and our ability to respond to climate change. Are we funding and managing growth in a sustainable way?*
- *Business owners and CEOs especially should consider these*

Why Calgarians think it is important:

- *I only picked education because I am poor and would like to know if there are things I can do, and will be affordable for me to participate in.*
- *It would be helpful to have more information about how I can be helpful in combating climate change as a low income earner.*
- *think that it's important to educate calgarians about the risk of climate change and the financial and health impact of severe weather events*

- *Most people do not even know this data is available and should be informed and have to sign something saying they accept this risk and realtors often lie or dismiss questions about this (see recent CBC story investigating this).*
- *Advertise and educate about the proven climate emergency and the need for everyone to step up and do their part in any way they can. Do not be afraid of the resulting oil & gas lobby and rhetoric. As a 30 year industry veteran, I know we were all warned.*
- *If I knew better, I would not have bought a condo in the floodplain*
- *Helping citizens be prepared in the event of a climate disaster is different from preventing climate disasters*
- *These don't apply to me but learning any new information could help. I like getting my information in print, if it is on computer then I will not bother.*

Support #4- Financing programs for home improvement upgrades (i.e. low interest loans)

Financing programs were not mentioned very often in the comments, but a few had ideas about who they should be for and how they should be paid. Others, albeit a much lower number, shared that they could finance their own upgrades by having lower taxes.

- *Lower taxes so I can better afford to look after myself*
- *Paying lower taxes so I can put my money where I want to.*
- *Reduce taxes (your spending) so I have cash available to deal with these events.*
- *Low cost financing of energy efficient upgrades for homes and businesses, and grants for the same would be an effective incentive - combined with effective communication.*

Why Calgarians think it's important:

- *Financing program would help benefit the youth and other low income Calgarians*

Support #5- Subsidized home improvement program for low-income Calgarians

This was an area that many Calgarians commented on and many Calgarians recognize that low income and equity deserving Calgarians require extra support. Warming and cooling stations were mentioned many times for those with a precarious housing situation.

- *All of the above are great ideas. Financial support for low income calgarians who cannot afford green alternatives. And more green building standards for all sites and neighbourhoods.*
- *The City should lead the way with public buildings which are net-zero, including affordable housing. Planned warming/cooling centres throughout the city are essential. Retrofit programs must be available for multi-unit housing and businesses. Heat pumps.*
- *Government cash and grants to seniors to cover 100% of improvement upgrades to retrofit existing residences to sustainability, to repair any damages that occur due to natural disasters and proactive disaster safeguards.*



- *I would ask that we start creating a fund for help for marginalized.*
- *a program for low-cost interventions for people with a fixed income that do not want to take out loans*

Why Calgarians think it is important:

- *These are the resources that would be personally useful, however I strongly support the other items, especially subsidies for low-income families to improve their resilience to climate impacts.*
- *Investment in urban densification, a robust public transit system, just-transition advocacy from HOAs.*
- *I can get by, some can't.*
- *It will be a great help that a subsidized home improvement be provided by the government to augment the financial difficulties of low income residents*

Support #6- More Affordable Insurance Deductible

A few respondents expanded in the idea of affordable insurance, but this topic also drew ideas about how to support people who are unable to get insurance based on the location of their home.

- *Affordable home insurance for persons living 125% below Federal poverty line and capped insurance*
- *More awareness is needed as to how to help Calgarians be ready for extreme weather. Insurance industry need to be more flexible and have more options or low to moderate income.*
- *Policies that protect people seeking insurance to be denied for reasons like living an area that might be impacted*

Why Calgarians think it is important:

- *I read in the news somewhere that insurance companies are staring to not cover climate related problems*
- *Clear targets and measures will help us all cooperate. Re insurance, the deductible doesn't matter as much as the breadth coverage.*
- *We all lose when not all of us can afford insurance yet the oversight of insurance and insurance scams is challenging.*



Additional Resources and Support Ideas

Calgarians offered other ideas about resources and programming they would like to see.

Multi-family and Condominium Specific Programming

- *programs for small condos like ours (under 20 units) to make climate upgrades like solar panels and heating/colling improvements*
- *Financing programs for condos not just single detached homes*
- *Multi family homes being able to access grants for upgrades for sustainability and resilience*

Why Calgarians think it is important:

- *Condos and apartments are usually left out AND allowing rowhouses everywhere and cycling infrastructure are crucial*

Investment in Green Spaces and Gardens

- *Education and incentives for landscaping and gardening that support environmental goals.*
- *It's too late for me, because the two 50-year-old spruce trees shading my home have already been removed to make way for a very large home, but trees are shown to greatly mitigate urban climate impacts. Strict rules about tree removal are needed.*
- *Natural infrastructure programs and incentives. More trees. Shade for extreme heat, and natural flood buffer.*
- *Urban reforestation, heat mitigaion, and creek daylighting/natural controls, esp in lower income neighbourhoods.*
- *Natural infrastructure programs and incentives. More trees. Shade for extreme heat, and natural flood buffer.*
- *Native plants that survive, low maintenance and low watering needs, add to urban canopy, attract pollinators, provide shade, don't require mowing, edible, etc*

Why Calgarians think it is important:

- *Reduce heat island effect*
- *Shade = Cool, and Plants = Capturing carbon (see soil rejuvenation)*
- *eg. lost a tree on city part of my property - called, very friendly response that they would call me back in one year for a tree to be planted in two years??? We need to plant more carbon sinks NOW!!*
- *There is too much red tape for these gardens. We have been waiting in Cranston for over a year for approval. People need food, something to do outside for mental health, and something to bring people together instead of tear them apart.*

Other Areas of Action

Based on the order of questions on the online engagement page, many Calgarians were quick to share what action areas they wanted The City to place focus. Although there is a smaller proportion of Calgarians who do not want The City focusing effort on climate change action at all.

Urban Design, Planning and Developers

Sentiments about this idea focused on how communities are designed and the role of developers and City planning in creating climate solutions.

- *Plan resilient (low carbon) communities. Development and building permits approved with climate change in mind. Reducing high water-use plants and ground cover (lawns and city property).*
- *Factoring resilience into planning and development permitting.*
- *I live in East Village, and my building was not hooked up to the District Energy Centre, which would spare GHGs comparative to current heating. I assume cost played a role. The City should work with developers to prevent this from happening again.*
- *Policy changes that actually make moves on GHG reductions, and demand developers to build using climate action and mitigation strategies.*

Why Calgarians think it is important:

- *While it's helpful to ask about residences, my living in the city expands my interest in what the city does to improve this urban space in which I live.*
- *More focus on urban intensification. Too many new communities are planned sprawling out calgarians.*
- *Developers and builders in Calgary are getting a free ride because of weak building standards, and Calgarians are subject to enormous costs to upgrade their homes to be more efficient and resilient to extremes.*

Flood and Water Infrastructure

This idea focuses on floodwater protection and other localized infrastructure to manage water resources.

- *Protect water sources, reduce water usage/lawns, educate population on why this is imperative.*
- *Build a reservoir along the Bow. 30 years is too long to wait.*
- *Flood mitigation along the Bow needs to be a larger priority. Look at BC. They had time to prepare but Government agencies didn't do enough.*
- *Upgrade stormwater basins*



Why Calgarians think it is important:

- *Infrastructure is not resilient, any disruption touches all aspects of living. More community based resources and systems and building construction considerations. More natural buffer zones for water runoff and trees to buffer hail etc.*

Transportation

- *Stop subsidizing cars*
- *Safer and more accessible transportation.*
- *Free transit to limit carbon footprint*
- *Work from home options*
- *Please get rid of free parking please do subsidize transit and please prioritize cycling and pedestrian infrastructure.*

Why Calgarians think it is important:

- *Safe and accessible roads and public transportation is critical to making Calgary a more liveable city.*
- *we need less reliance on just-in-time supply chains, less reliance on personal vehicles, more neighbourhood co-operative efforts.*
- *Be careful that the money spent on climate action within the city don't just pad the pockets of homeowners. Climate action must build equity. Make transit fare-free.*

Energy

- *More stringent standards for solar panel installation that partners with Enmax*
- *Aligning city goals to ↓ global warming as per IEA, IPCC, COP26 is imperative. That means electrification of Enmax with clean renewable energy. Nothing else is adequate. It means counting scope 1,2,3 emissions and identifying real targets.*
- *decarbonize enmax*
- *The City needs to promote the federal government undertaking swift and transformative action to get residences off natural gas and onto solar heat pumps. This should not be put on citizens without substantial rebates and discounts.*

Why Calgarians think it is important:

- *I can calculate a 2020 CO2 carbon target having been achieved based on these. Why couldn't the City ? Sad. Get buildings OFF the provincial fossil fuel fired power grid.*

Community Based Solutions

- *stop using technology to fix something. we need to make actual changes to our system and live more sustainably. it's about balancing SOCIAL ECOLOGICAL AND ECONOMIC. tired of profits over people. i want change.*
- *Invest in community based solutions. IE solar power on community buildings, cooling areas (i.e. install air conditioning in community centres), plant trees, more regulation on impervious surface (i.e. don't let people pave their backyards for patios)*

Why Calgarians think it is important

- *Disappointed in choices provided. Need more natural solutions and community solutions not ones that benefit a few individuals or businesses.*

General Mitigation and Adaptation Measures

- *Why can't the city adopt climate resilience/adaptation processes in its various programs -- from its infrastructure approaches to its transit to its parks and its other permitting initiatives.*
- *Proper seeding on clouds formations that hold high amounts of moisture....prevent hail*
- *Upgrade existing buildings ... or DO something else ... actually DO something, in place of your blah blah blah*
- *I believe that the above supports and resources should focus on mitigation first, adaptation second.*
- *The best actions address mitigation and adaptation and those should be the focus. Heat pumps, exterior siding replace WITH additional insulation, roof mounted solar PV*
- *This is all about managing risk. Protection for a higher level of risk costs money. There is a balance to be struck between risk mitigation and cost. In all aspects of life, some level of risk has to be accepted.*

Why Calgarians think it is important:

- *make substantive improvements to our climate procedure so we don't have to prepare for climate emergencies and instead avoid them*
- *Again I believe In investing in green solutions now to keep our climate warming below 1.5°C. I do not believe in carrying on "business-as-usual" and then trying to provide reactionary disaster relief*

Unsupportive of Climate Strategy and Action

The resources and support presented in the question resonated with many Calgarians and for a variety of reasons. There are a group of Calgarians, however, who feel that this is not how The City should be directing its resources or that any of this support would be helpful.

- *None of the above have much relevance to extreme weather events.*
- *None of these. They all just will increase my propert taxes further*

- *We should do a test during the coldest weeks of the year and see how many people can survive without Fossil Fuels*
- *I do not expect government to cover things that should be handled by an individual.*
- *i do not want money to pay for this. i want actual change done to the system to avoid climate change. i want carbon tax, more funding into LRTs. these are all bandaid solutions. i'm tired of it.*

Who is responsible and who should pay?

One theme that emerged from the commentary on the topic of resources was the question of who should be responsible, both in terms of who should act and who should be responsible for paying for it. While many are willing to take personal action and would appreciate additional support and resources to do so, others point to the certain homeowners, property owners, business, industry, and developers taking on their fair share of the responsibility. Calgarians had the following thoughts to share:

Who should act:

- *While I'm willing to do my part, my impact as an individual only goes so far; introducing changes to the building industry I believe will have a larger impact overall.*
- *My rental property leaks water when it rains, and loses so much heat when it is cold due to poor thermal bridging. I have to pay extra for utilities for renting a poor performance home. Hold landlords to a higher standard.*
- *The City needs to promote the federal government undertaking swift and transformative action to get residences off natural gas and onto solar heat pumps. This should not be put on citizens without substantial rebates and discounts.*
- *Supports should not come via tax increases. Governments (municipal and provincial) should enable supports but not drive them.*
- *I would like to see a discussion of corporate responsibility: airlines, oil companies, gas companies (and others, I'm sure) are the primary contributors and do \$bns worth of business in YYC. They need to be held accountable and brought in on the cost of the solutions. As well, they must be subject to meaningful regulations.*

Who should pay:

- *None of the above. But I am disgusted that my property taxes are being used to pay for someone else's roof. If you bought a house, you should also have YOUR OWN MEANS to maintain it.*
- *Many of us live from paycheck to paycheck and have no emergency fund so the city should step in and support us in the events of emergencies.*
- *Stop subsidizing people building in flood plains.*
- *Having landowners in floodplains be responsible to insure themselves against flood damage and to pay for the costs of any flood protection they benefit from.*
- *Landowners in floodplains need to be responsible for the costs of their lifestyle choices. Incentives should only be used to improve the energy efficiency of homes.*

- *I don't think my tax dollars should go to middle/high income people for subsidies. I don't think it is the responsibility of City Hall to give loans or insurance.*

Rough Sleepers

Rough sleepers were asked about resources and support with a few guiding questions. The first was:

- *Part 1: What resources and services have you used in the past during these times?*

Themes from Rough Sleepers

For resources these individuals have used in the past, several themes emerged, including emergency shelter spaces and community supports.

For those who talked about emergency shelter space, **official shelters** were mentioned by 15 of the 20 respondents, and three individuals shared that they **feel unsafe** in those shelters. **Train stations** was the next most common shelter type mentioned, with 6 of the 20 individuals using them in the past. One individual mentioned the inside of a **business dwelling** to keep warm.

The second theme was community support, which included the Alpha House **DOAP team** (9 mentions), **community organizations** (3 mentions), **friends** (3 mentions) and **food bank** (1 mention). Staff wrote:

- Has used shelters and stations in the past for shelter, states that there needs to be more housing programs
- encampment team, friends (stay with them when it's very cold);
- Encampment, C2C
- Encampment team, friends, Mustard seed;
- Use to stay in shelters
- tried shelters, food bank for food
- Nothing. Tried to access shelter but was kicked out, stayed in train station
- Has used shelter in the past but does not like it there due to harrassment from other clients, has used transit stations;
- No services used due to past trauma in shelter. Sleep inside business dwellings for warmth
- C-train lines/stations and friends
- used to utilize shelters but now feels unsafe
- Mustard Seed, Victory church
- transit, Alpha House shelter
- Encampment/Doap team;
- transit, Alpha House shelter, DOAP
- Alpha House
- Shelter
- Shelter, DOAP
- Shelter, Sorce



The second question was about resources and support, rough sleepers wish they had:

Part 2: What support or services do you wish you had access to (equipment, facilities, etc)

Themes from Rough Sleepers

All themes that emerged from this question focus on meeting basic needs. **Affordable housing** was the most common theme in responses, followed by temporary **warming stations/heaters**. The next most common theme was about improving their ability to survive in the encampment which includes **warm clothing**, better **tents and sleeping bags**, **camp stove** to cook on, and a **phone/internet**.

Safe/improved shelters was also mentioned by a few. Only one individual mentioned direct **income support** and only one mentioned **food**.

DOAP staff wrote:

- more housing programs in future
- safe shelters, housing, heaters phone
- housing, warming stations
- Warming stations, heaters, safe shelters, phone
- affordable housing
- affordable housing, stoves to cook food on when camping, warmer sleeping bags, bigger tents
- Would like warming stations
- Access to affordable housing quicker and warmer supplies
- housing, warming centre, tarps and pegs
- housing, heaters, safe space/shelter, better food sources other than food bank
- Affordable housing, more warming shelters, large supply of hand warmers and blankets/clothing
- Internet, housing
- having own place would help to deal with cold
- place to warm up
- Dry place to stay outdoors
- Housing, income support

Agencies

Question: What support or resources do you think your clients would find helpful to reduce the impact of extreme weather events? (Q 9)

Respondents said:

- I would need to ask them.

- **Resources in more languages, culturally-appropriate information sessions** in their communities (usually in NE Calgary)
- Improved **inclusive/equitable insurance options**
- Culturally relevant trauma resources for children, families and the community
- **Improved consultation and active involvement** (ie. decision making) of members of affected communities in preparation and mitigation efforts
- Additional **emergency funds as needed**, supports to assist in relocation/coping, **guidance and supports in preparation.**
- Ready available **access to items like air conditioning**, funds to stay at a hotel/motel, **gift cards for groceries**, gift cards for **taxi services.**

Considerations for the Climate Strategy and Action Plan Update

Most respondents are supportive of climate action and City supported resources. These respondents offered many ideas and sentiments about the options presented and how they could work for them personally.

Specific groups of people need specific resources and support to act. When it comes to educational resources, these need to be tailored for people in different living accommodations. What a homeowner needs for education will be quite different for a renter. Educational resources also need to be designed to address culturally specific needs, including translated material.

The need for subsidized programs to upgrade low-income housing was ranked high for low income, equity deserving and Indigenous individuals. This included upgrading affordable housing and building standards. There is also a need to address immediate needs for homeless Calgarians that will experience the direct impact of severe weather events most acutely.

Based on what we heard, resources and support could also be considered for distinct phases of a severe weather event:

- before (mitigation),
- during an event (acute, and immediate emergency support),
- after (adapting to reduce impact of future event).

There is a distinct sentiment about responsibility and who should pay for resources. The tension between this sentiment and the high desire for subsidized programs for low-income housing will need to be addressed and justified for many Calgarians.

Similarly, there is a need to build empathy within some Calgarians to increase understanding about the needs of others, and the collective benefits gained from supporting all Calgarians when it comes to climate action. It will be especially important to clearly communicate how a program designed to benefit a particular group, will also translate into a shared collective benefit.

Theme Area #6- Prioritization of Climate Adaptation Action

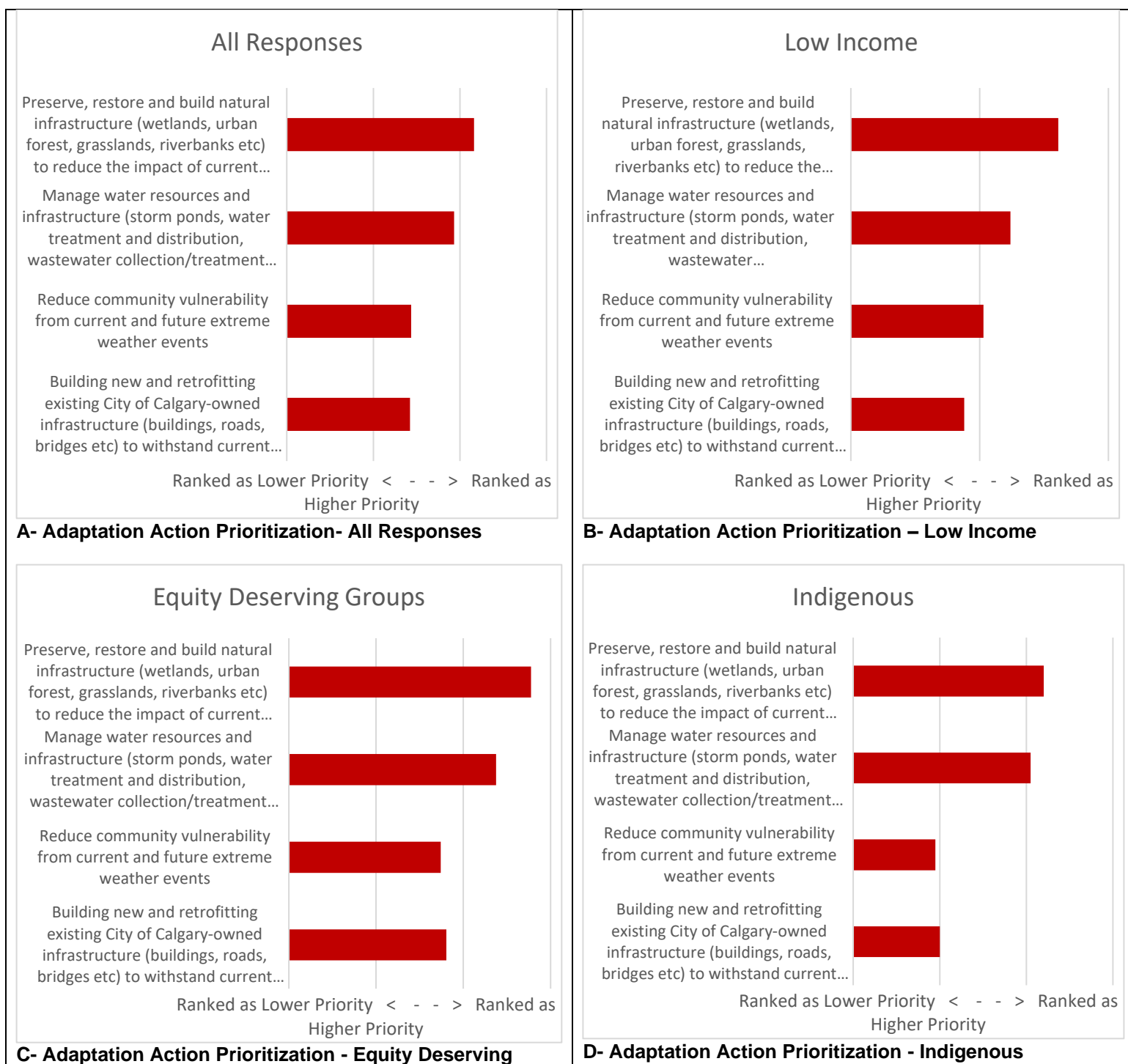


Figure 17- Prioritization of Adaptation Action



Figure Summary

Figures 17 (A-D) above outlines what we heard from Calgarians when asked the question:

The following is a list of possible focus areas for climate action that help us to prepare for and reduce the impacts of climate change. Please rank these in order of which you believe the City of Calgary should place priority. (Q7)

Options provided in the question:

1. Preserve, restore and build natural infrastructure (wetlands, urban forest, grassland, riverbanks, etc) to reduce the impact of current and future extreme weather events
2. Manage water resources and infrastructure (storm ponds, water treatment and distribution, wastewater collection/treatment etc) to prepare for extreme weather events such as floods, drought, storms and long-term impacts to our water supply
3. Reduce community vulnerability from current and future extreme weather events
4. Building new and retrofitting existing City of Calgary-owned infrastructure (buildings, roads, bridges etc) to withstand current and future extreme weather events

All Responses, Low Income, Equity Deserving Groups, and Indigenous

All groups of Calgarians agree that the order the options are listed above, should be the order that The City prioritizes effort. The slight exception is that equity deserving groups and Indigenous individuals would prefer to see building new and retrofitting city-owned infrastructure prioritized slightly higher than protecting reducing community vulnerability.

Action Area #1- Prioritize Natural Infrastructure

Comments about preserving, restoring, and building natural infrastructure were very strongly associated with the Water Management action area. In fact, many people do not see a distinction between the two.

- *long term view is to protect the entire planet by maintaining wild areas - carbon sinks (plants) water filtration (wetlands) biodiversity...*
- *#1 Globally one of the best ways to mitigate climate change is to restore green spaces aka - carbon sinks. Tree planting, wetland restoration etc. Biodiversity and reduction of concrete and asphalt which reflects heat. #2 drought is probably the biggest fear for our part of the country #3 neighborhood developers these days bulldoze all the trees. They are not building in a smart way. Trees provide shade for houses reducing the need for AC. Ppl dont plant trees so we need more public trees*

- *We have to get out of the way of nature and encourage it to regenerate as much as possible. Our city is built for a climate that no longer exists, so we need to harness nature to help us make our infrastructure less vulnerable, while creating wildlife habitat at the same time--as well as making better (less wasteful) use of resources. For example, when there isn't enough water for homeowners to water their trees to keep them alive, can the City provide grey water from its operations?*
- *The natural habitat are there to help in these events when you take away trees, reroute rivers this cause a weak point for these extreme disaster not being able to be blocked or redirected to lessen the impact*
- *Natural Infrastructure and water resources can have the biggest direct impact. Retrofitting city owned buildings is a drop in the bucket compared to the number of privately owned buildings.*
- *Increasing the area of natural wetlands and preventing building on natural areas are probably the most economically efficient ways of reducing storm impacts*

For many people, this action area also drew comments about inner city green space, natural spaces, and urban wildlife.

- *The city keeps allowing existing green spaces to be rezoned and developed. Green spaces are "climate fighters" and are enhance communities for all to enjoy. Forcing communities to densify is just wrong.*
- *We have such boring green spaces. Communities have bare fields. If you want communities to thrive, build visually interesting walking areas, gazebos/covered picnic areas, so we don't have to drive all over the place for a pleasant walk, and to just maybe have more community events. Not everyone plays sports, or wants to walk where there's no trees, shrubs, flowers, running water, etc. This would provide a soothing boost to one's mental health as well.*
- *We need to build more trees. There is so much unused land that has dead grass. Instead of that, we should plant lots of trees on those lands.*

Action Area #2- Prioritize Water Resources

For respondents who prioritized the management of water resources and infrastructure, the general sentiment was about water being an essential resource for life to thrive.

- *Water = Life, after that start planting trees*
- *Calgary has two rivers go through and key infrastructure is in low lying areas. Water is the most important strategic resource of the 21st century, like oil was in the 20th century. This city has huge resources that could be top-down and bottom up managed better*
- *Everyone needs clean drinking water. This is a major priority. I know we will be expecting drought by the end of this decade so we need to build water collection infrastructure to ensure we have*
- *With accelerating climate change, Calgary's water supply is vulnerable due to drought and loss of glaciers. Preserving the water supply for a city of ~1.5 million inhabitants must be a priority.*
- *Based on how hot it was last year and the issues our farmers have had with drought conditions I believe water is a very important resource to protect.*

- *clean water is crucial to our existence. Protecting water and our natural environment seem like great ways to reduce impact in the future. All of the options mentioned seemed important however.*
- *Water management seems most important to me. We've seen the impact on other cities that have experienced drought and water shortages, and the impact of flooding here in 2013. Citizens are totally reliant on the municipal government to be prepared for extreme climate events. (and I wouldn't want to rely on the Alberta Government...)*

Action Area #3- Prioritize City Owned Infrastructure

For those who prioritized this action area, the sentiment was about keeping infrastructure and services running for citizens and it being the responsibility of The City to do so. But some felt that it should not just focus on City infrastructure.

- *For a city to function, the infrastructure must be maintained.*
- *This is the only one that makes any sense.*
- *It is cheaper to upgrade infrastructure to withstand climate events than to deal with the suffering and disruption of transportation, infrastructure, economic and personal destruction*
- *I favour nature-based solutions where possible, and after that improving infrastructure that is under city control.*
- *I attended a conference on the need to drastically improve our infrastructure to withstand the inevitable impacts of climate change and see through the wildfires, extreme heat, drought and flooding in Western Canada how critical that priority has proven to be.*
- *because many older homes and buildings were not made for climate change back in the day*
- *Making your city buildings better is self interest and not going to make a dent in GHGs. Invest in resilient infrastructure to help Calgarians, not pat yourselves on the back for working in a LEED office. Resilient infrastructure can and should include green energy for Calgary, not just for the City owned buildings.*
- *Infrastructure is important to societal function. This is clearly evidenced by the recent events in BC.*

Action Area #4- Prioritize People

There were many comments about this action area, but the connection between “reducing community vulnerability” and “people” was not always made by respondents. A misunderstanding of how it was worded in the question could be why this area ranked low. Similarly, many respondents saw this action area more as an overarching goal that would be achieved by the other three options.

- *All are important, but the first three seem more actionable. The last one is more of goal than an action.*
- *Reducing vulnerability is complex - cost, family resources, understanding the issues and solutions/strategies, communicating effectively to citizens*
- *They all seem important. I would rank them all similarly if I could - but ultimately protecting communities is the primary goal. The other are seem more like means to that end*

- *The community effects of extreme weather events adversely affects so many people it action should be taken care of as soon as possible.*
- *Retrofitting CoC buildings is good but limited in terms of community impact - hence putting it last.*
- *Focus on the city's most vulnerable. Stop building more infrastructure that needs to be maintained and has a high carbon footprint and instead use natural processes to build resilience.*
- *Reducing Community vulnerability seemed vague and for many seemed like a goal that would be achieved by the other 3*

Themes

A few other themes emerged in the comments about these adaptation action areas. There were a few distinct values behind how people prioritized the action areas, as described below.

All Important

Many people felt that all were important and should be addressed at the same time.

- *they all seem equally important*
- *Frankly all of them are almost equally important. I could not decide the order. First, work on imminent problems that are coming our way.*
- *To be honest, they are all a priority. We have to do better at adapting to the changes, and I don't know that Calgary has done enough to take it seriously. The emergency declaration is a step forward, and I hope to see more action. But I know that too many people are more worried about the economy than the climate emergency*

Interconnection

For others, it was a challenging task to rank the action areas, because they saw them as interconnected areas that could not be addressed in a silo, as previously mentioned in the "Prioritize People" action area.

- *It's all tied together, the order was essentially moot as each option is important and connected to the others.*
- *Reducing vulnerability is a motherhood statement that includes the others.*
- *I understand the purpose of the question but the asking is part of the problem. You cannot sufficiently address one without addressing the others. Prioritizing is a false idea. Every decision should be made addressing all of these strategies. Any new development or maintenance of city services must be made with each of these considerations, a wholistic approach to every problem. The accurate accounting of long-term costs is essential. And the true price of any short-term gain.*
- *The first one should be one of the top goals and to get there you need to do the following three. Building new and retrofitting existing City of Calgary owned infrastructure needs to be expanded to ALL buildings in Calgary. Restoring and building natural infrastructure and water infrastructure*

needs to be happening at the same time (it takes a while for natural infrastructure to establish and become viable) - so ensuring that is also happening at the same time is important. Our existing assets (current buildings) are important to keep delivering services to citizens. Conserving / enhancing natural environments is very cost effective in mitigating climate impacts. Finally the engineered water solutions are important as well. I believe there is a role for city to play in reducing community vulnerability but that is done through the three other methods. The real estate market forces will also play a role in determining where people live/work (e.g. flooding=no demand)

Tackle Root Cause First- Mitigation over Adaptation

- *I think the City needs to prioritize ways that it can mitigate climate change. Reducing sprawl, enhancing cycling/walking infrastructure to reduce amount of driving (as opposed to building more roads).*
- *Mitigation is more important than adaptation, but both are needed.*
- *To me the environment must come first... why don't we fix the issue that is creating the problem instead of spending more money on ways to withstand severe weather destruction.*
- *Huge impact from reducing demand. By reinsulating my home I reduced energy use by 35%; Solar provides my electrical demand for 8 months per year.*
- *The options focus on adaptation mostly, and not reducing emissions. Reducing emissions as priority will reduce the cost needed on adaptations by both the GHG reduction in Calgary, and also acting as a leader for other communities to follow.*

Safety and Resilience First -Adaptation over Mitigation

- *Our big aim is to reduce community vulnerability and then we talk how to best reduce it. I think using natural solutions probably has the largest impact for the greatest number and would offer us the most control. Getting down to only specific retrofits is expensive and focusses only on one problem rather than the overall picture.*
- *We need to develop resilience. Although we can hopefully mitigate the progression of climate change through our activities, we need to accept that it is already happening and we need to be prepared instead of putting all our focus on the hope of reversing it.*
- *safety of citizens first, mitigation efforts after that*
- *BASIC essential stay-alive stuff needs to be prioritized. Helping people gain personal capacity to take responsibility for themselves.*

Focus on Largest Impact First

- *We should be studying the actual risks to Calgary before we take any action. Have we commissioned any independent research projects from a neutral source to identify possible risks? If not, this is all a waste.*
- *How did you come up with these categories - they seem somewhat random and overlapping. We need costs and benefits associated with each one. Once we have that, we can prioritize.*



- *I tried to focus on what I thought would be most impactful / helpful in an extreme weather event*
- *Ordered by the actions which should result in the most benefit*

Cost Effectiveness

This value was common in the comments about prioritization. Respondents want The City to consider the actions that are the most cost efficient, which many feel means leaving natural spaces intact.

- *It is probably more cost-effective to and favorable (from a park, hiking, enjoying nature standpoint) to manage the local environment than retrofit existing buildings to withstand marginally worse weather.*
- *Preserving natural systems seems to be the most cost-effective approach.*
- *Costs less to build natura infrastructure than it does to retrofit old buildings.*
- *A focus on adaptation actions geared to reduce vulnerability would limit social and economic liabilities, reducing the burden placed on businesses and individual Calgarians. Preservation and restoration of natural areas, with an emphasis on maintenance and enhancement of ecosystem services, is critical as the replacement costs for these services are often far in excess of the costs of maintenance.*
- *Nature-based solutions are generally more effective and cost efficient. Esp., since we don't really know the direction that Calgary is going towards--extreme heat, or extreme wet.*

Prevent Harm

- *Making things less bad to start seems like an easier and cheaper place to start than just trying to fix destruction.*
- *Prevention goes the longest way in minimise the effects of climate change on the maximum amount of households*

Criticism of Process and Government

For some Calgarians, none of these action areas are attractive. Some feel that extreme weather events are inevitable and that any action cannot prevent impact. Others feel the impacts do not warrant any action at all and would prefer The City's efforts to be placed elsewhere.

- *There were no good options to I ranked them from least bad to most bad. I would have preferred an option to have the city do nothing.*
- *those are not the focus areas, help homeowners and business owners*
- *How about stop the nonsense and reduce our property taxes.*
- *Each item is just another example where government increases taxes, increases cost, wastes my time, and generally make living in Calgary much more difficult.*
- *They are all terrible ideas.*
- *None of these address climate change.*

- *There isn't a big problem that the city needs to address. There are more significant issues, and money shouldn't be spent where there is no obvious benefit.*
- *How about doing your job and run the city. Keep the infrastructure running, make Calgary a great place to do business, raise a family. We need jobs, low taxes, good infrastructure. Leave global politics alone and stop wasting our money*

Agencies

Question: The following is a list of possible focus areas for climate action that help us to prepare for and reduce the impacts of climate change. When thinking about what might benefit your clients the most, please rank these in order of which you believe the City of Calgary should place priority. (Q11)

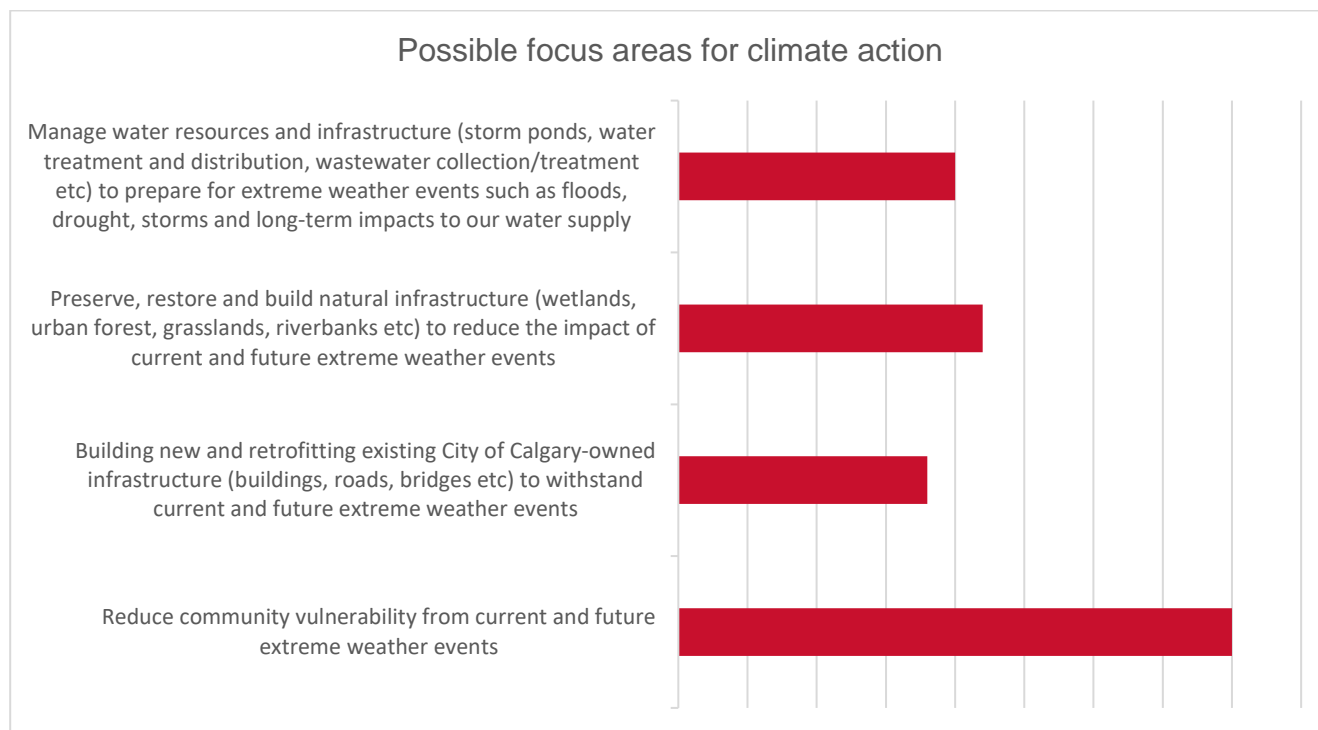


Figure 18- Agency Prioritization of Adaptation Action

Agencies ranked reducing community vulnerability as the action area that would most benefit their clients (Figure 18). When given an opportunity to explain why they prioritized the above focus areas the way they did, agency respondents said:

- I think that **reducing community vulnerability will require community engagement** and may **create buy in and help support the other 3 areas** which I imagine will be costly. In addition, this may be an opportunity to **involve clients in something that they do not understand**.



- "Our neighbours' strengths are our strengths, and our neighbours' weaknesses are our weaknesses". Climate change and the impacts of extreme weather events impact entire communities, and the **City needs to ensure that nobody is left behind in the climate change transition.**
- Our **clients are a vulnerable population. They would be most supported by reducing community vulnerability** and would **benefit the most environmentally by having facilities that can withstand extreme weather.**

Considerations for the Climate Strategy and Action Plan Update

The Calgarians who support climate action agree that The City should prioritize managing water resources and protecting, restoring, and building natural infrastructure. This makes sense based on the high-risk rating of flooding. Agencies believe The City should prioritize reducing community vulnerability.

While some people felt reducing community vulnerability would be the end state goal of the other actions, this ranked the lowest for priority for most Calgarians. This could be explained by a misunderstanding about what this action area includes and what it means. Increasing support for this action area, as mentioned in previous sections, will require building empathy within our community for the needs of others. Again, the collective benefit for all will need to be clearly communicated for work that falls under this action area.

Theme Area #6- Prioritization of Climate Mitigation Action



Figure 19- Prioritization of Mitigation Action



Figure Summary

Figure 20 (A-D) above outlines what we heard from Calgarians when asked the question:

The following is a list of possible focus areas for climate action that will help us reduce greenhouse gas emissions in the community. Please rank these in order of which you believe the City of Calgary should place priority. (Q8)

Options provided in the question:

- Improve the greenhouse gas and energy performance of new and existing buildings
- Increase the number of renewable energy projects in Calgary (solar or wind energy projects)
- Expand low-carbon transportation modes (like transit, walking and wheeling)
- Increase the number of jobs in the low carbon/green economy sector (Clean tech company, distributed/residential solar, battery manufacturing) in Calgary
- Increase the number of zero-emissions vehicles on Calgary's roads
- Eliminate waste from entering Calgary's landfills

All Responses, Low Income, Equity Deserving Groups, and Indigenous

All groups of Calgarians agree that the order the options are listed above, should be the order The City prioritizes effort. The exception to this pattern of response is from low income and Indigenous individuals who feel that eliminating waste from the landfill should be a higher priority than increasing the number of zero emission vehicles on Calgary's roads.

Themes

When asked to explain how and why they prioritized the action areas the way they did many themes emerged. Themes for this section focus on the reasoning for how people prioritized each item.

Action Area #1- Improve the greenhouse gas and energy performance of new and existing buildings

Multiple themes were common from those who prioritized this action first, including **Targeting GHG's, Largest Positive Impact, Immediate/Direct Impact, and Practicality.**

- *We need to be building to passive house standards*
- *Heating/cooling of buildings create the most GHG emissions so you need to start there and work down the emissions scale. As you begin the work, the jobs will follow.*
- *I focused on what I believe will be the most impactful to reduce GHG's and also help with economic diversification*
- *Given the amount of energy used by our buildings I think this ought to be our highest priority, perhaps even incentivizing technologies such as heat pumps over AC. And instead of focusing on endorsing car infrastructure for EVs, we should be working towards creating communities where we*

can get to our daily necessities via bike/walk/transit without a car (in the spirit of 15-minute cities). I believe this kind of direction from the city would help create the low carbon/green jobs

- *Buildings and transportation are major emitters. Focus efforts here.*
- *I understand buildings to be the city's biggest source of emissions, and also to be an area that is hard to tackle unless stricter rules are enforced, and incentivizes offered by, local government. Once that big issue is addressed, we need to focus on growing the economy and seizing the opportunities of the low carbon economy.*
- *Prefer direct impacts such as encouraging net zero building, as opposed to an indirect approach of increasing jobs in sector.*
- *Building stock takes a long time to replace, better start now*

Action Area #2- Increase Renewable Energy Projects in Calgary

For those who chose this action item as the top priority, themes about **Seasonality, Offsetting Use, and Job Creation** were the most common. Others had some comments about the Negative Impacts/Consequences of this action area.

- *Reducing our reliance on non- renewable energy sources in order to offset our increased electrical usage in extreme heat or cold weather conditions could be positive for everyone.*
- *Enmax (owned by Calgarians) is a major energy provider and needs to lead. Climate change (+30 C/-40 C) will affect how we work/rest making hybrid and work and learn from home more common. When people do need to leave their homes, Vancouver is a leader in mass transit and walkability. Transportation is the largest source of ghg so EVs are logical. Even if buildings are not entirely efficient in energy performance, at least they will draw their power from renewables, making it not so bad.*
- *We get wind and we get sun. Lots of it. Let's use it.*
- *I am not sure that we will have sufficient energy sources for our needs during the year. Short days in winter, unreliable winds, etc. could reduce available energy that is available.*
- *Need to move to clean electricity as soon as possible and must clean energy grid as a first priority to have biggest impact*
- *Alberta/Calgary has to change its focus on non-renewables and provide the incentives to do so.*
- *Increasing renewable energy projects also creates more jobs. It also provides the energy for "zero emission vehicles" which are currently powered by electricity produced in coal and natural gas plants.*
- *I would love to see some huge Windmills on top of the SpyHill Landfill...that location has to be on of the Windiest in the Province...*

Negative Impacts/ Consequences:

- *Solar and wind is intermittent power generation and the German experience is that it's lead to more coal fired power generation and an increase in green house gas emissions. Don't waste time and money on wind and solar.*



- *Wind and solar is unreliable, expensive and has a terrible carbon footprint.*

Action Area #3- Expand low-carbon transportation modes (like transit, walking and wheeling)

Respondents who chose this action area shared the largest number of comments than any other action area. These focused on current transportation options, increasing active transportation modes, and improving public transit. Respondents who rated this action area as the priority commonly shared sentiments **about Targeting GHG's, Largest Positive Impact, Immediate/Direct Impact, Incentives, Making It Easy** and it being **Good for People**.

Target GHG's

- *High carbon transport is the only time-effective way to get around most of Calgary right now. Transportation accounts for most of the emissions in our city. Providing low carbon alternatives is the #1 easiest way we can make a dent in emissions numbers, and it also has a HUGE amount of positive side effects (more financially viable cities, more livable, less pollution, less noise pollution, less traffic accidents, etc)*

Largest Positive Impact

- *I ranked transit, active transportation, jobs, and renewables projects highly because they serve double duty, ie, they are good for the environment but they also improve Calgary regardless of climate change. Zero-emissions vehicles are low because they don't help solve other problems (traffic congestion, safety, etc) and because they take a long time before they even break even for being better than gas vehicles.*

Incentivize and Make It Easy

- *The two biggest areas the city can make any impact on climate change are development and transportation. All choices should be made to make it simpler for people to live climate-friendly lives without having to invest a lot of effort. Use laws to make things better.*

Incentives and Accessibility

- *We need to reduce vehicle emissions - this includes incenting more people to use transit and making driving difficult and expensive. This is an opportunity also for Calgary to showcase leadership in the supply chain transportation system.*
- *Worry less about increasing single occupant electric vehicles on the roads and make public transit a better more accessible option.*
- *Accessible eco friendly transportation is so important for all members of society.*



Good for People

- *The city has to start focusing on prioritizing people over cars (even electric ones). Great cities are founded on multi-modal transportation networks prioritizing public transit, walking, and bikes (even in the winter). This is the most cost effective way of reaching our climate goals.*

Immediate Impact

- *Expanding alternate transportation modes is one of the most affordable things to start doing right away.*

For those who do not support this action area, themes were about **Practicality** and **Seasonality**.

- *I'll explain the final choice. Stop taking away existing asphalt infrastructure for these projects. It only creates longer distances and increased idling for commuters to travel. All the buses in the world wont help me to get to work.*
- *This is Canada and our winters last 6-8 months. Expecting people to walk/bike all winter, or heat their home with non-existent solar or wind power when it's 30 below is not practical and does not create impact.*

Action Area #4- Increase the number of jobs in the low carbon/green economy sector (Clean tech company, distributed/residential solar, battery manufacturing) in Calgary

Comments about this theme were typically connected to other action areas, either how acting in other areas will result in an increase in jobs, or how increasing green jobs can help drive action. Many people also shared that this angle would appeal to the largest number of Calgarians, when it comes to buying in and supporting climate action. Themes common for this action area are **Good for People** and **Incentivize**. A few people disagreed with what jobs were provided as examples of "Green economy jobs" in the question.

- *Increasing jobs is a win-win for the city - we need more jobs to counteract the decline of oil and gas, and we need new clean ways of generating energy.*
- *Calgary needs jobs and needs to be a leader in green jobs. We can do both, which will lead to better technology that can drive the other priorities.*
- *Fostering the expansion of green / carbon zero industries in Calgary would provide jobs for Calgarians outside of the oil and gas sector, which could have larger-scale effects on CO2 emissions.*
- *calgarians are concerned about jobs and the economy. if you want succesful climate actions, using this framing would oikely be the most successful solution with the most support.*
- *Calgary needs jobs so that we can afford to upgrade facilities. Need wind/solar on public buildings and use park space too. Start with City's fleet first - don't expect citizens to give up their diesel trucks unless The City gets rid of all their diesel vehicles first.*
- *Jobs are important. Emissions aren't*

- *Creating jobs and inspiring innovation is the key forward. Great minds that work together can get things done more efficiently.*
- *Jobs will follow the projects. Priorities should be buildings, then transportation, then waste.*
- *Calgarians care about jobs. That's our culture. We need to get buy in from Calgarians by showing that climate action does not kill the economy.*
- *in order to get the buy in of a lot of people, jobs need to be created. I believe my two first points will do that.*

Negative Impacts/Consequences:

- *Battery manufacturing green?? [removed] have you not even looked at the pollution and life cycle impacts of batteries? They are way worse than fossil fuels.. especially clean coal or natural gas. Brutal understanding you folks have..*

Action Area #5- Increase the number of zero-emissions vehicles on Calgary's roads

This action area did not have many comments that justified why it was chosen as a priority. However, there were many people who had comments about why this action area was not a desirable choice. Themes for this area focused on **Practicality**, **Targeting GHG's**, **Immediate/Direct Impact**, and **Negative Impacts/Consequences**.

- *EV's are not the answer, less cars are. The amount of roads we have and the reliance on automobile are a serious problem. All climate scientists say this. It is unclear how this isn't registering with the city. It's ridiculous that after declaring a climate emergency, you have announced raising the cost of public transportation. It's embarrassing.*
- *Urban sprawl in Calgary is ridiculous. It's unsustainable and imposes huge burdens on the tax base as the City ages. It also makes public transit unworkable. A 20 minute car ride can take over 2 hours on Calgary Transit. Public transit works well in dense areas like the old cities of Europe, or Hong Kong, Tokyo, etc., but since we've allowed developers to build this sprawling mess, we have little choice but to be a car-centric city, so at the risk of offending the "oil patch" incentivize EV's*
- *I think using electric cars is a great way to help the earth. If more people do that it would become more affordable*
- *EVs are a viable option at this point and the City is in a position to promote, require and assist with installation of EV charging infrastructure, easing (needless) worry about being able to charge an EV. This can make a huge difference in EV adoption. Once you get on board with one piece of climate-happy tech, you're more likely to embrace more of it ("wait I could make my own power for my car at my house for basically free? Yeah I want that")...*

Negative Impacts/Consequences:

- *We are challenged by our cold weather and heating buildings and homes. I have concerns about our infrastructure for electric vehicles. When most of Albertas electricity comes from natural gas and coal, I'm concerned electric vehicles full cycle are not as good for the environment as everyone is saying.*
- *Zero emission vehicles are misconception. The creation of the battery itself is horrible for the environment and relies on open mines. After several years those batteries need to be disposed of. Currently there's no clean process to do so.*
- *We need to focus on having less of an impact with what we already have. EVs are still terrible for the environment and encourage sprawl.*

Action Area #6- Eliminate waste from entering Calgary's landfills

This action area was the lowest ranked of all the options. Although, some did feel strongly about acting in this area with common themes being **Largest Positive Impact** and **Immediate/Direct Impact**

- *Only reducing waste from entering landfills will actually do anything to help our environment. The rest is politics with no science backing.*
- *Reducing waste should be a big focus. I don't see the benefit of electric vehicles when the electricity comes from sources such as coal and natural gas - this isn't actually helping, just moving the pollution to another part of the province.*
- *Household and construction waste minimization is a priority area for me as is enhancing the innovation sector in Calgary.*
- *Concentrate on mitigation/diversion of contributing waste & overuse/reliance of Calgarians on polluting solutions, then prioritize implementing alternative eco friendly economies.*
- *GHG is urgent. Also, look to other provinces like Nova Scotia--they've been diverting more waste from landfill for decades.*

For non-supporters of this action area, **Targeting GHG's** was most common.

- *Waste is not a significant source of GHGs. Wind and Solar are key climate mitigation technologies but have the most potential outside the city limits. In Calgary Solar is important but Wind and Solar should be focused on in general not simply inside the city limits. Vehicles and building heating are the two biggest sources of GHGs outside of electricity and are thus ranked highest.*
- *Vehicle emissions are significant. I think Calgary is doing a great job of recycling and reducing the amount of waste put in the landfills.*

Other common themes that emerged from the comments on mitigating action areas were as follows:

All Important and Interconnection

- *They all are good let's start them at small scale and see what scales*
- *My first response will not surprise you, they must all be done simultaneously if any real progress will be seen in time. Regulation on who is financially responsible for pollution in all forms is critical. Those who profit should be responsible for the 'cost' of polluting. Back to quality of design. Localize as much as possible services and resources. A lot of this will happen naturally if addressing what is needed for individuals to live a less carbon intensive life.*
- *I see no priority because the city already does a lot of these well.*
- *These are all important but I would like to see the city reduce its overall emissions*

Not a Municipal Priority

- *It is far beyond the mandate of the city to build solar and wind farms. Enmax perhaps but not the "city".*
- *How is a municipal government going to force citizens to drive electric cars? Not only is it out of their jurisdiction, we don't have the electrical infrastructure to support it.*
- *It is not the city's job to worry about creating jobs or improving the economy. Set the standards, the rules of play, and the economic activity will follow the opportunity.*
- *It is not your place to regulate the building industry that is Federal/Provincial.*
- *Again, this is a spectacular waste of resources. Put it into social services and help the less fortunate.*

None of these

- *None of that will make a difference.*
- *These areas miss the point and will have minimum impact*
- *I prioritized none of yours. They are not the answer. Alberta has the most I*
- *The local impacts of climate change are almost non-existent vs. International factors. Do not waste local money until something is agreed to internationally.*
- *None of these are necessary at this time. They would be very expensive, and would have very limited benefits. The city needs to work on projects that are more than posturing.*

Agencies

Question: The following is a list of possible focus areas for climate action that will help us reduce greenhouse gas emissions in the community. When thinking about what might benefit your clients the most, please rank these in order of which you believe the City of Calgary should place priority. (Q12)

Options provided in the question:

1. Improve the greenhouse gas and energy performance of new and existing buildings
2. Increase the number of renewable energy projects in Calgary (solar or wind energy projects)
3. Increase the number of jobs in the low carbon/green economy sector (Clean tech company, distributed/residential solar, battery manufacturing) in Calgary
4. Increase the number of zero-emissions vehicles on Calgary's roads
5. Expand low-carbon transportation modes (like transit, walking and wheeling)
6. Eliminate waste from entering Calgary's landfills

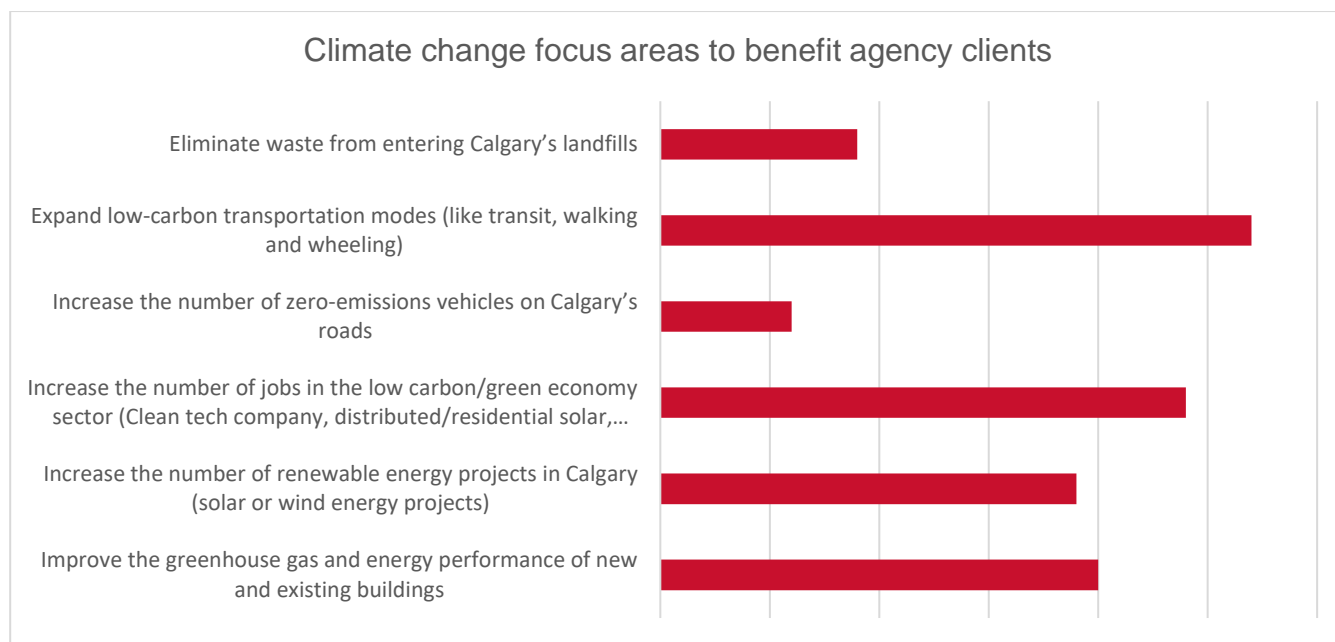


Figure 20- Agency Prioritization of Mitigation Action

When agencies were asked to explain why they prioritized the above focus areas, they shared:

- Our clients **use many City facilities** on a regular basis. Having these facilities be **environmentally efficient and accessible** would be of great benefit. Expanding **low-carbon transportation options best fits** with their current abilities and lifestyle.
- Our clients **do not have the resources to purchase a lot of the new technology** available to support climate change mitigation.

Considerations for the Climate Strategy and Action Plan Update

Most respondents support all action areas presented in the question to various degrees. The important consideration for the climate plan is understanding the values of Calgarians that guide support and the value sentiments from those who do not support a particular action area. These will be important considerations when developing the programs within each area.

The City's technical research has already indicated that these areas will be the best course of action for reducing total GHG's. Many Calgarians would like to have better understanding of how these actions have been identified in previous technical studies and how action in each area could impact total GHG reduction.

Theme Area #8- Additional Areas of Action

Respondents were asked if there was another area The City of Calgary should include as a focus area to reduce greenhouse gas emissions (mitigation) and to reduce the impact of severe weather events in the future (adaptation). Many unique ideas and themes were shared. While many Calgarians have ideas about actions to be considered for inclusion in the Climate Strategy and Action Plans, a smaller number trust the experts to decide what is best.

Transportation

- *Traffic lights synchronization. If your computer people knew what they were doing, it should not be such a problem area, and one fraught with frustrations for motorists. You should also improve transit by making the ticket valid for more than 90 minutes. I have had a few friend tell me that on long trips from SW to NW or NE, the drivers of their final bus make them use another ticket, which is [removed]. These people are not stopping to shop or such, so you cannot use that as an excuse.*
- *Reduce parking availability and/or increase costs of vehicle usage.*
- *Where are the bike lane commitments? Transit-only lanes? Increasing transit frequency? Cancellation and abandonment of road-widening projects? Stop building parkades.*
- *yes - where is the focus on making cycling in calgary communities safer? transportation emissions are huge, as well as health and wellness.*
- *build out our cycletrack network so every. single. calgary residence has access to it no more than 500m away.*
- *Make automobile drivers pay their equivalent share of infrastructure cost (road upkeep, overpasses, etc...) either via a gas tax, license fee, or tolls. Transit users know how much their burden on the city costs, private vehicle operators should too.*
- *Taking the bus feels like a punishment for being poor, expand/improve: bus lanes/right of way, frequency, bus stop benches and shelters, LRT, sidewalks, smartcard pass(Edmonton/Red Deer have them), electrify bus and LRT.*

Stop the Sprawl and Design Better

- *Adapting existing communities (not building new ones!) to decrease carbon-intensive activities such as driving*
- *Restricting new builds on previously undeveloped land and focus on improving what is already within the city limits*
- *I think the most important focus of the city should be on reducing urban sprawl by way of the planning process. Sprawl tends to involve larger houses and certainly greater transportation needs; therefore, it drives an increase in greenhouse gas production by both buildings and vehicles. Besides that, I don't believe it provides the best means of developing more sense of community. That being said, I think there is room for more creative forms of "densification".*
- *Urban planning to increase 15-minute neighbourhoods; transit that connects neighbourhoods as well as downtown*
- *City needs more community hubs so people can walk to work, amenities.*
- *Pace of development. We must leave behind the old understanding that the point of everything is to maximize a return. Our economic frame is a distortion of what should be our objectives. Investment in smaller scale developments in walkable, sustainable communities will serve us much better and longer than encouraging sprawl developments and subsidizing large, global corporate investment. We must reclaim self-determination and control over the city we wish to create. Diversify in all ways*

Innovative Energy

- *Energy generation from solar, water and wind sources using scalable unit solutions. For example, small turbines can be part of streetlights to generate energy from wind or placed in water pipes to generate energy from toilets flushing. Solar panels can be installed in surface parking lots to provide shade and generate power.*
- *Why isn't the Mayor advocating for Wind generation in the City Landfills? It's super windy up on the SpyHill Landfill, why doesn't anyone advocate for putting huge Windmills on top of that site?*
- *Invest in greener technologies for waste management. Ban plastic utensils and takeout containers. If you can't recycle or compost them get rid of them. Increase compostable ability to compost bioplastics. Capture the methane produced by composting and use it for energy generation. Use carbon capture technology to limit exhaust from burning the methane.*
- *Wide-scale upgrading of power transmission networks in suburban areas, coupled with wide deployment of subsidized rooftop solar across suburban Calgary. Calgary is a solar energy goldilocks-zone and a city-lead project for wide deployment of rooftop solar would be a game changer. I humbly volunteer my community, Millrise, for the pilot project.*
- *Yes-waste to energy! Look to Sweden as to ways to reduce landfill burying of refuse. We have a (virtually) endless supply of refuse that we can turn into energy to power COC buildings and sites.*
- *Rather than building solar/wind farms in Alberta build interprovincial transmission ties to tap into BC's plentiful hydro. Industry/petrochemicals are a big source of GHGs. We're in a rather cold*



climate but more use of community-based (geothermal) heat pumps for residential heating rather than natural gas.

Educate, Engage, and Communicate

- *Education of the average Calgarian as to what they can personally and legally do on their property to help*
- *Education on the smaller / easier things that people can do. Education on the biggest impact items that have lower costs as they are more accessible to people.*
- *I want to have updates on what is being addressed, where the City is with achieving that focus, and whether the outcomes are beneficial or a learning experience. I think citizens are left out largely from communication from the City. It needs to be readily accessible and as public as possible - media, newspapers, brochures*
- *Environmental education - Calgarians, especially those who are addicted to the oil and gas industry - need to appreciate earth-friendlier alternatives. This means culture change.*
- *I believe these are the types of decisions that require lots of knowledge and careful thought, which at this time I personally am not really qualified to do. But I just gave it my best shot. I DO believe there should be citizen education and fora about these issues so we can become qualified. That is called transparency, and tbh right now the govmt needs all hands on deck and should be including citizens in a meaningful way.*
- *Why don't you provide information about the percentage of GHG reduction that each initiative would generate, and the associated cost?*
- *Where is Advocacy on this list? Where is educate the public?*
- *Capacity and demonstration projects to help support organizations and communities looking to take action.*
- *Get people involved. It is everyone in the community that needs to help out, not just the city workers.*

System Approach

- *Systemic solutions / robust public education campaign advocating for free public transit, a greatly expanded transit system, urban densification, community gardens, expanded bike lanes. Basically, you're putting it on us, when you've been elected to take bold action. Again, you can't solve systemic problems by putting the onus on individuals, and in fact the focus on individual action is a well-documented tactic polluters and other stakeholders use to avoid accountability.*

Incentives

- *Create homeowner incentive programs to allow more Calgarians to make impacts from their properties. Perhaps a joint Municipal-Provincial-Federal program to split the cost across more government budgets, and allow for higher incentives to gain a higher participation. It would be nice to see at least 50% of Calgary properties with rooftop solar, for example, to displace natural gas power generation.*



- *A corporate city property tax incentive to businesses that do remote work from home, recycle, use a sustainable lens, low-emissions*
- *Incentives for tree planting*
- *Zero interest loans for Solar panels and forever maintenance costs on every home in Calgary*
- *a condo incentive to build flat roofs to convert to local greenhouses will help Calgary keep with the 100 km diet to drive down transportation demand, to then shop and eat locally.*

Emergency Preparedness

- *Community stations during extreme heat and cold.*
- *We need local control or at best regional control of our EMS police and emergency equipment NOT PROVINCIAL.. if we are code Red in November 2021 how are we going to safely manage an emergency*
- *Emergency operations group to help worst hit areas with recovery efforts*

Reduce Consumption and Waste

- *Focusing on exclusively the weather aspect of climate change is very narrow sighted. Doing more preventative measures like composting, reducing consumption, proper recycling education and practice. Community gardens, swap meets, garage sale parades. Creating more opportunities to not buy new products, the second hand industry must become primary. (Good Neighbour a fantastic example)*
- *Kind of captured in eliminating waste, but consumption is the massive elephant in the room. Building and buying everything new all the time is unsustainable. Maybe support community groups and businesses who have a circular approach to the economy and material cycles and business. Also where is food production?*
- *Information spread for simple ways to do these things. Compost, reduce, reuse, buy in bulk, shop local! Shopping local not only boosts your local economy but reducing the carbon footprint of what you are buying.*
- *Electronic waste recycling that actually extracts the metals and other reusable materials to be used again.*

Food Security, Diet and Agriculture

- *Should be more education on the link between diet and climate change (meat and dairy account for more greenhouse gasses/land usage than anything else listed here)*
- *Help Calgary become self-reliant by driving down consumer demand for meat agriculture that demands a lot of water vs crops that uses less water.*
- *Urban greenhouse farming projects*
- *You could focus on urban farming and promoting more community engagement on planting and gardening.*

- *I heard we have an industrial greenhouse in the south to help supplement grocery supplies for Calgary. With all that's going on, why not one in north too? Offer restaurants rebates for donating what they would consider food waste to shelters and food bank (if not already).*

Building Codes, Regulations and Bylaws

- *Corporate responsibility in climate action. I can't control if a shady builder or business in an industrial park is taking proactive climate protection steps. But the city needs to.*
- *Having building codes that limit the amount of space devoted to parking (would increase density & increase land permeability).*

Equity- Accessibility, Universal Design, Disability, Mental Health

- *Universal design in these development that allows all calgarians to have access, no barriers and inclusive (for visible and invisible disabilities, physical and mental/ cognitive)*
- *I have found with limited communication access during the pandemic in an emergency response the city lacks this, same with the flooding. Ensuring that everyone belongs you need to have accessibility at the table in these discussions, planning, development and execution. We can not be an afterthought.*
- *Only high end communities get lakes, and others bare fields. My community has play areas for kids, but what about a splash pond? What about those of us with no kids or sport involvement? These areas provide nothing for me. I drive across the city just to have a picnic. Where's the BBQ stands? Want a more inclusive society, start with park gathering points in the community. If we have to drive across the city, then gas emissions are up. Transit is not frequent enough in far out communities.*
- *Justice & equity. This refers to those with lower financial means being more vulnerable and having fewer resources to work with. Start there. This is an opportunity to apply solutions first to low income housing and making sure it is adequate. Resilience is not survival of the fittest, it is about survival of community. City should have stepped in right away to speed settlement of insurance claims and help all get suitably improved roofing. City needs policies & readiness to act on such events.*
- *Perhaps mental health support?*
- *Within these areas keeping an eye on how they can impact/benefit vulnerable populations, advance reconciliation, and advance other social justice/vibrant community goals.*
- *We all have elders. 600+ died last summer, cooked. That is suffering. Many more were traumatized and lost their homes and all assets in catastrophic weather events. We breathed smoke while it covered everything outdoors, where we love to be last summer. See the job to do, do it!*

Increase Green Absorbent Spaces

- *Working with communities and Calgarians to plant more trees, move to xeriscaping, fewer lawns, less concrete, etc.*
- *Low tech solutions? Encourage gardening, tree planting, parks, design for less pavement etc.*



- *You could focus on urban farming and promoting more community engagement on planting and gardening.*
- *The traditional lawn needs to be re-examined & possibly replaced - for instance, planting with native grasses that require far less water/mowing.*

Diversify and Attract

- *Aggressively attract low carbon businesses to Calgary. Reduce property taxes for these businesses, cut red tape. Work with the province and the feds to give more deductions, better loan terms, reduce income and payroll tax rates for these businesses. Low carbon economy is the future.*
- *Stop talking about CC & S. No one is fooled by it. Fossil fuel companies just want to use it as a crutch to burn more carbon. This doesn't give the City of Calgary any credibility.*

Include Wind and Extreme Cold

- *Wind. Calgary is a very windy place. Climate action should also include preparing for extreme wind events. This includes securing construction materials on high rise projects, pruning trees to minimize power line and structural damage, to name a few.*

Make It Easy

- *People will go green if it is affordable, easy and when we have an existing infrastructure then more jobs will be created. We are lazy. Otherwise people will continue to invest in affordable goods at Walmart that end up in the landfill to address basic needs and drive there to get them.*
- *If communities recognize the economic advantages of going green, there will be better and more widespread support for action. Creating incentives for zero or lower emissions should have a positive effect. Having usable, and cheap transportation infrastructure will make people more likely to use the greener options.*

Let the Experts Decide

- *I'm not sure. Again, I think expert consultation would be more important here.*
- *Maybe somebody could think of something, but really? For decades very intelligent people have been busy and frantically coming up with solutions. No need to reinvent the wheel.*
- *I don't feel qualified to suggest anything else*
- *This is all mostly nonsense. But I had to rank somehow... while we need to address climate change, polling the audience instead of commissioning a research project by a proper consulting firm is silly*



"Advertise with signage, radio, TV, social media about the climate emergency.

Be brave! This is the most important endeavor of our lives."

Calgarian Respondent

Agencies

Agencies were also given an opportunity to comment on if they felt a focus area was missing (11b). They said:

- To what degree are **new builds as well as rebuilds post-extreme weather events being built with climate resiliency in mind.**
- **Location of services is key for reducing impact.** Ensuring that they are **located near necessary supports and public transportation**
- **Building a fund to support the most vulnerable** to poor outcomes in these situations. It will cost money to help these individuals manage during these situations.

The following section summarizes the themes that emerged from five virtual workshops that were conducted with internal City staff working on equity related work (1 workshop), external agencies and community organizations (2 workshops), and equity deserving individuals (2 workshops). This information was analysed, themed and reported by Toronto Environmental Alliance, as part of their support to help integrate equity into the Climate Strategy and Action Plans.

Section #1: The Big Picture of Climate Equity

[illegible]

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Section #2: Of the Utmost Importance

Internal Staff

- *Providing financial assistance to support those that don't have choices. (Q3)*
- *When an event happens everyone's lives return to normal at the same rate. (Q7)*
- *A greater sense of being Calgarians as opposed to being individuals in Calgary. (Q7)*

Central Message: An equitable Calgary is a place that empowers all citizens, especially marginalized populations, to be able to make their own choices. Providing accessible and affordable housing, transportation, services, and spaces to everyone can reduce the immense burden placed on these communities. The city can empower citizens by expanding financial supports, supplying transportation and services to low-income communities, providing information, and consulting. If Calgarians had more freedom to take more sustainable actions, they would likely do so.

- *i think one thing to consider would be lower income individuals regularly have to choose between housing, utilities, food, and transportation and make decisions each month on which they will and will not pay for. the rising costs of everything are making those decisions tougher and more impactful. (Q3)*
- *Allowing for people to get more interested in plants, outdoors, building relationships that allow for opportunities to build. these connections to earth. at the neighbourhood level. You don't need to go to mountains to build on connections. (Q2)*
- *All programs and communications delivered in multiple languages with context and cultural appropriate consideration. (Q4)*
- *When people are well settled, have good homes, that's when they can make better choices, such as buying better food, carpooling, active transportation, when their kids are well taken care of. (Q3)*

Equity Deserving Individuals

Central Message: ESP overwhelming desire greater choice and autonomy as they face equity and sustainability challenges. Improved transit, lowered energy costs, nearby green space, or space to share their experiences provide a lightened burden and the opportunity to focus on their carbon footprint. Folks are reasonably anxious about how these burdens impact their ability to face coming climate events, such as extreme heat or flooding, that threaten the well-being of their families.

- *Support a carbon tax, but dynamic where there isn't renter control over furnace etc in a house. So can't mitigate this issue if no control over heating method. (Q2)*
- *If there as a long power outage, the participant wouldn't have a place to store their food. A power outage would lead to food waste and a lot of cost for someone who can't afford it. Could there be a place in the community that they could store their stuff in a fridge/freezer? (Q3)*
- *The participant has been taking transit or the past 30 years. Stopped at the beginning of the pandemic when they were laid off and then they had a baby. They are trying to protect their family so they don't take transit much right now. They have a vehicle but don't use it much because they don't feel comfortable driving. Sometimes they get rides from family members now to protect their family from the pandemic. They haven't had to take their child on transit, so are not sure how that would feel. they are also very conscious of the gas and the emissions of driving. Sometimes they feel trapped as a non-driver because they can't get out of town. (Q2)*

Urgency, Priority, and Balance (275)

Internal Staff

Central Message: We need to not only make the right decisions, but also in a way that reflects the urgency of the climate crisis. Considering the equity of sustainable action could be prioritizing traditionally underserved neighbourhoods.

- *All neighbourhoods are able to recover quickly and have access to the resources needed to thrive. (Q7)*
- *Concern with lack of cycling infrastructure built - not happening fast enough. (Q2)*
- *We have this climate strategy, but we keep funding urban sprawl and new roads. we will have to live with these decisions for decades or longer. council needs to prioritize this work if it is to be successful. (Q1)*

Agencies and Community Organizations

Central Message #1: The sustainable progress of Calgary as a whole should take serious consideration of the distribution of benefits to Calgarians. There is a misbalance between marginalized and non-marginalized communities in access to transportation, green space, services and more. This should be remedied with a prioritization of equity-seeking populations.

- *Any outreach or communications or marketing should be designed and delivered by members of the communities to be not only effective but also equitable. (Q3)*
- *Public Services and Goods are used by everyone, most people on the lower income scale use public goods more often and therefore more emphasis should be placed on more public services. (Q4)*
- *Basic Needs are considered and everyone's basic needs continue to be met. (Q4)*
- *Critical access to supports and financial supports to assist vulnerable populations. (Q4)*
- *All Calgarians have equitable access and equitable benefit to the policies, processes, and programs offered by the City. (Q4)*

Central Message #2: Not only are the challenges facing vulnerable Calgarians detrimental, but the way in which government is addressing & prioritizing these challenges. Wealthier neighbourhoods have greater access to services, transport, green space, etc. despite much easier access to these. Prioritizing vulnerable populations in every facet of the City's work can help balance the scales.

- *Inequitable distribution of walking, biking infrastructure. (Q3)*
- *Equal distribution of funds and programs. (Q2)*
- *Community organizations are already facing intense financial pressures. Supporting these organizations will help them to contribute to climate action. (Q1)*

Equity Deserving Individuals

Central Message: The City must not only look to empower ESP, but to ensure equity is present in how populations and challenges are prioritized. The disparity between wealthy and poor/marginalized communities should be continually shrinking as green spaces, services, and infrastructure are provided.

- *Homelessness is rampant! never seen so many people on the street, provincial govt is not helping, people sleeping at Ctrain stations and all over, mental health issue is serious issue downtown, people are really suffering. (Q2)*
- *The landlord might prioritize their wants and needs over the renter. (Q2)*

Section #3: High Level of Attention

Housing (152)

Internal Staff

Central Message: There were many concerns that the improvement of a home or apartment building's emissions would raise prices, further exasperating housing instability. Renters are particularly exposed to this and lack control over the choices made about their home. Supporting tenants over landlords to meet needs, generates savings & benefits.

- *People have housing options that they can afford in every community. (Q7)*
- *How do we include renters? Landlords aren't typically keen to upgrade properties without mandates or incentives. (Q5)*
- *What about those who have less control over their housing such as renters and those living in multi-family housing (townhouses, apartments). (Q3)*
- *Cost of net-zero construction, and impacts on housing affordability. (Q3)*

Agencies and Community Organizations

Central Message #1: Affordable housing is in high demand, and low supply. The need for secure shelter is an obvious challenge to climate action, and the cash flow of many is too restricted to implement energy-savings measures that would save money in the long term. Calgarians need access to accessible, safe, affordable housing that they can have autonomy over to make sustainable changes.

- *Ensure that any net zero affordable housing that is constructed has safeguards in place to ensure it stays affordable in the long run. (Q2)*
- *95% of clients do not own their own homes. No control on how house is retrofitted. Renters need to have a mechanism to request or control aspects of their home. (Q2)*
- *Any home retrofit program should consider budget for health and safety measures - often the homes that are in the worst shape need health and safety measures considered before energy savings measures can be installed. (Q2)*

Central Message #2: Calgarians, especially renters, already struggle with rent, accessibility, and safety in their homes. Strategy should match retrofitting with subsidy/cost control efforts to ensure improved sustainability does not push vulnerable people out of their homes.

- *Home ownership is made into a privilege, not a right as they should be. (Q2)*
- *Affordable housing is important - but safety is not prioritized. Is it properly ventilated? Is there asbestos? How's is the landlord treating people? (Q3)*
- *Conflicting issues: Climate, housing crisis - does higher standard housing make it unaffordable? (Q1)*



Equity Deserving Individuals

Central Message: Accessible to housing, let alone housing with comfortable, safe, and well-maintained units, is well lamented. Social housing that is affordable and accessible must be increasingly built. Tenant rights and autonomy should be prioritized over landlords. Preparing homes for emergency weather events can reduce risk and improve longevity.

- *Calgary housing - drafty windows, heating - heat comes in through the hallways. Unit is so hot all of the time. Fireplaces are going to be removed, which may be a problem if the unit doesn't heat for some reason. (Q1)*
- *Could there be incentives specifically for rental properties? If people own a building where they live and a building they rent out, they would probably prioritize improving the place they live. But if there was an incentive specific to places that are rented out that might help. Improved properties might also be more appealing for future tenants. (Q2)*
- *(Hail storm) received insurance, would have been problems without insurance, insurance premiums have gone up. (Q3)*

Low Income, Rental, and Housing (147)

Internal Staff

Central Message: Cost of living in Calgary, particularly for renters, is too high leading to housing instability & lack of control over one's home. Housing is the largest financial concern here, and while it is recognized the retrofits such as energy efficiency would save low-income folks money in the long term, the up front cost is too prohibitive to make change. In general, low-income communities need aid before they can have the capacity to act more sustainably.

- *Recognition that low income citizens already have a lower consumption ratio than other groups (i.e. don't have as many cars, individual lawns, product delivery, etc.). (Q1)*
- *What about those who have less control over their housing such as renters and those living in multi-family housing (townhouses, apartments). (Q5)*
- *Consider how to include low-income/renters who rely on gig-economy work and their car. (Q6)*

Agencies and Community Organizations

Central Message #1: Low-income Calgarians face high rent prices, lack of control over their homes, more severe extreme weather impacts, and minimal access to services, supports, and decision-making. Prioritization of low-income communities in city planning, retrofitting, job creation, subsidies, and transit infrastructure is critical to reduce harm.

- *Folks renting in lower income dwellings don't have as much opportunity to participate in retrofits, rebates, etc. (Q2)*

- *95% of clients do not own their own homes. No control on how house is retrofitted. Renters need to have a mechanism to request or control aspects of their home. (Q2)*
- *Energy efficiency is better money spent for low income than renewables. (Q3)*
- *I think one thing to consider would be lower income individuals regularly have to choose between housing, utilities, food, and transportation and make decisions each month on which they will and will not pay for. the rising costs of everything are making those decisions tougher and more impactful. (Q3)*
- *Hail damage - financial burden - ability to adapt, climate risks depend on incomes (car no covered) (Q2)*

Central Message #2: This demographic of people were the most referenced group of concern to address in the climate strategy. The intersect of the housing & climate crisis leaves Calgarians without enough access to safe (from extreme weather, building damage or toxins, or harm), financially & physically accessible space & transportation, or autonomy to take mitigative/adaptive climate action.

- *How will buildings vacated be used for the homeless population? Instead of encampments. (Q2)*
- *How do low income renters get access to better homes? (Q3)*
- *Trickle down on rent structures impact on vulnerable populations (aging, financially vulnerable, not subsidized). (Q3)*

Equity Deserving Individuals

Central Message: Renters often feel at the mercy of their landlord. Decisions about retrofits or gardens, benefits from lowered utility bills, maintenance, and even unit temperature are out of renters' hands. Policy to ensure equitable distribution of benefits and decision-making could improve autonomy. For low-income populations, autonomy is a struggle without low (enough) cost transportation, housing, food, etc.

- *Policies specific to landlords that can affect the things that we cannot control as renters. (Q1)*
- *Some renters pay a portion of the utility bills. If the unit was made more energy efficient, the tenant might benefit too. But for tenants who don't pay the utility bill directly, they might not benefit from energy efficiency improvement. (Q2)*
- *Some people who are seeking affordable housing aren't always aware of their rights. It can be hard to ask landlords to make repairs when they're needed. Resources to support tenants to advocate for themselves would be helpful. (Q2)*
- *I wish there were more places that are self-serve and doesn't require folks to prove ID/ low-income status - Good neighbor, Food Pantries. (Q2)*



Citizen Focus, Consultation and Centering Equity (135)

Internal Staff

- N/A

Agencies and Community Organizations

Central Message #1: Decision-making needs to ensure all impacted populations are considered and heard from. Particularly, historically ignored populations such as low-income, or newcomers, need to be centered.

- *Specific communities traditionally feel left behind, so attention given to the lower socio-economic communities of Calgary. (Q4)*
- *How do we make sure that everyone is included? (immigrants and newcomers). (Q3)*
- *Consider unintended burdens on populations - e.g., who clears the bike lanes in front of houses, who rakes the leaves from city-owned trees. (Q3)*

Central Message #2:

To center these communities, the City needs to improve a. Consultation and b. Access. Consultation with ESP like this project, connect the real-world needs of Calgarians with strategy. Moving forward with climate strategy whilst major stressors (like affordable housing) are still present ignores deep intersectional connections influencing climate change. Access for all to decision-making, resources, and public space should also be prevalent in all areas of planning.

- *Information dissemination that is accessible, translated into plain language, and not scaring people. (Q3)*
- *Accessible for all, grass and walking paths as seniors /wheelchairs dont cross green space so how do we make it achieve both... Additionally building access (weight of doors stairs, proper handrails, snow clearing etc. (gathering spaces). (Q3)*

Equity Deserving Individuals

Central Message: Equity shouldn't just be a consideration in City strategy, but the centre of it. Prioritizing those most impacted can alleviate some of the burden of systemic inequality. To understand the needs of these communities, consultations & political access can provide a platform for unheard voices.

- *Instead of just saying "net zero" say "net zero via just transition." Net zero can't be just a playground for the rich. (Q1)*
- *Engagement sessions for different, specific communities. The City needs to do more outreach to different communities like racialized communities. (Q2)*
- *More City Council meetings and letting people know when they are. COVID has shut down opportunities to participate. (Q2)*
- *I wish there were more places that are self-serve and doesn't require folks to prove ID/ low-income status - Good neighbor, food pantries. (Q2)*



Externalized Costs to Consumers (135)

Internal Staff

Central Message: Corporations need to take greater responsibility for reducing costs to low-income communities (landlords), regulating easy disposal (product creators), and removing obstacles to evidence-based decision making. Improved transit and walkability will benefit small businesses. Greater consumer awareness and education is needed.

- *Externalized costs are how companies make profit. They minimize their spending by cost externalizing, which is basically a fancy term for the company offloading “indirect costs” on society or the environment. The easiest way to think about externalized costs is to think of them as effects caused by businesses when they “cut corners”. Externalized costs of capitalism tend to be hidden from the public eye. Companies hide their externalized costs because most of the time, the truth would be detrimental to the reputation of their business. Some major externalized costs of global capitalism include pollution, taking advantage of people and poor working conditions in other countries, cruelty, and health care. (Q1)*

Agencies and Community Organizations

Central Message #1: Costs incurred by corporations complying with new sustainability policies can be passed along to Calgarians. Retrofit requirements on landlords could result in a rent increase for already strained tenants. Equitable and transparent regulation of companies will be needed to support low-income people, suppress rising prices, and achieve lower carbon emissions.

- *Through the CEIP program, ensure this debt doesn't get passed onto tenants. (Q3)*
- *Use of foodbank rising, and cost of food is skyrocketing. (Q3)*

Central Message #2: The businesses of Calgary, particularly energy companies, landlords, and real estate, also have a large impact on the equity and sustainability of Calgarians. Access to financial & legal services, stricter regulations on landlords, and increased employment opportunities are suggested improvements.

- *Strategic partnerships to mitigate waste - how are we working with hotels to be sustainable? Access what they need. (Q2)*
- *Do away with the "economy vs. environment" narrative. (Q1)*
- *The city should have a policy before they invite developers. (Q1)*

Equity Deserving Individuals

Central Message: Businesses play a significant role in sustainability and equity. Landlords were frequently mentioned in this session. Policies and programs are needed to balance the relationship with tenants over rent, repairs, heating. Incentives or subsidies should ensure benefits are passed on to tenants. Business also shapes a community, and more equitable distribution of grocery stores, employment, and gathering spaces should be encouraged.

- *City should look into price-capping to make things more equitable, ex. utilities have to be paid by tenants who may not have the funds; split utilities between landlord and tenant; how to make utilities more efficient to make them more equitable for everyone. (Q1)*
- *Some landlords do try to transfer the costs to renters when they make upgrades to homes. Rent should cover the upkeep and mortgage. Landlords should be required to make upgrades and shouldn't pass along costs to tenants. (Q2)*
- *Companies need to listen. Capitalist and consumerist life and attitudes need to shift. (Q2)*
- *(Hail storm) received insurance, would have been problems without insurance, insurance premiums have gone up. (Q3)*

Financial Strain and Personal Finances (135)

Internal Staff

Central Message: The cost of a low-carbon lifestyle is prohibitive to populations already financially struggling. Cost is the most referenced barrier to sustainable progress through transit, retrofits, waste reduction, and more. The environment cannot be a priority to low-income people until the burden of financial strain is lessened.

- *Cost can be a barrier for low income citizens. (Q3)*
- *Reduce financi(a)l vulnerability of people on fixed incomes. (Q3)*
- *Low carbon transportation is often also low cost. Improving low carbon transportation infrastructure might help lower income folks. (Q3)*
- *May not be a priority for individuals with financial vulnerability. (Q3)*

Agencies and Community Organizations

Central Message #1: Being sustainable is expensive, and for many Calgarians, too expensive. The high cost of rent, utilities, transit, food, and more prohibit low-income people from common solutions such as replacing plastic or improving the energy efficiency of their home, due to high upfront costs. Folks are struggling to get by as it, and additional burdens that improve sustainability simply aren't an option.

- *What is the cost of retrofitting? Will it have an impact on the cost of affordable housing? How quickly can retrofitting be done? We need people in housing as soon as possible. People need somewhere to live while retrofitting in undertaken. (Q2)*
- *Accessibility issues for people with disabilities, for example ramps are so expensive, one of my colleagues with disabilities said it's around \$75000 and even houses are not built to accommodate them. (Q2)*
- *I think one thing to consider would be lower income individuals regularly have to choose between housing, utilities, food, and transportation and make decisions each month on which they will and will not pay for. the rising costs of everything are making those decisions tougher and more impactful. (Q3)*



- *Public Services and Goods are used by everyone, most people on the lower income scale use public goods more often and therefore more emphasis should be placed on more public services. (Q4)*

Central Message #2: With affordability at the top of mind for many ESP, climate action cannot come at the cost of additional financial burden to Calgarians. While retrofits can improve energy efficiency and utility bills in the long-term, the high upfront cost is simply inaccessible to those without capital to spare. On the adaptation side, the cost of recovering from extreme weather events, such as the hail storm, is also a significant burden.

- *Housing - buying a house, being able to gather enough money for a down payment, costs for heating and cooling homes...this is a big concern for New Canadians. (Q2)*
- *Programs that don't require borrowing / increasing personal debt. (Q4)*
- *Connected to poverty education strategy. (Q2)*
- *Rising costs of electricity and natural gas. (Q3)*

Equity Deserving Individuals

Central Message: The cost of living in Calgary is becoming more and more unaffordable to low-income residents. The burden of rent, utilities, insurance, food, gas, transit, and more keeps vulnerable populations exposed to stress, emergencies, and homelessness. People trying to survive can't prioritize climate action.

- *The cost for transit tickets can really add up over the week and it can be really close to the amount you would spend on fuel in the week. Unless you don't have a car to begin with, it can cost the same to take transit as it costs to drive a car. (Q2)*
- *The participant keeps the heat at 18 degrees even through the winter to keep the bills as low as possible (they can still be a few hundred dollars a month). (Q2)*

Urban Design, Walkability and Public Spaces (129)

Internal Staff

Central Message: Calgary needs intentional planning to improve walkability, access, green space and more. Continued issues of urban sprawl, unreliable or non-existent public or active transit options, and a growing gap between rich and poor neighbourhoods impede sustainability.

- *We have this climate strategy, but we keep funding urban sprawl and new roads. we will have to live with these decisions for decades or longer. council needs to prioritize this work if it is to be successful. (Q1)*
- *Can we use public boulevards for stuff other than grass? right now we can't naturalize or put in food gardens due to city regulation, for example. (Q5)*
- *Continuing to build cities for cars does not make them more liveable and can lead to continued sprawl which generally benefits a certain demographic and costs all taxpayers money. (Q6)*



Agencies and Community Organizations

Central Message #1: Implementing infrastructure to increase equity and sustainability should be considered on a city-wide scale. How does the design of the city encourage or inhibit low-carbon transit, less segregated neighbourhoods with balanced access to services, use of public space, and transitioning to a low-carbon energy system? Urban design should aim to improve accessibility through active transportation paths, wide-spread public transportation, and dispersed service & program providers. Even with the more sustainable EVs, the car culture of Calgary has taken over resulting in isolated communities, considerable impermeable surfaces, contributing to flooding and urban heat island effect.

- *For new affordable housing, make sure the units are integrated into the neighbourhood to encourage walking and low carbon transportation. Locate affordable housing in places where people can take advantage of low carbon transportation. But don't put all affordable housing on major transportation corridors. It's more about access to transit, not so much about only locating people next to major roads or in downtown. (Q2)*
- *Land use has a lot to do with this. A traffic jam made of EVs is still a traffic jam. (Q2)*
- *Space for low income people to just exist. warm in winter, cool in summer. there's no space to just exist.(Q3)*
- *People can only afford new homes in the sub-urbs- but no bus stops are build for 6 months to a year. mis- alignment between house affordability and transportation accessibility/affordability. (Q2)*

Equity Deserving Individuals

Central Message: Calgary is car-centric, with decentralized housing, and centralized services, transportation, green space, and business. There are many areas at risk of flooding. The disparity between wealthy and poor neighbourhoods is significant. Solutions suggested include stopping urban sprawl and neighbourhoods without accessible infrastructure, improving transit, and promoting green space.

- *Dense community centrered places. I would love to live, work, play in my own community. I don't want to travel from one end of the city to the other end to see doctor, grocery shop, etc.(Q1)*
- *Housing density may be good for the climate, but does force people to give up on yards (need access to a community garden). Try to find places for amenities in denser living areas within the City. (Q2)*
- *Calgary is a driving city. The city is built for drivers. People who don't drive are at a disadvantage. (Q2)*

Elderly, Youth, Newcomers, Persons with Disabilities (129)

Internal Staff

Central Message: Other marginalized groups also require unique considerations. Elderly were identified as often overlooked, both in care and as a resource. Along with people with disabilities, the elderly need public and active transit planning that provides accessible and nearby amenities with minimal barriers.

- *Some people have personal needs that can increase their waste creation (e.g. adults who need diapers).*
- *How can we ensure that these folks are not marginalized or charged more due to their disability? (Q6)*
- *Separated bike infrastructure supports childhood mobility - biking to school, friends house etc. Links to safety metrics. (Q5)*
- *Cost of living in walkable communities is high - will be important for seniors especially. (Q3)*

Agencies and Community Organizations

Central Message #1: Calgarians are impacted by climate change in many ways, and care should be paid to populations already facing systemic barriers. The elderly and disabled communities face significant accessibility issues and need more local provision of services. Newcomers might be at a disadvantage when preparing for a winter storm or receiving information.

- *Preparing for weather events - take that down to the basics for people, who may have NEVER experienced hail, let alone knowing how to prepare their house. (Q3)*
- *How is the City planning for future climate migrants? Are we tracking whether people are arriving in Calgary for that reason? How do we satisfy the infrastructure needs of climate migrants? (Q2)*
- *There is a big gap with newcomers for using natural areas, particularly when they're not located near where people live. It's intimidating to get to places like Nose Hill on transit. Opportunity to educate on the value of natural spaces. Newcomers are oriented to things like grocery stores, they should also be oriented to natural areas. (Q2)*

Central Message #2: Concern for other disproportionately impacted groups include elderly and people with disabilities facing inaccessible sidewalks, bus-stops, transportation, etc.; children's safety & well-being; and newcomers without knowledge about Calgary weather, energy, etc. Providing accessible information and services to these populations could alleviate some of their mitigation/adaptation burden.

- *Accessible transit for those with disabilities- connect to snow clearing, transit stations are accessible. Extreme snowfall with reduce access to public transport. (Q2)*
- *Affordable housing locations are not safe communities for children. (Q3)*

Equity Deserving Individuals

Central Message: There are many ways marginalized communities are impacted by inequitable or unsustainable practices that can go unnoticed. Accessible sidewalks for mobility-limited or mothers with strollers, elderly communication in emergencies, and even the safety of POC and their children on public transportation are cited as common struggles. The complex and nuanced ways each demographic is impacted by this strategy are critical to true equity.

- *People with special needs need special consideration. What if the power goes out and you need an elevator because you are in a wheelchair? What about old people? What about people with babies or young children? (Q1)*

- *I've experienced flooding in my apartment, really tough for those with mobility issues couldn't clean up the flood, Calgary Housing couldn't provide assistance for those in need, a senior fell down and it took a long time to get assistance. (Q3)*
- *Some other patrons on transit can be aggressive, unsafe, or racist. The participant doesn't want to expose their kids to this behaviour. (Q2)*
- *I think individualized considerations eg. Quebec's government subsidized mensural products ex period underwear or diva cups. (Q1)*

Health and Safety, Food security and Mental Health (127)

Internal Staff

Central Message: Infrastructure such as bike paths and public transit also improve Calgarian's health and safety. Food security is cited as a major benefit of a more accessible and balanced city. Mental health burdens, particularly on marginalized communities, of the climate crisis need to be addressed.

- *Reduced or no impact to individuals mental, economic and social wellbeing (Q7)*
- *Multiple spin-off benefits! Improved health, wellbeing, community coherence, etc (Q7)*
- *Separated bike infrastructure supports childhood mobility - biking to school, friends house etc. Links to safety metrics. (Q5)*
- *Climate action doesn't feel like a burden or unattainable (Q7)*
- *Better access to healthy food (Q6)*

Agencies and Community Organizations

Central Message: The climate crisis jeopardizes the health and safety of all Calgarians, particularly ESP. Extreme weather events, food inaccessibility, and climate grief can harm Calgarians.

- *Green spaces and parks are safe for people during climate events - people impacted mentally as well. (Q2)*
- *Opportunities for climate grief, injustice around climate change (e.g. 2020 hailstorm), and provide a space for conversations. (Q2)*
- *Newcomers need access to equipment to safely access natural areas. (e.g. skates, winter boots, information about what plants are poisonous, safety info around coyotes. Wildlife and winter are the major dangers). (Q2)*
- *Use of foodbank rising, and cost of food is skyrocketing. (Q3)*

Central Message #2: Wellbeing for all Calgarians is the top priority. Ensuring that mitigation actions do not harm (extreme weather, building retrofit integrity, etc.) particularly vulnerable populations. Ensuring that adaptation actions focus on those most likely to be harmed by climate change. Housing & food are rights, not privileges.



- *Most affordable houses are not in safe communities. Some houses are older with asbestos, not efficient - how do we retrofit? (Q2)*
- *Food security is a big problem for immigrant women - due to unemployment, limited employment. Hard to access food bank without ID. Many women don't have ample ID. (Q3)*

Equity Deserving Individuals

Central Message: Health and safety risks connected to climate change are increasing. The physical, and particularly mental, health impacts of summer smoke was widely mentioned. The housing and mental health crisis has made public spaces, such as transit stations, feel unsafe at night. On top of this, anxiety about future emergencies have folks concerned about their access to power, food, or escape without necessary infrastructure and support.

- *With smoke, it can also be really hard on mental health. Smoke can prevent people from taking walks, going to work at an outdoor job, or being in the garden. The participant isn't sure what can help but is mentally preparing for next summer when there might be lots of smoke again. (Q2)*
- *I'll add that with transit, we need to make sure that people feel safe in the stations. We've seen the stations used as warming shelters. This is completely understandable, but I believe it does negatively effect the transit (safety) experience for users. It's really made me think about how lack of support for the homeless community negatively affects other groups like transit users. If transit users turn into drivers of ICE vehicles, that's bad for the climate. (Q2)*
- *The participant is thinking about getting their own car, especially for emergencies. They also feel like a car is important when you have a child. Cars can be very important for safety and security in transportation with kids. (Q2)*
- *Floods and fires across the continent impact food prices in Alberta - gardens could provide more stability of food. (Q2)*

Buildings and Retrofits (122)

Internal Staff

Central Message: Construction and retrofitting needs to prioritize affordability and accessibility to have buildings that can be used sustainably for a long time.

- *Making building good places to age in place in well supported communities. will encourage people to move less, and require less new buildings as well. (Q5)*
- *When retrofitting, we should also make this infrastructure fully accessible for people with disabilities. (Q2)*
- *Lack of funding to support net-zero retrofits on large scale. (Q3)*

Agencies and Community Organizations

Central Message #1: Retrofits must be balanced with affordability. Beyond sustainability, retrofits to buildings should include improving accessibility to those with limited mobility, and preventing extreme weather damage.

- *Is it design choices? 'hammered look' - can we choose building materials that are suited for the long term - designed to last 1000 years. (Q2)*
- *What is the cost of retrofitting? Will it have an impact on the cost of affordable housing? How quickly can retrofitting be done? We need people in housing as soon as possible. People need somewhere to live while retrofitting is undertaken. (Q2)*

Central Message #2: Retrofits and new buildings should prioritize affordability and safety above all else - a sustainable building isn't equitable if a person with disabilities is unable to access it. Focus on repurposing empty downtown buildings for housing over urban sprawl.

- *Do adaptable-built homes reduce future costs? Upfront is still too high? (Q2)*
- *Most affordable houses are not in safe communities. Some houses are older with asbestos, not efficient - how do we retrofit? (Q2)*
- *Are we building out simply because we have the space? Is it economically/sustainably viable? (Q3)*

Equity Deserving Individuals

Central Message: The most common suggestion to improve building sustainability and equity was incentivization of landlords to invest in retrofits that ensure benefits are passed along to tenants. From better insulation to solar panels, there are many ways that buildings can be incrementally improved to reduce carbon and cost. There are also many buildings sitting empty due to Covid that could be converted into social housing.

- *Participant rents a small home and has been there for a few years. Has noticed that the bills are really high during the winter. Asked landlord to look at the roof to see if it could be more efficient. The roof was also leaking and causing black mould. Noticed a big improvement after the roof was replaced. Now working with the landlord to get things like door sweeps and weather stripping to improve efficiency. The landlord might help cover the cost of these small improvements. The participant has a good landlord but not all landlords are as supportive. (Q1)*
- *The participant has had trouble with some of their appliances like the dishwasher. The dishwasher runs for a couple of hours and the dishes are still not clean. It would be great if landlords were more open to making upgrades to appliances to improve energy efficiency. (Q2)*
- *I love office towers getting converted into residential. A big win. (Q2)*



Government Support- Support, Services, Programs and Subsidies (120)

Internal Staff

Central Message: Strong prioritization of supports and services for vulnerable populations & communities - East/North-East Calgary and low-income folks are particularly in need of aid, often financial aid.

- *\$ additional social services to have somewhere to take most vulnerable during these times - intake options for front line to take vulnerable citizens. (Q2)*
- *Feels like we'd have to pick winner and loser communities to support? (Q6)*

Agencies and Community Organizations

Central Message #1: Calgarians need a lot more support. Priority groups included renters/housing insecure needing financial aid & social housing options, or new Calgarians needing culturally accessible & necessary information about extreme weather, energy use, or recycling programs. While there were tangible suggestions such as creating more extreme weather centres, a majority of the comments called for greater provision of financially-accessible options (housing, food, transit) and resources (ex. accessible information, food banks, naturalization subsidies)

- *Newcomers need access to equipment to safely access natural areas. (e.g. skates, winter boots, information about what plants are poisonous, safety info around coyotes. Wildlife and winter are the major dangers) (Q2)*
- *Access to information: forms should be easy to fill out, available in multiple languages (ex. CEIP program), also culturally relevant communications. (Q3)*
- *Increased resources for BIPoC. (Q4)*
- *All Calgarians have equitable access and equitable benefit to the policies, processes, and programs offered by the City. (Q4)*

Central Message #2: Programs and services currently provided by the city fail to a. reach all vulnerable Calgarians, and b. provide reliable and impactful aid. Programs and services available in Calgary fall predominantly in wealthier neighbourhoods, and outside of easily accessible public transportation routes. Even seemingly small supports, such as snow clearing to make sidewalks accessible to mobility-limited folks, are vital to ensuring equity.

- *Fair Entry- the income cut off is arbitrary and doesn't assess the challenge for people. Someone making \$300 more than the cut off is not better off. (Q2)*
- *Continuity of service for vulnerable people accessing services that may be impacted by upgrades/retrofits/replacement. (Q2)*
- *Absolved costs from a client trying to rebuild their life (financial incentives, subsidies, etc.) (Q3)*



Equity Deserving Individuals

Central Message: Vulnerable populations need more support from the City. This support can come in the form of accessible information & resources, subsidization of low-carbon actions (ex. public transportation, energy efficient appliances), improving safety on transit, or preparing for climate emergencies.

- *People with covid symptoms cannot use Access Calgary, don't have other options to get to important appointments like dialysis. (Q2)*
- *Edmonton did a pilot program that turns fire hydrants into water fountains during extreme heat events. (Q2)*
- *I wouldn't know where to look for support and resources, especially in an emergency when you need to get out quickly, ex if a flood was coming an alert to phones would be helpful. (Q3)*
- *Some people who are seeking affordable housing aren't always aware of their rights. It can be hard to ask landlords to make repairs when they're needed. Resources to support tenants to advocate for themselves would be helpful. (Q1)*

Infrastructure and Construction (119)

Internal Staff

Central Message: Specific and immediate improvements suggested including better connecting & winterizing active transit routes to work centers, improved building lifespans and retrofits, an EV charging network, and traffic reduction methods are among those suggested.

- *Better transit and bike/walking infrastructure reduces the need for cars. (Q5)*
- *Bike lanes and bike parking are great for businesses. (Q5)*
- *Positive link to land use planning - this infrastructure supports more sustainable growth in the established area, which supports the MDP. (Q5)*

Agencies and Community Organizations

Central Message #1: The construction of new/improved sustainable infrastructure in Calgary should center accessibility, low-income neighbourhood improvements, and standardized health and safety measures.

- *Hard to tell in the sustainable building policy whether the standards for affordable housing are better or worse than for other buildings. The standard is different. Affordable housing should get to net zero first because it impacts the monthly bills for tenants. (Q2)*
- *How is the City planning for future climate migrants? Are we tracking whether people are arriving in Calgary for that reason? How do we satisfy the infrastructure needs of climate migrants? (Q2)*
- *Many refugee newcomers have construction experience. Is there an opportunity for employment? (Q3)*

Central Message #2: Construction or upgrade of basic structures across the city could improve their affordability, longevity, and sustainability. Creation of low-carbon transportation options & green space were

most often mentioned behind housing. A greater number of affordable housing units could be achieved by repurposing buildings vacated by the pandemic, retrofit subsidies, or ease of access to transportation. Extreme weather shelters for homeless.

- *Buildings past their lifespan, owned by government and identified in the capital strategy - speed of building, city approval procedure, expedited process. (Q2)*
- *Cost-efficient city building approvals. Can this process be streamlined to reduce costs and to offset the additional costs of building to a higher standard? (Q2)*
- *Some parks should have some exercise tools and bbq tools but if people wants to exercies, the infrastructure is not all availablesome parks should have some exercise tools and bbq tools but if people wants to exercies, the infrastructure is not all available. (Q3)*

Equity Deserving Individuals

Central Message: Infrastructure improvements are suggested on a large scale with measures such as extended public & active transport routes or power outage contingencies, to the important and overlooked details such as lighting, heated bus shelters, or micro-food gardens. In pursuit of improving accessibility to all, there are many ways to implement physical changes to Calgary that make it an easier and safer place to live.

- *I live right by the 12 Ave SW cycletrack extension through Sunalta and it also really does help me to use my bike more to commute into downtown to locations like the library or bars and restaurants. (Q2)*
- *Increased lighting for pedestrian pathways and sidewalks at night. Why are the streetlights pointed toward the street? Cars have headlights. Pedestrians need better lighting. (Q2)*
- *In the NE there aren't a lot of parks or green space to access. Some places also don't have sidewalks. There should be good quality infrastructure all over Calgary. This was also raised in anti-racism consultation. (Q2)*

Energy (114)

Internal Staff

Central Message: To reduce energy poverty, new infrastructure and retrofits should not make housing or electricity less affordable.

- *As EVs come on the grid and more demand of electricity happens, the cost of electricity will go up, and further push low income people into energy poverty. (Q2)*

Agencies and Community Organizations

Central Message #1: There is significant concern about balancing the reduction of carbon in Calgary's energy systems, and the financial impact on vulnerable populations. Housing affordability should not be



negatively impacted by retrofits/energy transitions. Energy efficiency is a channel for achieving both sustainability and equity by lowering usage and electricity bills. Upcoming energy projects should actively engage vulnerable communities.

- *Net zero should reduce energy poverty because it should reduce energy bills. With retrofitting we need to ensure that rent doesn't go up to fund the cost of retrofits. (Q2)*
- *Energy projects at this scale can only be realized for marginalized folks can only be heard if we're in multi bracket communities. (Q3)*
- *Access to information: forms should be easy to fill out, available in multiple languages (ex. CEIP program), also culturally relevant communications. (Q3)*

Central Message #2: Transitioning the city's grid from oil & coal to renewables is important, but must be balanced with raising utility costs for low-income folks.

- *Electricity grid in Alberta is still based on Coal. More priority to reduce electricity use/ move toward renewables. (Q3)*
- *Rising costs of electricity and natural gas. (Q3)*

Equity Deserving Individuals

Central Message: Energy is a critical point of intersectionality for Calgarians. There were many suggestions to improve efficiency from double-paned windows to modern heating & cooling systems. Energy outages, likely related to extreme weather, bring many folks anxiety about what to do (re: food, staying warm, accessing information). On a larger scale, carbon taxes and a transition to renewable energy are supported to aid with these goals.

- *Apartment heat is always high, don't need a sweater in the winter, shouldn't be that comfortable in the cold, building temps set high so residents don't have to worry about it...scary how much energy the building uses. (Q1)*
- *When the participant lived in Winnipeg, there was a kit that could be ordered from the city that had lots of energy efficiency items like tap aerators and weather stripping. (Q1)*
- *About a year ago, a squirrel got fried in Varsity and created a power outage for between one and two days in a largish area in Varsity. That was not good. I do not know what we would do with a longer power outage, effecting frozen food and so on and so forth. And the water in my building is shutdown for a day here and there for preventative maintenance or plumbing work - either by one unit or for the building. If water were to be shutdown for a few days, again, I do not know what I or others would do. I am not prepared for an emergency and doubt that many are. (Q3)*

Section #4: Moderate Matters

Public Transportation (92)

Internal Staff

Central Message: Improved transit systems, particularly in low-income neighbourhoods lacking them, provide strong benefits of both sustainability & equity. By reducing cars on the road, we can lower emissions and improve QOL. Transit should be accessible, physically and financially.

- *Access and choice in transportation allows people to stay in their homes longer if that's what they want. (Q5)*
- *Low carbon transportation is often also low cost. improving low carbon transportation infrastructure might help lower income folks. (Q3)*
- *EVs will not be accessible for all esp. disabled, rely on others systems for transport. (Q6)*

Agencies and Community Organizations

Central Message: Public transportation should be affordable (or free), accessible by all & across the whole city, and reliable (including reliable removal of snow from stops, etc.). The widespread nature of Calgary, intense winters, and car culture necessitate an extensive public transportation system. Improved dispersion, accessibility (ex. clear bus stops), affordability, and reliability are called for to transition more people to low-carbon options.

- *Being able to access supports, medical, food, etc that people need without being dependent on a vehicle. (Q2)*
- *Reimagine transit as a way of connecting the whole city rather than just connecting people to downtown. (Q2)*
- *Incentivize transit. Maintain transit subsidies for low income Calgarians. (Q2)*
- *Needs to be more attractive and fast for ALL ppl, not just low income - car rides are faster. Train has bad reputation. (Q2)*
- *For seniors: public transportation can be improved, but there are difficulties in seeing buses that are underused. how can we design it so that they show up when we need them/people need them? (Q3)*

Equity Deserving Individuals

Central Message: Transportation is needed on a much wider and more accessible scale. Unique concerns from this session were around the safety of public transportation - angry, racist, intoxicated, or Covid-positive transit riders make using this system harder, particularly for women and children. Increased security should be considered on trains and in stations.



- *Participant lives in the deep SE and it would take a four hour round trip to get to work on transit in another part of the SE. To take public transit the participant would need much better, reliable public transit with fewer transfers. (Q2)*
- *I have no vehicle and use Calgary Transit. The C-trains are okay, but most of the bus routes are not as good and, every year or two when changes are made, the changes make matters worse not better. In my humble opinion, my bus options seem to keep getting worse. (Q2)*

Policy, Government Commitments and Strategies (88)

Internal Staff

Central Message: All levels of government need to genuinely commit to mandatory action-based goals & strategies that align with expert opinion and social need.

- *Create standards that are mandatory for climate real, not nice to haves. (Q2)*

Agencies and Community Organizations

Central Message #1: Environmental policy should be more centered on the co-benefits to marginalized people - from ensuring net-zero buildings don't compromise safety, to social procurement strategies, to residential segregation, sustainable progress must consider impacts to Calgarians.

- *All Calgarians have equitable access and equitable benefit to the policies, processes, and programs offered by the City. (Q3)*
- *Connections between anti-racism and climate strategy conversations with Calgarians. (Q4)*

Central Message #2: To achieve this system's level change, strategy and policy at all levels of government should prioritize encouraging low-carbon action without compromising the wellbeing of vulnerable populations. Strategy that connects directly with poverty or infrastructure strategies can progress climate action with the lens needed to ensure no Calgarians fall through the gap. While these policies might be "challenging or uncomfortable" (Q2), these issues are too significant to not pursue a significant level of reform.

- *The city should have a policy before they invite developers. (Q1)*
- *Integrate the climate strategy with existing CoC policies such as the benefit driven procurement policy. (Q4)*
- *Equitable approach for incentivization of the climate action plan (information sharing). (Q4)*
- *What policies will be put in place to not eat away at organizational funds? (Q2)*

Equity Deserving Individuals

Central Message: Strategic equitable and sustainable policy change is needed on a city, provincial, and federal level. Housing policy should balance the relationship between tenant and landlord, and incentivize

energy efficiency actions that benefit renters. It should also establish significantly more affordable housing in livable neighbourhoods to reduce homelessness. Transit policy should create more reliable and widespread access. Mental health policy should reflect the severe impact of extreme weather, climate anxiety, or fleeing climate disasters.

- *A lot of policies are focused on people who are homeowners and drivers. What does getting renters and non-drivers to net zero look like? How can renters and non-drivers be included? (Q1)*
- *Link between a basic income and climate. If we can disconnect from consumerism and valuing people based on how much money they make, we could look at things from a more environmental lens. A basic income would help us be less focused on consumerism. Also, when people's basic needs are met they can contribute more to their communities. (Q2)*
- *Can we pass a law to allow apartment owners have the air conditioners without the board pass approval to the owners? (Q3)*

Evidence-Based Action, Science and Technology (86)

Internal Staff

Central Message: Scientific & evidence-based decision-making & implementation requires both consultation with experts and collection of data to create optimal plans. Taking inspiration from other cities and reducing "biased" (political/corporate desires) influence. Research around equity and community important as well as quantitative measures.

- *Use the targets set by climate experts (not influenced by politics/corporate agenda, etc.) (Q7)*
- *Need more education from industry experts on what the City needs to do for future electric vehicle demands and infrastructure needed to support an incoming demand for charging stations. (Q2)*
- *Need to look beyond the common standards and specs of building and understand research to build better and more efficiently for the future. (Q7)*
- *How would community resilience be measured? Who at table? (Q5)*

Agencies and Community Organizations

Central Message: Use best available information and technology in decision-making. This could be as simple as following heat research and planting shade-providing trees, to energy creation from bio gas or carbon capture. Technological improvements on energy efficiency, sustainable housing, and renewable energy use would most benefit vulnerable populations. On a larger scale, applying the appropriate lens (equity, sustainability, poverty, etc.) to all City strategies can "examine the intersectionality that exists" (Q1).

- *Power generation plants. Can we capture extra heat and carbon dioxide to use for growing food in a greenhouse? (Q2)*
- *How to measure the benefits and impacts of circular economy? (Q2)*
- *Lack of funding for capital costs for rooftop solar. (Q2)*



- *Inclusion of renewables in city planning process (LAPs). (Q2)*

Equity Deserving Individuals

Central Message: Replacing furnaces or improving insulation may not seem like major scientific solutions but energy efficiency was again top of mind when considering beneficial changes. Calgarians need the best available resources to prepare for increasingly extreme weather - air conditioners for summer, heating for winter, air circulation for smoke, and preparation for emergencies.

- *Smart meters: if you have a smart meter it can predict how much you'll be spending on energy use. (Q2)*
- *Mental health strategies need to be trauma informed. (Q1)*
- *In the case of power outages, how about some sort of vehicle providing a means to charge cellular telephones and possibly other battery powered tools? (Q3)*
- *For public transportation...when I traveled, a city had bullet shuttle c-trains that had no driver and came very frequently. I loved it. (Q2)*

Green Spaces, Nature and Water (85)

Internal Staff

Central Message: Access to green spaces, and protection of nature need to be seen across the city. Connection with BiodiverCity Strategy and Calgary River Valleys plan. Balancing economic & social improvement with natural improvement.

- *Access to natural areas for ALL Calgarians, not just the wealthy, i.e. ensuring natural infrastructure is built and restored in all neighbourhoods. (Q2)*
- *A more beautiful city, full of parks, gardens, orchards, meeting spaces, places where people can feel safe, seen & valued. (Q1)*

Agencies and Community Organizations

Central Message: Green space is undervalued and underutilized due to poor use of space, lack of /lack of access to green spaces in low-income neighbourhoods, and a disconnect between Calgarians and nature. Naturalizing your own space is expensive or difficult. However, naturalizing Calgary is a great mitigation/adaptation strategy with urban forestry to reduce the urban heat island effect or wetlands to reduce flooding.

- *Less policing of green space. (Q1)*
- *Can our city be designed differently to be more climate resilient? For example building wetlands into urban areas. (Q2)*



- *Communicating hazards e.g. unsafe ice access- relationship with physical space is important, and newcomers don't have that relationship yet, or you may have lived elsewhere and not experienced the hazards. (Q3)*

Central Message #2: Natural spaces are important to Calgarians, but are not available to all. Green spaces need to be established in low-income neighbourhoods, equitable with wealthier neighbourhoods, with infrastructure to support gatherings & winter use.

- *How do we innovate green spaces during the winter? ex. Shelters, heated areas. (Q2)*
- *Concerns on MR spaces and land approval - we need to set a % reserve for green spaces. (Q2)*

Equity Deserving Individuals

Central Message: Convenient green space is essential in building community, maintaining mental health, and fostering connection to nature. The difference in availability and quality of green spaces between wealthy and low-income neighbourhoods is stark. Unique suggestions to improve this disparity include encourage tenant gardening on rental properties, community gardening and outdoor education. Preparation for flooding is of high concern after previous floods.

- *Can some of the lawn surrounding buildings be used as gardens? The participant asked their landlord if they could put up a garden, the landlord said "people would just steal from it" and didn't let the participant put in their own garden. (Q2)*
- *Outdoor programs are becoming more common. But for equity seeking people, not everyone has the equipment needed to be outdoors for a long time. Could there be more supports and funding to help lower income people get equipment for outdoor activities? (Q2)*
- *In the NE there aren't a lot of parks or green space to access. Some places also don't have sidewalks. There should be good quality infrastructure all over Calgary. This was also raised in anti-racism consultation. (Q2)*

Extreme Weather and Emergency Planning (83)

Internal Staff

Central Message: The hailstorm really exposed the lack of emergency preparedness & danger Calgarian face, particularly marginalized populations. Visions of the future included a Calgary equally impacted by and supported after an emergency.

- *% of Calgarians equipped to handle climate induced weather events. (Q7)*
- *Advocacy with insurance companies to address impacts of extreme weather. (Q3)*
- *Lack of support to NE communities during the hailstorm. There is no way this would happen in other parts of Calgary. (Q2)*
- *How can you communicate effectively and reach vulnerable populations to prepare for extreme weather events. (Q2)*



Agencies and Community Organizations

Central Message: Preparations need to be made for before, and after an extreme weather emergency. Beforehand, the city should establish warming & cooling centres, distribute resources & information on common emergencies. After an emergency, Calgarians need equitable recovery of all communities, support for damages, and space to express climate grief.

- *City facilities play a critical role when temperatures are extreme. City buildings provide refuge from extreme heat and cold. (Q2)*
- *Hail damage - financial burden - ability to adapt, climate risks depend on incomes (car no covered). (Q2)*
- *There needs to be information about frequent climate issues too - dryness, Chinooks, normal snowfall, hail (e.g. new term like atmospheric river in BC). (Q2)*
- *Locations of housing with respect to snow clearing, flooding - more exposed to climate impacts. (Q2)*
- *Take lessons from the pandemic for emergencies, extreme weather. (Q2)*

Equity Deserving Individuals

Central Message: Calgarians have already experienced hail, extreme heat & cold, flooding, and smoke recently, and it makes many anxious about future emergencies. Already facing limited access to transportation or resources, ESP worry about their ability to escape, access water or power, and cope emotionally. Greater preparation, with education and emergency resources, is suggested to allow all to respond safely and equitably.

- *In the case of power outages, how about some sort of vehicle providing a means to charge cellular telephones and possibly other battery powered tools? (Q3)*
- *For pet owners, they can't use public transportation and taxi/ride share for their pets. How can they transport their pet in an emergency? (Q2)*
- *People need flood preparedness instructions to be ready for next time. (Q2)*
- *People with special needs need special consideration. What if the power goes out and you need an elevator because you are in a wheelchair? What about old people? What about people with babies or young children? (Q1)*

Cars and Electric Vehicles (80)

Internal Staff

Central Message: While EV's and their infrastructure was acknowledged as emissions-reducing, the priority is reducing car use as a whole, EV's are an expensive use of funding.

- *EVs at the cost of bikes and walking and transit? We don't have money for everything. (Q6)*
- *EVs will not help with congestion and will lead to building more lanes/interchanges that need to be maintained. (Q6)*



- *Continuing to build cities for cars does not make them more liveable and can lead to continued sprawl which generally benefits a certain demographic and costs all taxpayers money. (Q6)*

Agencies and Community Organizations

Central Message: The need for cars to access many parts of/services in Calgary is inequitable given their high cost. Focusing on EV's does not address the need for more widespread affordable transportation. The focus on car infrastructure in Calgary limits people's low-carbon transportation choices. Outlying neighbourhoods, those with disabilities, or commuters have to rely on expensive cars to access their needs. EVs should have reasonable consideration but not priority over public transportation.

- *Land use has a lot to do with this. A traffic jam made of EVs is still a traffic jam. (Q2)*
- *Location of services - many clients don't have access to vehicle. (Q3)*
- *Culture shift needed- Calgary is a car central city. (Q3)*
- *Distribution of EV charging infrastructure (need a plan). (Q3)*
- *Why are we focusing on EVs before having a walkable and accessible city? (Q3)*

Equity Deserving Individuals

Central Message #1: While folks acknowledge the negative impact of car-centric culture in Calgary, the lack of alternative reliable and low-cost transportation, particularly with children or in case of emergency, pushes them towards cars. Those without cars report relying on friends once a month to access groceries, feeling Covid-unsafe on public transportation, or walking long distances to work.

- *I moved downtown and got rid of my truck and never regretted it. Walk/bike/public transit is my life. (Q2)*
- *In an emergency it can be important to have your own vehicle. Non-drivers would have trouble if there was an emergency - they would need to get an uber, wait for a ride from family, or leave on foot. (Q2)*

Government Funding and Resources (79)

Internal Staff

Central Message: Proposed plans will be expensive and the current funding scheme for related issues such as transit & housing are inadequate for the necessary action. Social funding is just as important as sustainability funding.

- *Unless these actions are funded by the public sector, many people will be left behind. (Q1)*
- *It would be so easy to invest (again) in communities that are already very rich since many residents might have funds for individual upgrades to their homes. How do we invest in East Calgary? (Q6)*

Agencies and Community Organizations



Central Message #1: Funding shifts need to be made to more adequately support social housing, incentivize transit, and aid vulnerable populations.

- *Social housing should be prioritized - make homes more comfortable and increase affordability. (Q2)*
- *Critical access to supports and financial supports to assist vulnerable populations. (Q4)*

Central Message #2: With cost as a central barrier to taking climate actions to citizens and to improving low-carbon transport & buildings, the call for increased financial supports from the government were clear. Funding and use of resources needs to be directed to the already strained people and organizations of Calgary, who do have the capital for high up-front cost measures such as solar panels. Without affordability, low-income communities have their plates full and hands tied.

- *Community organizations are already facing intense financial pressures. Supporting these organizations will help them to contribute to climate action. (Q1)*
- *Lack of funding for capital costs to do upgrades / renovations. (Q2)*
- *Equitable approach for incentivization of the climate action plan (information sharing). (Q4)*

Equity Deserving Individuals

Central Message: Funding for intersectional solutions such as public transportation, or energy efficiency benefit both the environment and ESP. Incentives for rental retrofits such ensure savings are passed on to renters. Resources to prepare for emergencies or improve energy efficiency at home could be provided to low-income folks.

- *Could there be incentives specifically for rental properties? If people own a building where they live and a building they rent out, they would probably prioritize improving the place they live. But if there was an incentive specific to places that are rented out that might help. Improved properties might also be more appealing for future tenants. (Q2)*
- *Can the Fair Entry thresholds be adjusted higher as the cost of living goes up? At the start of the pandemic when the participant tried to apply, it was based on their wage from before the pandemic. The participant just stopped taking transit because they didn't have the money. Could a social worker be at the Fair Entry counter? (Q2)*
- *I think individualized considerations e.g. Quebec's government subsidized menstrual products ex period underwear or diva cups. (Q1)*

Education, Changing Behaviour and Raising Awareness (77)

Internal Staff

Central Message: Greater communication is needed in both directions - the City needs to learn from the experiences and priorities of unreached populations, and people (particularly those without previous access such as low income and newcomers) need awareness and education on how to mitigate their climate input, and prepare to adapt.



- *Lack of targeted awareness and education to equity deserving communities. Applies to both sections. (Q2)*
- *Communication will play a key role on what is being done, why is it being done and how is it being done and what evidence do we have. (Q1)*
- *These concepts are overwhelming. incorporate different cultural ways of communicating to create buy int(o). (Q1)*

Agencies and Community Organizations

Central Message #1: Suggestions around this theme fell largely into two categories: a. Ensuring all communication is accessible with simple language & multiple languages, and b. Providing essential information to those who many not have it already, ex. Newcomers on weather conditions, Calgary "life hacks".

- *More than translation - consider contextualization and different/more messaging and context. Ex. translating copy that is designed for people who have lived in Calgary all their lives and have more education and understanding will not work for many newcomers. Messaging needs to change and adapt to their needs. (Q2)*
- *There is a big gap with newcomers for using natural areas, particularly when they're not located near where people live. It's intimidating to get to places like Nose Hill on transit. Opportunity to educate on the value of natural spaces. Newcomers are oriented to things like grocery stores, they should also be oriented to natural areas. (Q2)*
- *Preparing for weather events - take that down to the basics for people, who may have NEVER experienced hail, let alone knowing how to prepare their house. (Q3)*
- *Some newcomers to Calgary lack the literacy skills to even read in their native language, so different communication methods are considered. (Q3)*

Central Message #2: Education is needed a. On climate actions you can take (ex. How to compost), b. On adaptation measures (ex. Hail proofing your home), and c. Formally, through schools and job training. Public education through awareness campaigns or signage can reach isolated communities.

Communication needs to be culturally and contextually accessible, with plain and multiple languages.

- *Accessibility of education - People looking to just survive, not enough time to spend on personal climate research - ex. Affording a green bin to compost (Q2)*
- *Information dissemination that is accessible, translated into plain language, and not scaring people. (Q2)*

Equity Deserving Individuals

Central Message: Communication from the City on important and unknown issues can minimize harm during an emergency or educate citizens on sustainable & equitable choices. Calgarians can also look to new educators such as climate refugees and youth.

- *Guidance from the city on how to deal with the smoke beyond just staying inside would be helpful! If smoke were only a once in a while kind of thing, staying inside would be good advice. But if the smoke is here every summer I think we need more options for how to live/deal with it. (Q2)*
- *Does the city have language support for languages other than English? We do have interpretation through 311 but could do better. (Q1)*
- *Some people who are seeking affordable housing aren't always aware of their rights. It can be hard to ask landlords to make repairs when they're needed. Resources to support tenants to advocate for themselves would be helpful. (Q2)*
- *I wouldn't know where to look for support and resources, especially in an emergency when you need to get out quickly, ex if a flood was coming an alert to phones would be helpful. (Q3)*

Active Transportation (65)

Internal Staff

Central Message: Biking and walking present healthy and sustainable transit options but need infrastructure to improve their effectiveness and use. This includes paths, as well as safe bike parking, low cost repairs, and winterization.

- *Happy people of all ages biking around and smiling. (Q7)*
- *Bicycle parking in places that people want to go - e.g. places youth hang out, grocery stores etc. (Q5)*
- *Build a bike programs for low income/youth to get free bicycles. (Q5)*
- *Encourage winter riding: free studded tires. (Q2)*

Agencies and Community Organizations

Central Message #1: Widespread transportation networks to connect the city.

- *The pandemic makes it difficult for people to want to use low carbon transportation. (Q2)*

Central Message #2: Improving neighbourhood walkability (ex. clear sidewalks) viability (ex. food, work, green space) is a solution that improves equity and sustainability at the community level. On a larger scale, networks of biking and walking paths (with winter adaptations) can make the entire city more affordably accessible.

- *Hard for people to get around- people live in food deserts, let alone a job interview. (Q2)*
- *Inequitable distribution of walking, biking infrastructure. (Q3)*
- *Cycling - can't get sidewalk clean or across the street after snow storm - we need to deal with fundamental issues - we aren't being inclusive as a city. (Q3)*

Equity Deserving Individuals



Central Message: Expanded walking and biking routes around the city should also prioritize being well-maintained, safe, and winter-friendly. Active transport has benefits on mental and physical health but concerns were raised about the impact of smoke/extreme heat & cold have on using this mode of transport safely.

- *Cycling - like progress on cycle track network (could have come faster). Would like to see better connections with existing infrastructure like Crowchild, Deerfoot etc. Needs to be as convenient as driving. (Q2)*
- *Having well maintained walking paths, paths are connected, fenced off from cars/rocks from the road, brightly lit high volume walking paths, feeling safe. (Q2)*
- *The participant does lots of walking with their son. It's also good exercise. The participant lives in the NE and some people say it's not safe, but the participant still walks. You need to be careful and aware of your surroundings. (Q2)*

Setting Attainable & Actionable Goals & Understand the Issues Holistically (55)

Internal Staff

Central Message: We need actionable and tangible goals for the short and medium term, rather than aspirational long-term promises. Targets should be driven by science & equity.

- *Equity doesn't come for free. Does Council have the political appetite for meeting these costs as opposed to embracing the vague comfort of aspirational goals? We need to stay away from these goals as they can brush action under the rug. Stick to tangible action, not high level aspirational goals. (Q1)*
- *We need to set goals that would actually result in a change rather than ones that we already know we will meet. (Q1)*

Agencies and Community Organizations

Central Message #1:

To achieve real equity, our systems need to be more holistic, intersectional, and people driven. This can happen at the Provincial and Federal scale by identifying barriers and increasing supports.

- *Provide education and support that is holistic and based on the needs of the people not the needs of the City. (Q3)*
- *Don't reinvent the wheel - support and expand programs that are working in the community. (Q5)*

Central Message #2:



The connections between climate and equity through housing, transportation, and even our cultural perception around these themes necessitate change at a system's level. This could come by applying an equity lens to all of the City's work, and ensuring Calgarian's wellbeing is the centrepoint of climate action.

- *When people are well settled, have good homes, that's when they can make better choices, such as buying better food, carpooling, active transportation, when their kids are well taken care of. (Q3)*
- *Being careful to ensure that this equity strategy is focusing or using gender based analysis and carefully examining the intersectionality that exists. (Q1)*
- *In being equity oriented considering how the city can/will maneuver to truly utilize an equitable lens for different sectors rather than lumping. (Q1)*
- *Do away with the "economy vs. environment" narrative. (Q1)*

Equity Deserving Individuals

Central Message: The vision for how Calgary should run as a whole prioritizes safe & affordable housing, a shift from a car to low-carbo transportation city, and unity. The strength of the climate strategy is tied to the strength of the community & Calgarians caring for one another.

- *Climate actions and a better society are really closely connected. For example, with COVID people are working from home which helps us make less emissions. The City could set an example and provide that working flexibility. Larger corporation are the ones causing emissions and could change their workplace policies to be more flexible for workers and to reduce emissions. Workplace flexibility would also allow people to stay home during extreme weather events. (Q2)*
- *A feminist lens should be used when preparing for climate change in the future because women and children are impacted most. (Q2)*
- *Looking at the future generations. Need to listen to the ways that our small changes can add up and make a difference. No one wants to take the time to listen and change their behaviours (e.g. composting, using less electricity, changing water system). (Q2)*

Monitoring and Regulation (52)

Internal Staff

Central Message: Enforcement is necessary to ensure political changes are reflected in real, lasting change.

- *(Consumption and waste) requires stronger regulatory framework to ensure compliance among operators. (Q3)*



Agencies and Community Organizations

Central Message #1: Ongoing action is needed to ensure sustainability and equity policies are being upheld and translating into real-world change. Consistent monitoring of retrofitting safety regulations, energy stability, and even city process accessibility can keep an eye on area of future concern.

- *Any home retrofit program should consider budget for health and safety measures - often the homes that are in the worst shape need health and safety measures considered before energy savings measures can be installed. (Q2)*
- *Developing process and permits when people are doing City events they they're accommodating to the new rules etc. (Q2)*

Central Message #2: The development of low-carbon infrastructure and buildings require attention to be paid to their overall safety and quality first. Homes with asbestos shouldn't prioritize retrofits, the wellbeing of tenants should come before or alongside these improvements.

- *Minimum building efficiency for apartments. (Q4)*
- *Stop allowing putting cement on the ground and address urban heat island. (Q2)*

Equity Deserving Individuals

Central Message: Consistent monitoring, maintenance, and repair of City infrastructure & housing can improve sustainability & equity, as well as longevity. Provisions such as snow clearing, transit maintenance, water & energy stability, or garbage removal are essential to a community but lack the funding & staff needed to maintain quality service.

- *At a park near the participant's home, the city wasn't able to keep up with the garbage. The community actually put up a sign asking people to take their garbage home because there wasn't enough city maintenance in this park. (Q2)*
- *Building standards - passive insulation for houses needs to be compatible with air circulation. (Q2)*

Section #5: Small, But Still Mighty

Economy and Jobs (41)

Internal Staff

The Calgarian economy needs to be shifted to benefit low-income and marginalized communities, to avoid instability in the face of emergencies & disasters, and to value the environment.

- *Equity deserving groups experience the benefits of the climate driven economy and society. (Q7)*
- *Resulting savings from retrofits increases discretionary spending in local economy. (Q5)*
- *Economics can trump beauty. (Q2)*

Agencies and Community Organizations

Central Message #1: As the City pursues sustainability, it should prioritize providing good jobs through social procurement, whilst addressing the rising prices of nearly all necessities.

- *Social procurement policies: are we hiring locally? Are we hiring folks who haven't had other economic opportunities? What role does the city play in social procurement? (Q2)*
- *I think one thing to consider would be lower income individuals regularly have to choose between housing, utilities, food, and transportation and make decisions each month on which they will and will not pay for. the rising costs of everything are making those decisions tougher and more impactful. (Q3)*

Central Message #2: Low-carbon job creation, training, and distribution within Calgary can work to mitigate both climate change and the rising financial pressure on all, but particularly low-income populations.

- *Job creation, frontline services need adequate training, education. (Q2)*
- *Rising costs of electricity and natural gas. (Q3)*
- *People should be able to work within their community to reduce pollution/driving. (Q2)*

Equity Deserving Individuals

Central Message: Many Calgarians have to compromise sustainability to get to or do their jobs. The public transportation system is neither widespread nor reliable enough (hire more drivers) to replace a car, though both are reported to be too costly. Basic universal income was suggested.

- *The participant has trouble with robberies at work. Concerns about safety at work. (Q2)*
- *Link between a basic income and climate. If we can disconnect from consumerism and valuing people based on how much money they make, we could look at things from a more environmental lens. A basic income would help us be less focused on consumerism. Also, when people's basic needs are met they can contribute more to their communities. (Q2)*



- *Sometime when you're waiting for a bus there aren't enough bus drivers on the route. Having more drivers might help with timing. (Q2)*

Equity Deserving Individuals

Central Message: There is too much waste in Calgary. From litter in streets & parks, to wasteful energy practices, to lack of recycling options, Calgarians feel overburdened by the amount and complexity of their trash. Suggestions include community cleaning days, accessible recycling centres, and managing litter.

- *No recycling in the building for batteries, paint etc. So they go in the garbage - no way to get it to a safe recycling place. (Q1)*
- *An annual community cleaning day helping to keep his community clean: We need more of that. I am in Varsity and, while I pick up garbage pretty much daily, I can only pick up a tiny percentage of the amount of the litter that is everywhere. The litter in this city is disgusting, especially downtown. I really wish that the city would hire people to keep downtown clean. It is unfortunate that so many people litter, but I do not see that going away. So, please hire people to keep at least the downtown clean. (Q2)*
- *Renting crowded houses and basements - garbage overflowing - concerns in NE Calgary. (Q2)*

Waste and Recycling, Pollution Reduction (39)

Internal Staff

Central Message: Waste management systems that reduce the burden on individuals to make environmentally friendly decisions need to come from the top-down. Reducing waste going to the landfill could be done by connecting low-income people with reusable furniture, clothes, etc., improving recycling/compost availability & education, and monitoring dumping more closely.

- *Implementation of systems that require even more time/work from individuals. This is another way of downloading the solution to the individual consumer rather than holding producers accountable for their products/waste/emissions. (Q6)*
- *How do we connect people who need stuff (furniture, clothing, etc.) with used goods that would be sent to the landfill? Last time I was at the landfill, lots of perfectly good stuff was being thrown out! (Q6)*

Agencies and Community Organizations

Central Message #1: Waste represents a significant challenge but has opportunity for simple impactful changes. This includes promoting "imperfect" products or foods, simplifying recycling, and regulating companies who produce a lot of waste, such as construction.



- *Making it easy to understand and consistent around what waste is. How many times to you look at a picture of "what's recyclable?" and just throw it in the trash because you don't see your item reflected. (Q3)*
- *Kinsugi - celebrate imperfection. (Q2)*

Central Message #2: Managing individual waste should be simpler. Providing education and resources on recycling & composting or partnerships between businesses and/or agencies to divert waste are suggested.

- *People should be able to work within their community to reduce pollution/driving. (Q1)*
- *Diversion through partnerships - ex. Food waste reduced through partnerships like juicing, etc. Non-city partners to manage waste. (Q2)*
- *Stigmatization of waste generation at an individual level. (Q3)*

Snow and Snow Removal (38)

Agencies and Community Organizations

Central message: Intense Calgary winters and snowfall present challenges to people with limited mobility, high energy bills, and reliability of transport. Ensure that snow clearing is equitable across neighbourhoods.

- *Snow clearing of sidewalks and transit stops, not only roads. (Q2)*
- *Snow clearing schedules, transportation access, etc. may not seem like a climate action but are. (Q1)*
- *How do we innovate green spaces during the winter? ex. Shelters, heated areas. (Q2)*
- *Locations of housing with respect to snow clearing, flooding - more exposed to climate impacts. (Q2)*

Equity Deserving Individuals

Central Message: Intense Calgary winters make active transport, heating your home, and mental well-being more difficult to access. Improved snow clearing schedules and energy efficiency are suggested.

- *When there is a lot of snow, it can be hard to get around and out of the home when using a stroller. For the most part, the landlord takes care of snow removal, but sometimes the tenant needs to shovel the snow. (Q1)*
- *The landlord tried to keep the unit at a comfortable temperature but told the tenant they legally only needed to keep the unit at 16 degrees. The participant is very worried about being cold in the winter! (Q2)*

Climate Action, Refugees and Climate Grief (31)

Agencies and Community Organizations

Central Message #1: Suggestions for encouraging climate action included stigmatization of waste & driving, or policy education. Most comments however, centered on providing Calgarians with the capacity to act - folks trying to survive can't take on this burden.

- *The ways in which redlining effects the climate crisis. (Q3)*
- *Connections between anti-racism and climate strategy conversations with Calgarians. (Q3)*
- *Many refugee newcomers have construction experience. Is there an opportunity for employment? (Q2)*
- *Actions don't have to be called climate actions, For example, increasing minimum wage is a climate action. (Q1)*
- *People don't know how to advocate for themselves- people need to understand how to use the policy. (Q3)*
- *Equitable approach for incentivization of the climate action plan (information sharing). (Q4)*

Central Message #2: Considerations of climate change need to be integrated into all aspects of the City's work. Communication about climate change particularly needs to be accessible (plain & multi-language) and not exasperating climate anxiety & grief.

- *Accessibility of education - People looking to just survive, not enough time to spend on personal climate research - ex. Affording a green bin to compost. (Q2)*
- *Information dissemination that is accessible, translated into plain language, and not scaring people. (Q2)*
- *Integrate the climate strategy with existing CoC policies such as the benefit driven procurement policy. (Q4)*

Equity Deserving Individuals

Central Message: There are many opportunities to connect climate action to creating a better society, but it's important to make sure that all Calgarians are considered and represented when decisions are being made. A trauma-informed approach is necessary, both to help people who are climate refugees and people who may be experiencing eco-anxiety due to current and future events.

- *Climate actions and a better society are really closely connected. For example, with COVID people are working from home which helps us make less emissions. The City could set an example and provide that working flexibility. Larger corporation are the ones causing emissions and could change their workplace policies to be more flexible for workers and to reduce emissions. Workplace flexibility would also allow people to stay home during extreme weather events. (Q2)*
- *Predictable disasters are coming, and citizens need a channel to aid and help with the challenges, ex. flooding. (Q2)*
- *Without clean energy from the grid, can't reduce carbon footprint - need clean energy options. (Q2)*



- *Calgary is a diverse place and many people who live here have experienced trauma here or before they lived here. Climate refugees in particular may come with trauma and need supports. We can also learn from people who are climate refugees because they know how to survive in climate emergencies. (Q1)*
- *RE Mental health: I'm thinking about some kind of climate support system or group? There are probably barriers to accessing therapy etc., and I don't know that traditional therapy is really what we need when thinking about eco-anxiety etc. (Q2)*

Agency & NGO Engagement and Funding (21)

Internal Staff

Listening to and prioritizing the voices of marginalized communities is vital to create strategy that is realistic and benefits all Calgarians. They are experts that need to be at the table consistently.

- *How would community resilience be measured? Who at table? (Q5)*
- *We hear the voices of equity deserving folks with regard to climate and we take action on what they tell us. (Q7)*
- *Consider intersectionality & spectrum of each population (e.g. low to mid, to high seniors in income and in carbon output). (Q5)*

Agencies and Community Organizations

Central Message #1: Agencies and non-profits represent an underutilized connection to Calgarians, and provider of services. Additional consultation with, and funding of, these organizations will benefit people and the environment.

- *Use people who work at the agencies to collect information and speak with community members. This would make clients more comfortable. (Q1)*
- *Supporting agencies to create welcoming spaces that are functional and meet the needs of community. (Q5)*

Central Message #2: NGOs represent a significant and overworked connection to community. The lack of sufficient funding, resources, or engagement with these organizations underutilized important knowledge sharing & collaboration opportunities. The City should also strive to make partnerships with businesses to access these opportunities.

- *Community organizations are already facing intense financial pressures. Supporting these organizations will help them to contribute to climate action. (Q1)*
- *Diversion through partnerships - ex. Food waste reduced through partnerships like juicing, etc. Non-city partners to manage waste. (Q2)*



Equity Deserving Individuals

Central Message: Non-profits, religious institutions, and community centres provide alternatives to gaps in support. The strength of this support, however, needs to be improved with emergency planning, funding, and equity-trained staff. Partnerships between the City and utility companies could improve energy affordability.

- *NE Calgary - mosque provides shelter and food, but is not well connected to rest of City to help people not in the NE. (Q2)*
- *Would like to strengthen partnership between City and ENMAX/other utilities to provide opportunity to reduce water costs, or provide opportunities for low income people to reduce costs. (Q2)*
- *Supplies at the community resource centre? Yes to street level support. (Q3)*

The Pandemic (19)

Agencies and Community Organizations

Central message: Lessons and experiences from the pandemic can be used to support Calgary's climate change response.

- *Take lessons from the pandemic for emergencies, extreme weather. (Q2)*
- *Can we repurpose existing buildings to support equitable housing- so much vacancy now with covid. (Q3)*

Equity Deserving Individuals

Central Message: The pandemic has made work, transit, and community significantly more difficult for already burdened Calgarians. Folk's report feeling particularly uncomfortable on public transportation due to exposure and a steep rise in those using these spaces as shelter.

- *The government must act urgently to protect people experiencing homelessness due to the Omicron. I heard that this pandemic is causing people to lose the place they're renting or temporarily staying at. (Q2)*
- *The participant used to take public transit but with the pandemic they use their own car more now. It will be hard to go back to public transit now that the participant is used to using their car. (Q2)*
- *Not all people have the option to work from home. (Q2)*



High Emitters & Income Inequality (14)

Internal Staff

Central Message: The burden of mitigation and adaptation is placed disproportionately on those who likely live a low carbon lifestyle and face more severe consequences.

- *Incentives to encourage high emitters to participate in this plan. (Q5)*
- *There are no consequences for those who contribute much more waste and use more resources (wealthy Calgarians). (Q2)*

Agencies and Community Organizations

Central Message: There is a great disparity in the way the city is designed which unfairly disadvantages lower income folks who generally emit less than wealthier people.

- *So much concrete in this city. Trees are disproportionately in higher income neighbourhoods. (Q3)*
- *Less residential segregation. (Q4)*
- *Density is needed but also not just in inner city away from community supports playgrounds schools, we seem to favor one population in one building and in the core verses neighborhoods. If we want inclusion, we need to ensure nimby is eliminated. (Q2)*

Equity Deserving Individuals

Central Message: More policy development and support are needed to support renters, non-drivers, and lower income folks to 'net zero', focusing on equity and not leaving anyone behind.

- *A lot of policies are focused on people who are homeowners and drivers. What does getting renters and non-drivers to net zero look like? How can renters and non-drivers be included? (Q1)*
- *Instead of just saying "net zero" say "net zero via just transition." Net zero can't be just a playground for the rich. (Q1)*
- *If it's a cheaper place that you're renting, the landlord might not care about climate and maintenance. It can be a battle to get the landlord to maintain the unit. In more expensive units the landlords might be more responsive. (Q2)*

First Nations, Traditional Knowledge and Reconciliation (9)

Internal Staff

Central Message: Indigenous expertise and traditional knowledge should be far more incorporated into Calgary's policies, planning, and action.



- *Higher value placed on other thought systems - i.e. indigenous world views. (Q5)*
- *Challenge antiquated colonial concepts. (Q5)*
- *Failure to embed Indigenous Ways of Knowing in water management. This refers to seeing our resources as part of an integrated whole. (Q2)*

Agencies and Community Organizations

Central Message: Indigenization efforts, going deeper into the work of Truth and Reconciliation, and questioning the status quo of the way our lives are designed in the urban environment are all important and urgent areas to focus on.

- *Indigenize - what approaches might we need to use. (Q3)*
- *Reconciliation is baked into everything. (Q4)*
- *Should we be watering our lawns? Should we have lawns at all? What is the alternative to lawns? Tie into Indigenous knowledge. (Q2)*

Equity Deserving Individuals

Central Message: Indigenous people are more vulnerable to the effects of climate change. At the same time, Indigenous teachings and Traditional Knowledge can offer valuable solutions and approaches to dealing with climate change.

- *From an Indigenous perspective (specifically Indigenous fire keeping practices), planting certain trees can be fire retardant. In new neighbourhoods, planting trees can also help with climate change and could keep neighbourhoods shady and cool in the summer. (Q2)*
- *Indigenous people are more sensitive to climate change and are considered water and land protectors. If others would listen to Indigenous people it would be very good for the mental health of Indigenous people. People are thinking very short term and not about the next generation. Indigenous people are thinking about seven generation in the future and if more people thought this way it might change their decisions regarding climate change. (Q2)*

BIPOC/Anti-Racism (8)

Agencies and Community Organizations

Central Message: Increased resources are needed for BIPoC individuals and communities.

- *Increased resources for BIPoC. (Q4)*

Equity Deserving Individuals

Central Message: The City needs to do more around targeted outreach and engagement of racialized communities.



- *Engagement sessions for different, specific communities. The City needs to do more outreach to different communities like racialized communities. (Q3)*

Policing and Power (7)

Agencies and Community Organizations

Central Message: There is a power imbalance, and more vulnerable people need to feel safer and can move around the city without fear. Racialized policing of green spaces is of particular concern.

- *There is a power imbalance between Calgarians and the city. Need to create a safe space so people can share their lived experience freely and openly. (Q1)*
- *Space for low-income people to just exist. warm in winter, cool in summer. there's no space to just exist. (Q3)*
- *Less policing of green space. (Q2)*

Equity Deserving Individuals

Central Message: More security is needed on transit as well as for people using active modes of transportation.

- *Could there be more security on transit? More visible security. (Q2)*
- *The participant walks and cycles. They have a device called an "ora" connected to your phone. If you press the button it can call the police and your emergency contacts. Gives the participant peace of mind. The device can be expensive though (maybe \$100). It also tracks your location to tell the police where you are if you're in trouble. Concerns about violence against women and violence from a former partner. (Q2)*
- *With transit, we need to make sure that people feel safe in the stations. We've seen the stations used as warming shelters. This is completely understandable, but I believe it does negatively effect the transit (safety) experience for users. It's really made me think about how lack of support for the homeless community negatively affects other groups like transit users. If transit users turn into drivers of ICE vehicles, that's bad for the climate. (Q2)*



Verbatim Comments

Due to the high volume of comments received, the complete verbatim report is available as a separate document [here](#).

Verbatim comments presented in this report include a sample of feedback, suggestions, comments, and messages that were collected online and in-person through the engagement described in this report. Input has been reviewed and provided to Project Teams to be considered in decision making for the project.

Any personal identifying information has been removed from the verbatim comments presented. Comments or portions of comments that contain profanity, or that are not in compliance with the [City's Respectful Workplace Policy](#) or [Online Tool Moderation Practice](#), have also been removed from participant submissions.

Wherever possible the remainder of the submissions remains. No other edits to the feedback have been made, and the verbatim comments are as received. As a result, some of the content in verbatim comments may still be considered offensive or distasteful to some readers.

Appendix A- Calgarian and Urban Indigenous Demographics

Question: Which population group(s) do you identify with (select all that apply)? These response categories are based on those used by Statistics Canada.

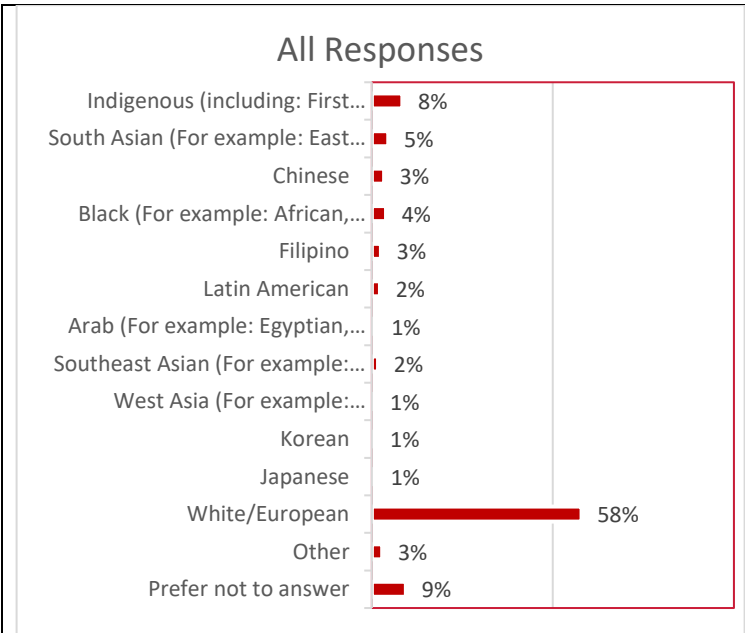


Figure 1- Population Group: All Responses

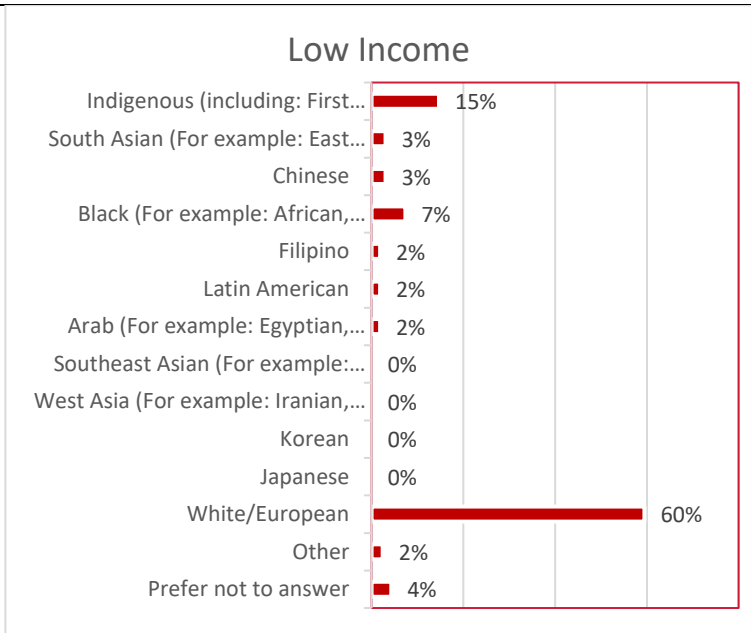


Figure 2- Population Group: Low Income

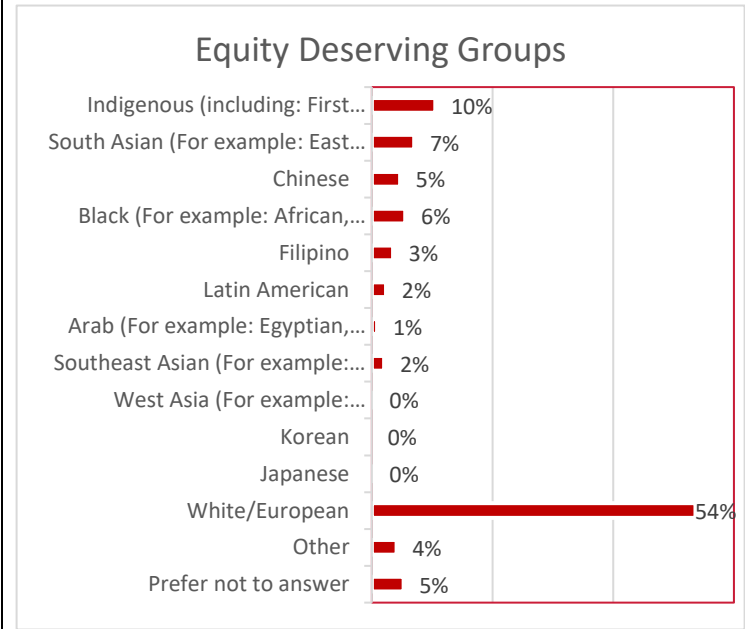


Figure 3- Population Group: Equity Deserving Groups

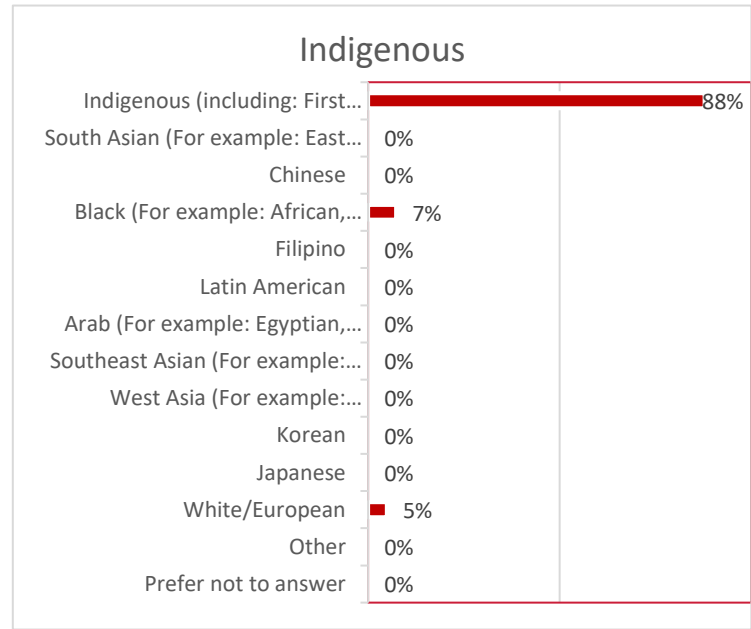


Figure 4- Population Group: Indigenous

Question: What is your age?

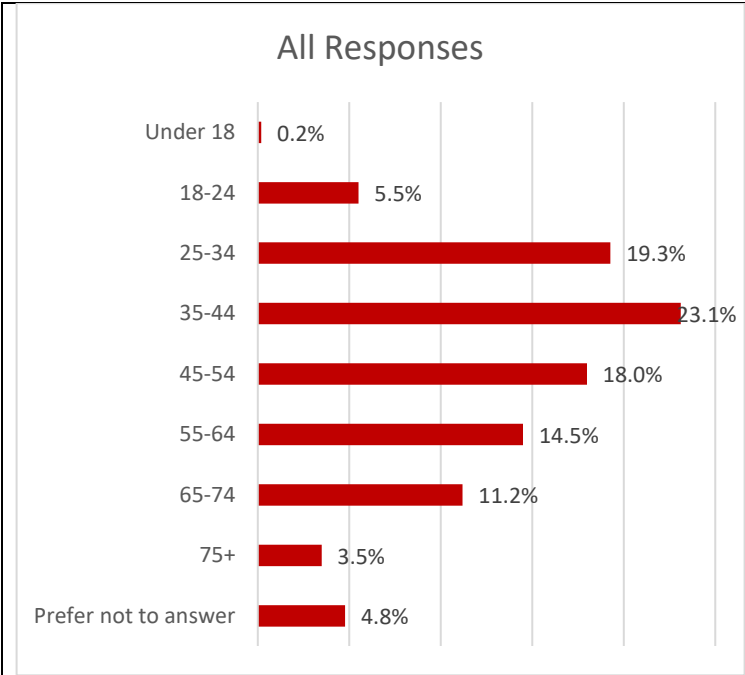


Figure 5- Age: All Responses

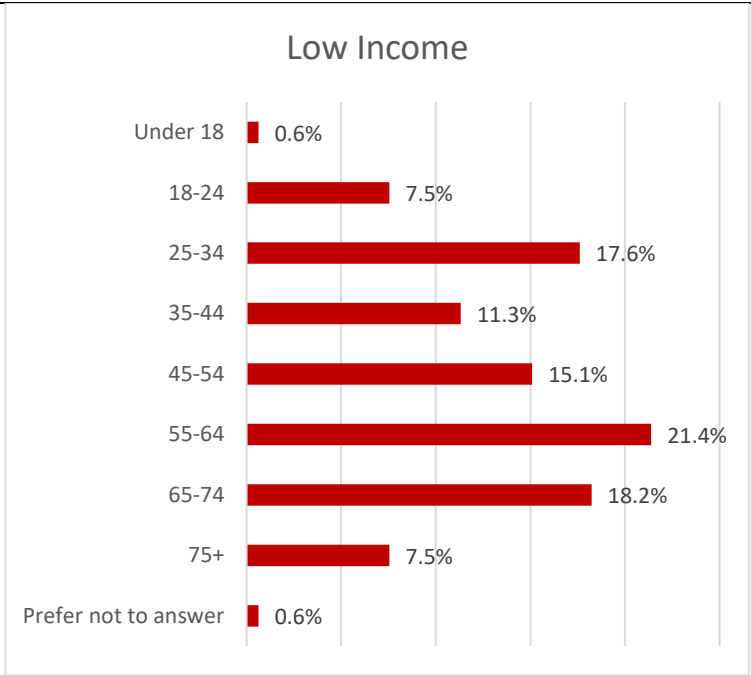


Figure 6- Age: Low Income

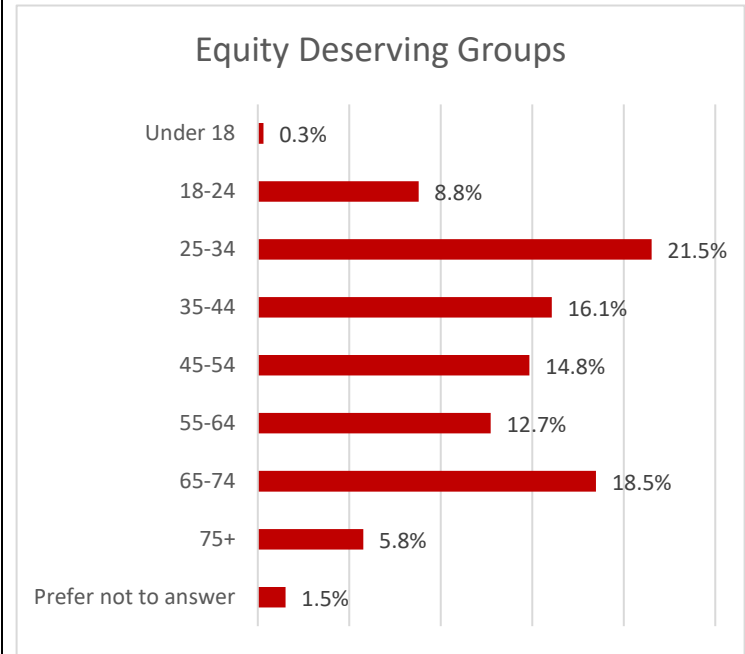


Figure 7- Age: Equity Deserving Groups

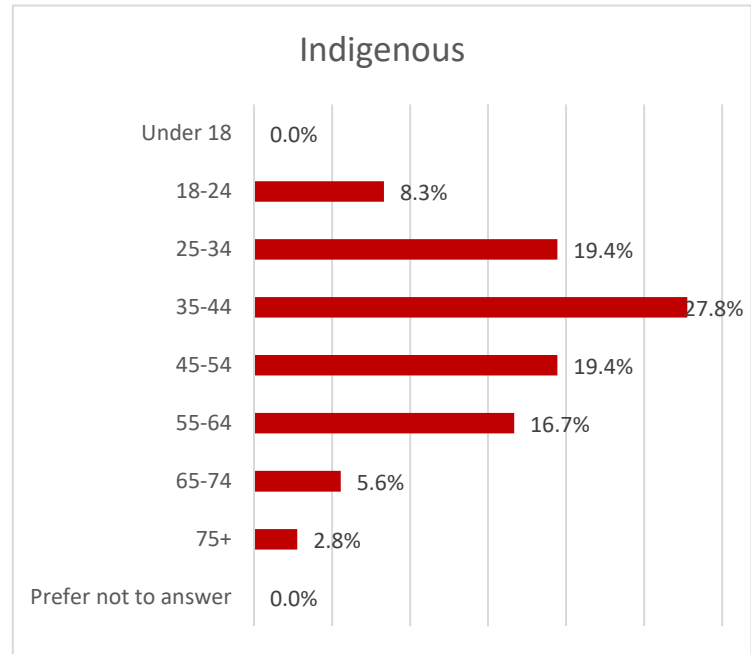


Figure 8- Age: Indigenous

Question: Your gender identity (check all that apply)?

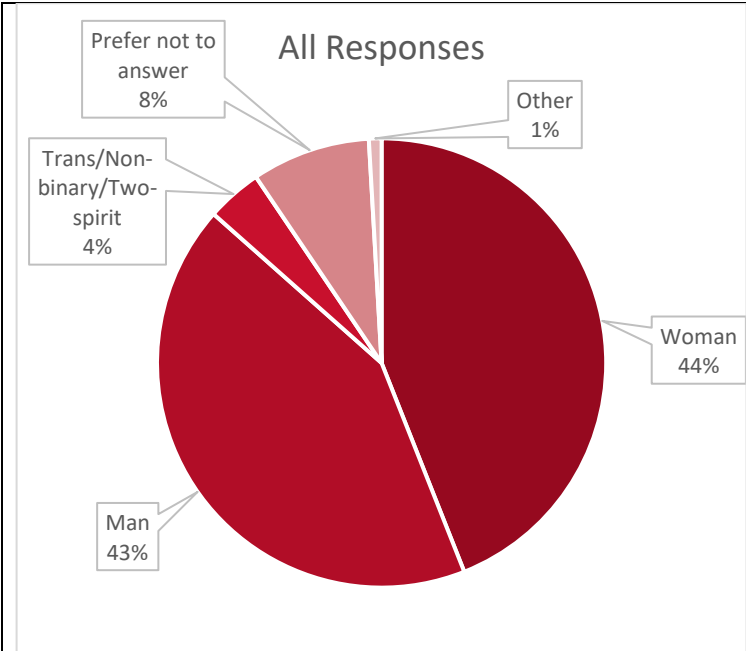


Figure 9- Gender Identity: All Responses

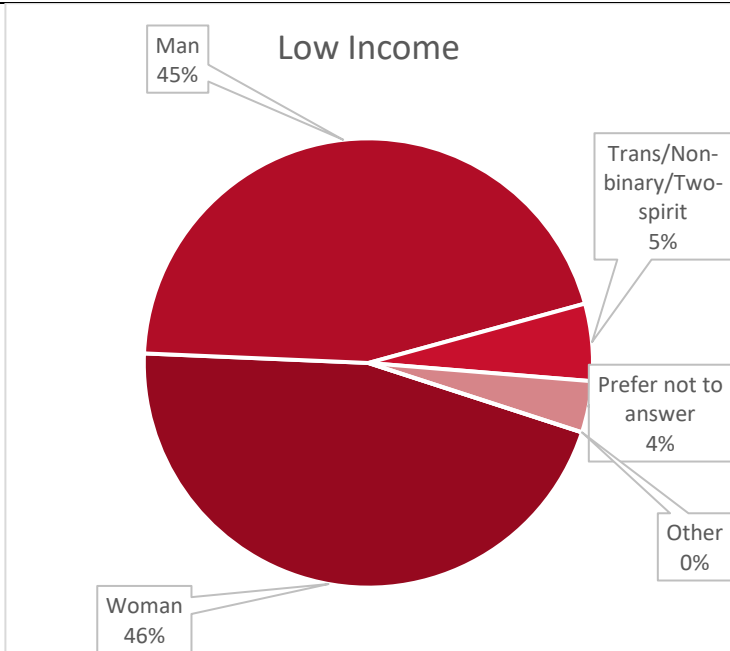


Figure 10- Gender Identity: Low Income

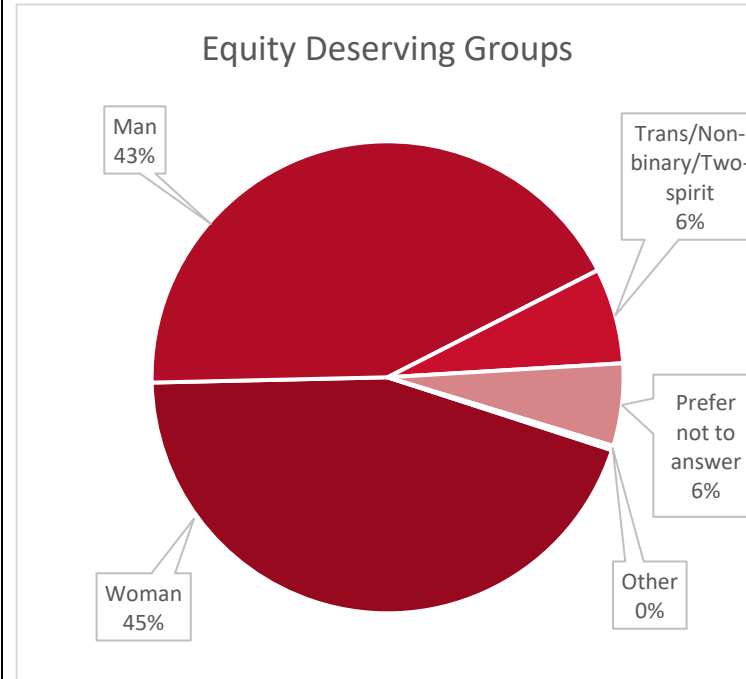


Figure 11- Gender Identity: Equity Deserving

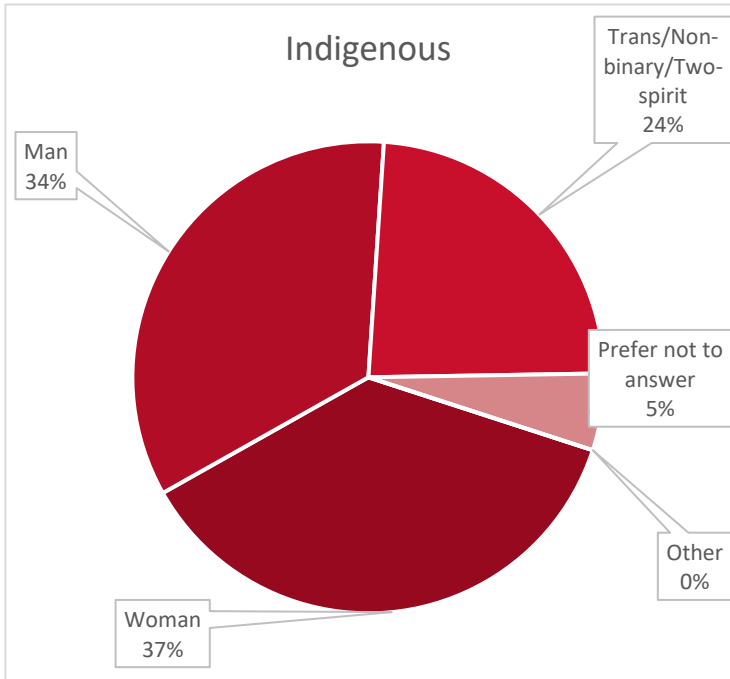


Figure 12- Gender Identity: Indigenous

Question: Do you identify as having a disability?

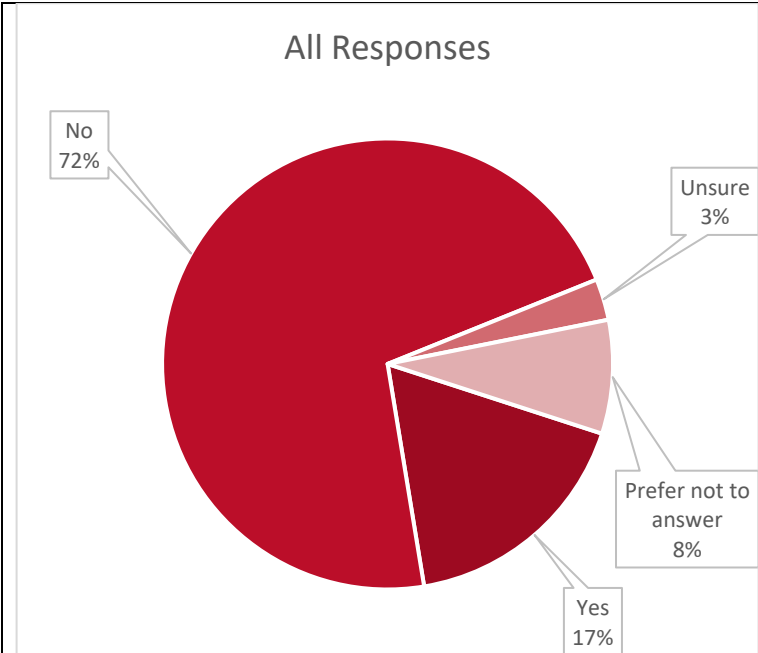


Figure 13- Disability: All Responses

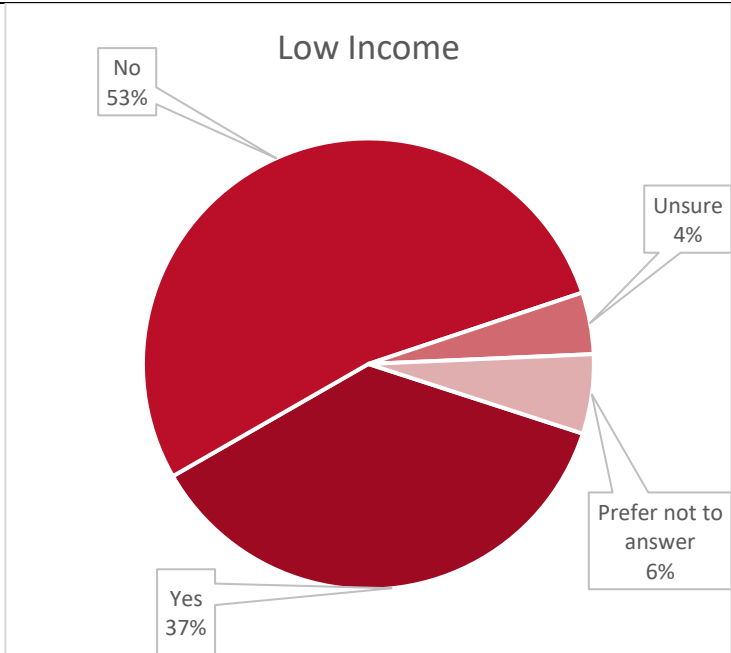


Figure 14- Disability: Low Income

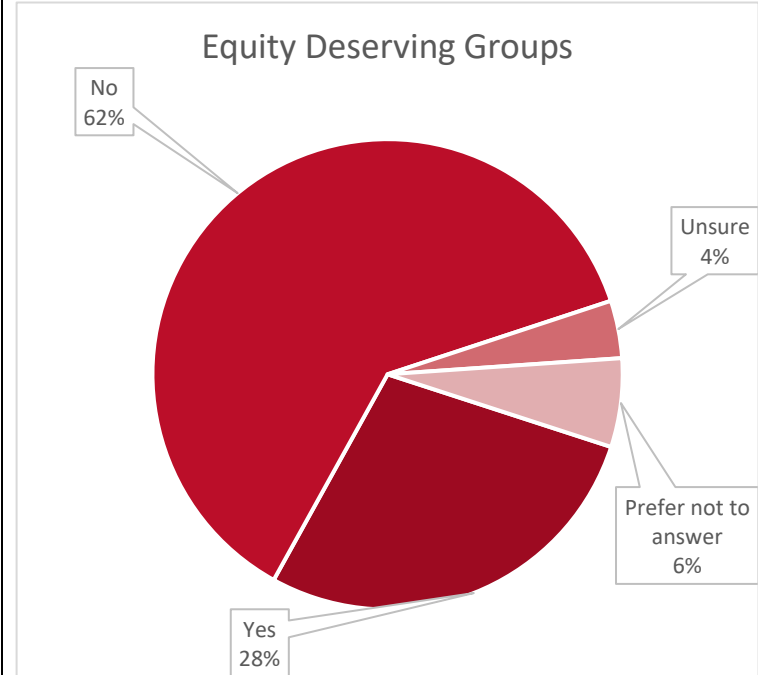


Figure 15- Disability: Equity Deserving Groups

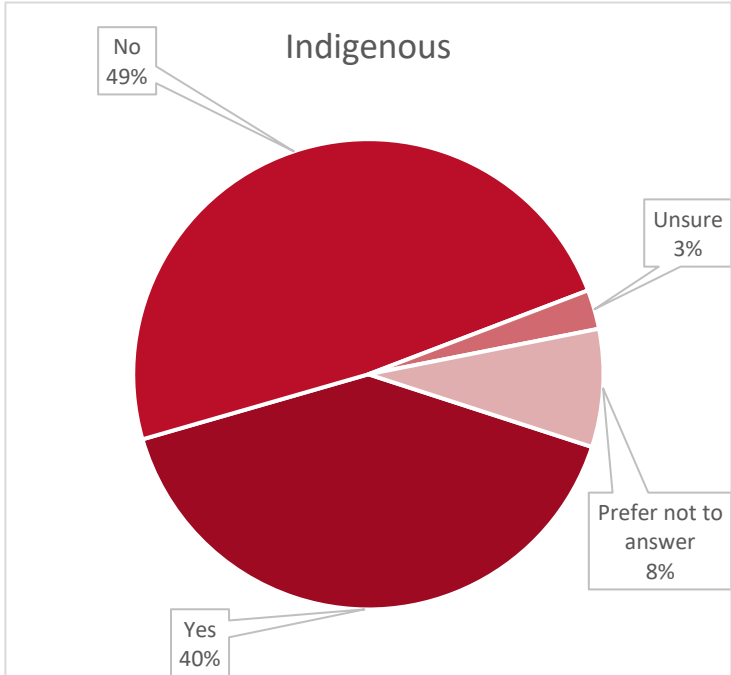


Figure 16- Disability: Indigenous

Question: Do you rent or own your home?

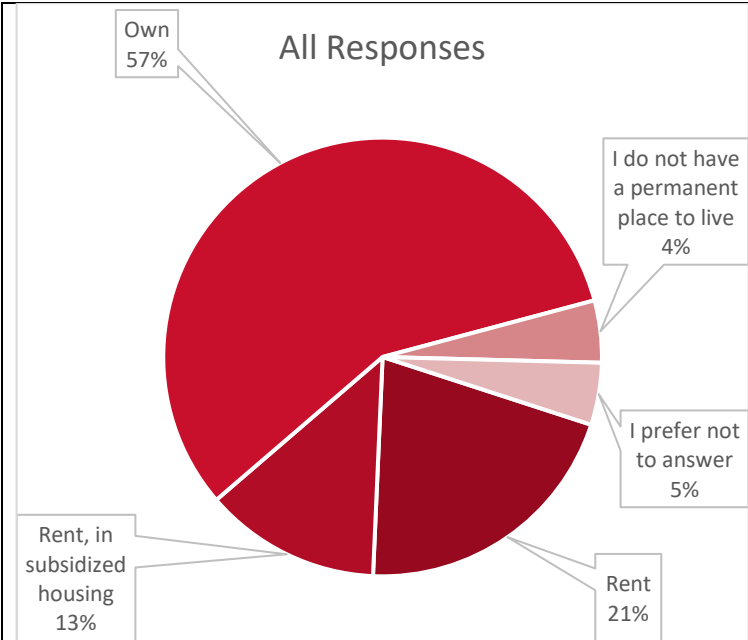


Figure 17- Living Accommodations: All Responses

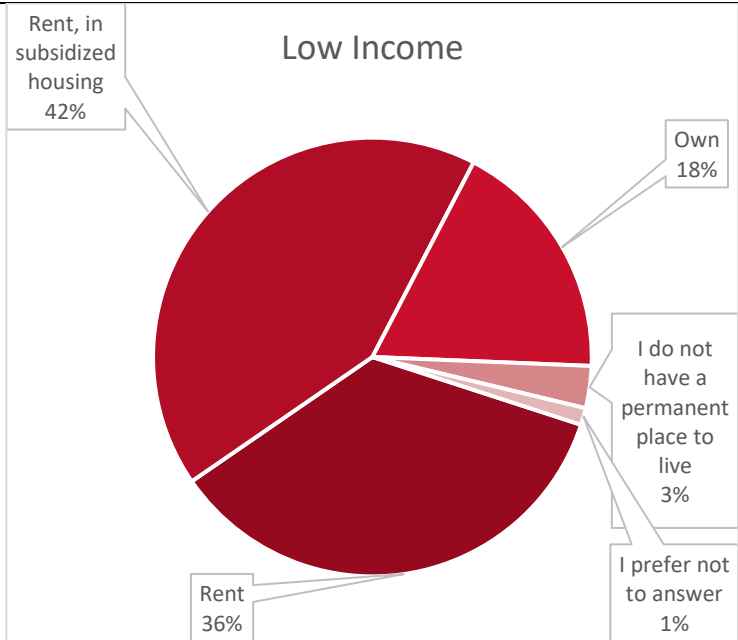


Figure 18- Living Accommodations: Low Income

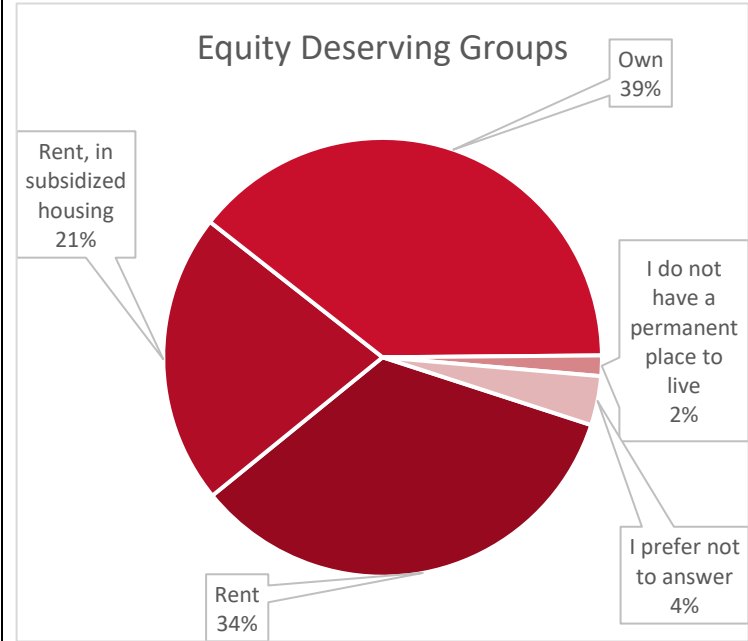


Figure 19- Living Accommodations: Equity Deserving

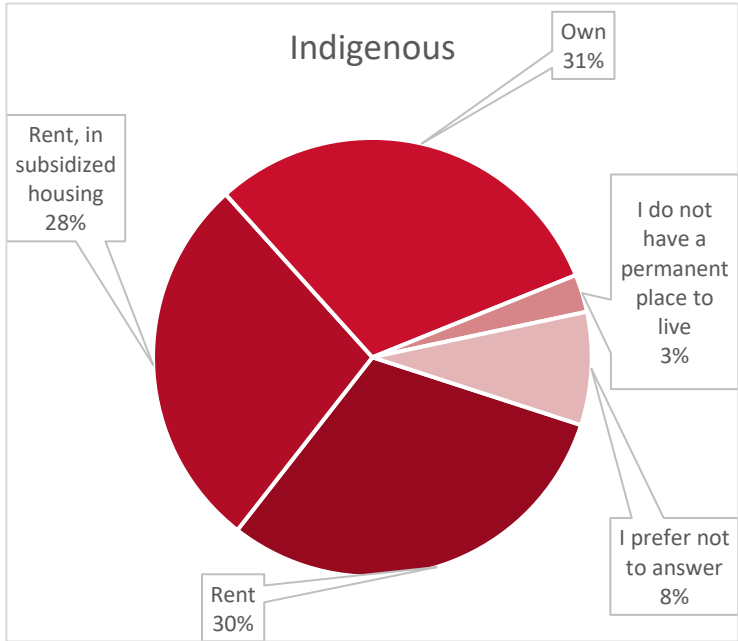


Figure 20- Living Accommodations: Indigenous

Question: What is your annual household income (before tax)?

All Responses

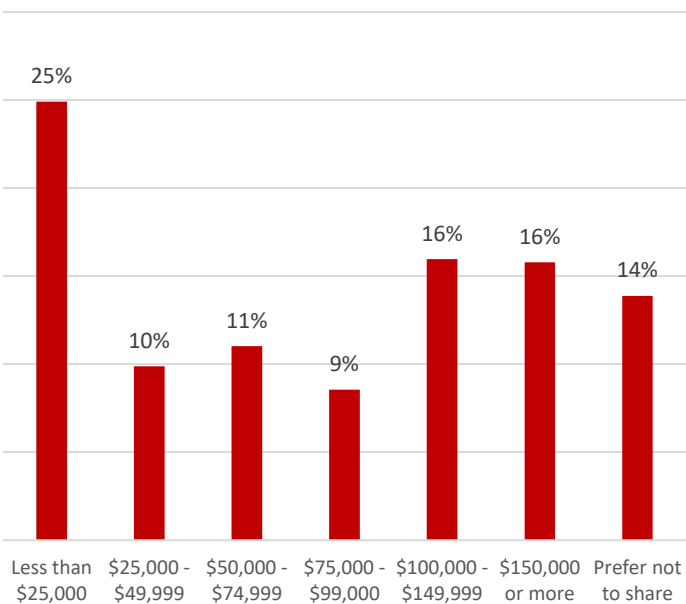


Figure 21- Income: All Responses

Low Income

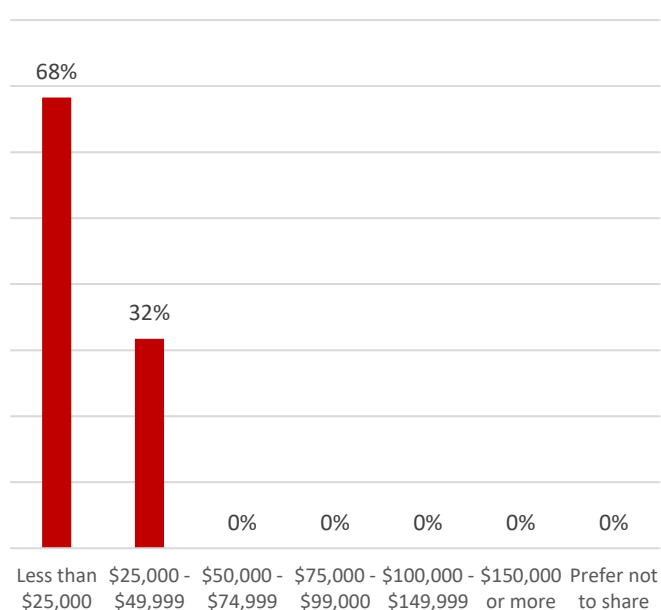


Figure 22- Income: Low Income

Equity Deserving Groups

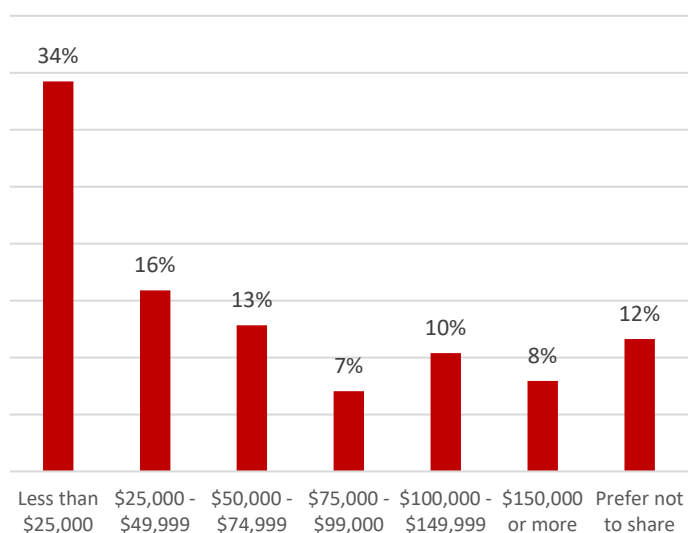


Figure 23- Income: Equity Deserving Groups

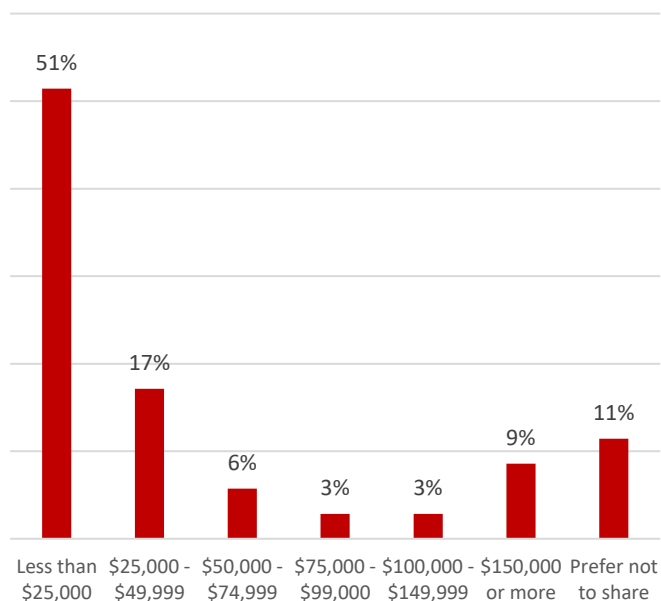


Figure 24- Income: Indigenous



Demographics Summary

Figures 1-24 outline the Demographics of the Calgarians that we heard from through the online engagement page, the paper copies of questionnaires, and interviews with rough sleepers.

These figures indicate that the engagement process was successful in connecting with equity deserving groups as defined in [Defining Equity Deserving](#) section and Calgarians that we don't typically hear from in City engagement projects.

Population Group

Figures 1-4 outline the population groups of respondents. The majority of respondents are White/ European (58 percent), with the next largest population groups in descending order being Indigenous (8 percent), South Asian (5 percent), Black (5 percent), Chinese and Filipino (3 percent), Latin America and Southeast Asian (2 percent), with all other groups reporting one percent each, and 9 percent preferring not to say.

Low-income respondents were again predominantly White/ European (60%), but a higher number of Indigenous individuals reported being low income (15%), followed by Black (7%), South Asian and Chinese (both 3%), and Filipino Latin American and Arab (both 2%).

Equity deserving groups figure shows the widest diversity of Calgarians with White/ European being the largest group (54%), followed by Indigenous 10%) South Asian (7%), Black, (6%), Chinese (5%), Filipino (3%), Latin American and Southeast Asian (2%) and finally, Arab (1%).

Indigenous respondents naturally identified as Indigenous (88%), followed by Black (7%) and White/ European (5%). Respondents could select all that applied in this question.

Age

Figures 5-8 outline age of respondents. The highest number of participants were 35-44 years (23.1%), followed by 25-35 (19.3%), 45-54 (18%), and 55-64 (14.5%). Youth (under 18 and 18-24) comprised of 5.7 percent of the responses, and senior's 14.7 percent of the total response.

Low-income respondents reported a different pattern of age breakdown. The largest number of low-income respondents were seniors (25.7% combined for 65-74 and 75+), followed by 55-64 years (21.4%), 25-34 (17.6%), 45-54 (15.1%), 35-44 (11.3%) and finally youth (8.1% combined for under 18 and 18-24).

Equity deserving groups reported the highest number of respondents as seniors (24.3% combined for 65-74 and 75+), followed by 25-34 (21%), 35-44 (16.1%), 45—54 (14.8%), 55-65 (12.7%) and finally youth (9.1% combined for under 18 and 18-24).

Most Indigenous individuals were 35-44 years old (27.8%), followed by 25-34 and 45-54 (both 19.4%), 55-64 (16.7%), seniors (8.4% combined for 65-74 and 75+) and finally youth (8.3% combined for under 18 and 18-24).



Gender Identity

Figures 9-12 show the breakdown of gender identity of respondents. The breakdown for gender identity from all respondents was women (44%), men (42.5%), trans/nonbinary/two spirit (4%), 0.9% stating other, and 8.5 percent preferring not to say.

Low-income participants show a slightly higher incident of trans/nonbinary/two spirit (5.6%), with men and women equally distributed (with 45.1% and 45.7% respectively) and 3 percent preferring not to say.

Equity deserving groups show an even higher incident of trans/nonbinary/two spirit (6.5%), women (44.6%), men (42.9%), 0.3 percent stating other, and 5.7 percent preferring not to say.

The highest occurrence of trans/nonbinary/two spirit occurs in Indigenous individuals (23.7%), women (36.8%), Men (34.2% and 5.3 percent preferring not to say.

The percentage of women is higher, compared to men, in low income, equity deserving, and Indigenous groups.

Disability

Figures 13-16 outline the incidence of respondents identifying as having a disability. Most respondents do not have a disability (71.5%), followed by 17.4%) who said they do have a disability, 3 percent who are unsure and 8.1 percent preferring not to say.

This number increases significantly in the low-income group, with 36.7% identifying as having a disability, 53.2% do not have a disability, 4.4% are unsure and 5.7 percent preferring not to say.

For equity deserving individuals, 28% identified as having a disability, 61.9% say they don't, 4% were unsure, and 6.1 preferring not to say.

The highest occurrence of individuals having a disability are from Indigenous individuals (40.5%), 48.6 percent not having a disability, 2.7% being unsure, and 8.1 percent preferring not to say.

Living Accommodations

Figures 17-20 outline the living accommodations of respondents. Of the total respondents, the highest number own their home (57.1%), 20.7% rent their home, 13% rent in subsidized housing, 4.6 % do not have a permanent place to live and 4.6 preferred not to say.

Unsurprisingly, the occurrence of renting is the highest in the low-income demographic, with a total of 77.6% (combined 35.4% renting and 42.2% renting in subsidized housing), 18 percent owning their home, the highest occurrence of not having a permanent place to live (3.1%), and 1.2 % preferring not to say.



Of the equity deserving individuals, 55.6% (combined 34.1% renting and 21.5% renting in subsidized housing), 39.3 percent own their home, 1.5 do not have a permanent place to live, and 3.6 preferring not to say.

For Indigenous individuals, 58.4 percent rent their home (combined 30.6% renting and 27.8% renting in subsidized housing), 30.6 percent own their home, 2.8 percent not having a permanent place to live, and 8.3 percent preferring not to say.

Income

Figures 20-24 outline the income distribution of respondents. The largest number of respondents (35%) in this engagement process reported being low income (combined 25% for \$25,000 or less and 10% for \$25,000-\$49,999). The next highest income brackets are \$100,000-\$149,999 and \$150,000+ (16% each), followed by 14% preferring not to say, 11 percent at \$50,000-\$74,999, 9 percent at \$75,000-\$99,999.

Low-income individuals shared a breakdown of income across the lowest two income brackets, with 68% reporting \$25,000 or less and 32% reporting \$25,000-\$49,999.

Equity deserving individuals show a wider distribution of income levels, with 50 % reporting low income (combined 34% with \$25,000 or less, and 16% reporting \$25,000-\$49,999), followed by 13 percent at \$50,000-\$74,999, 12 percent preferring not to say, 10 percent at \$100,000-\$149,999, 8 percent at \$150,000+, and finally, 7 percent at \$75,000-\$99,999.

Indigenous individuals reported a high occurrence of low income, with a total of 68% (combined 51% for \$25,000 or less and 17% for \$25,000-\$49,999). The next highest bracket was \$150,000+ (9%), followed by 6 percent at \$50,000-\$74,999, and 3 percent each for brackets \$100,000-\$149,999 and \$100,000-\$149,999. 11percent preferred not to say.

Intersectionality

The engagement process achieved a relatively high amount of intersectionality in the characteristics defined for equity deserving. 335 respondents (80.5 percent of the total) met one criteria, 58 people met two criteria, 22 people met 3 criteria, 7 people met 4 criteria and 1 person met 5 criteria.

Appendix B- What We Heard from Businesses

Prioritization of Adaptation Action Areas

Question: The following is a list of possible focus areas for climate action that help us to prepare for and reduce the impacts of climate change. When thinking about the needs of your business or industry, please rank these in order of which you believe the City of Calgary should place priority. (Q2)

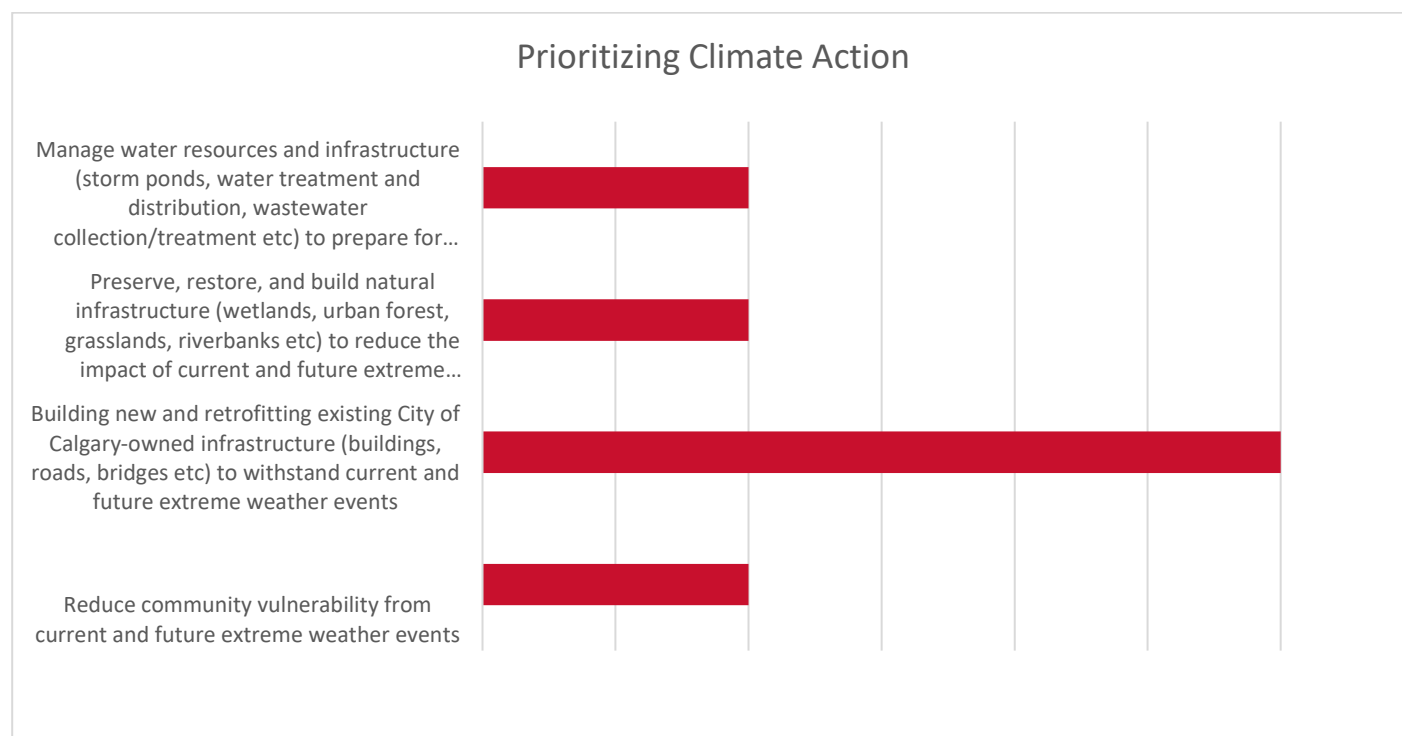


Figure 23- Business Prioritization of Adaptation Action

Businesses ranked Building and retrofitting City Owned Infrastructure as the action area that would most benefit their interests (Figure 23). When given the opportunity to explain why they prioritized the focus areas the way they did, business respondent shared:

- Deployment of microgrids based on renewable energy resources are the global trend. **Calgary should implement the microgrids in buildings, communities, factories, flood prevention projects, electrical vehicle charging stations, wastewater treatment plants, indoor gardening...**
- This is lunacy. **Whatever virtual signalling efforts are made by the Calgary government will have no impact on the environment.**
- I am less interested in the effects of climate extremes than I am in ameliorating what we are doing to the earth: **the order I chose seemed the most likely to mitigate our affects on the planet while also achieving the goals you describe**

- We need to first protect the people. All are important; however, **investing in a grassland while not investing in engineered flood defences is not maximizing effectiveness of the limited tax spend.**
- 1st choice has a **direct impact on citizens** and a **program directed at upgrading homes would be beneficial.** 2nd and 3rd choice are important but the hardest and focus on these before the easier #4.
- **Spend less** please
- I believe **the natural environment has its own way of protecting itself.** Restoring it to as close to its natural state would be a win-win.

Prioritization of Mitigation Action Areas

Question: The following is a list of possible focus areas for climate action that will help us reduce greenhouse gas emissions in the community. When thinking about the needs of your business or industry, please rank these in order of which you believe the City of Calgary should place priority. (Q3)

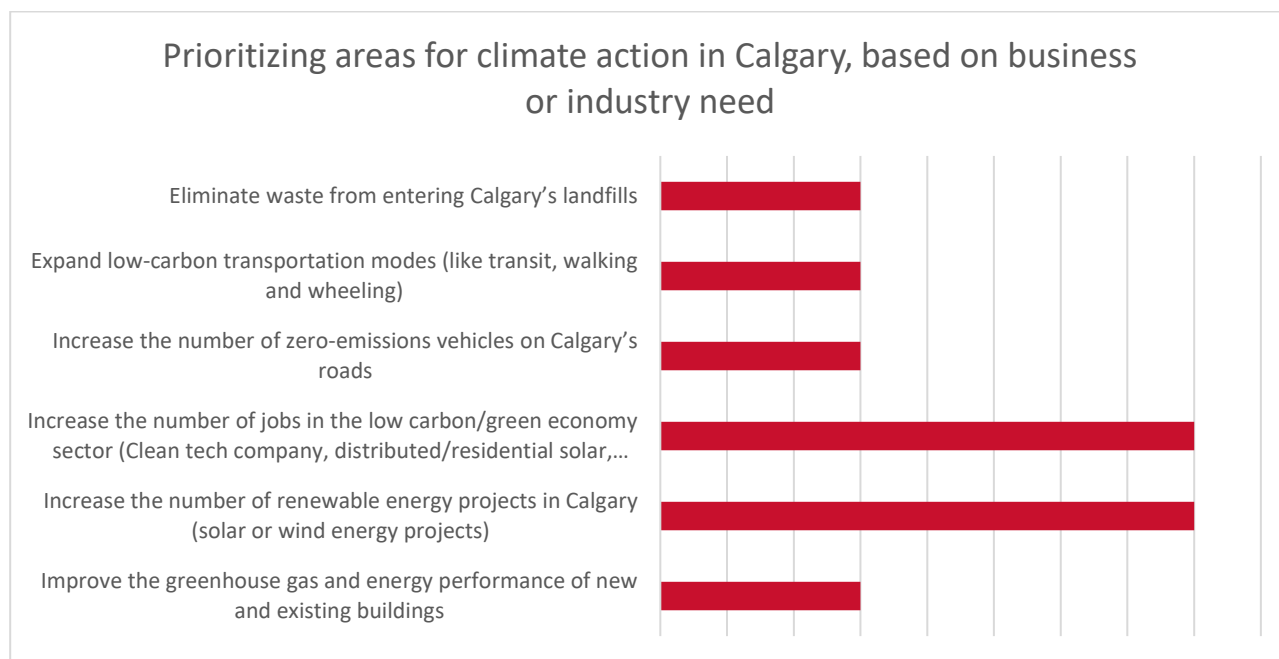


Figure 24- Business Prioritization of Mitigation Action

Figure 24 outlines how businesses prioritized action. The two that ranked the highest were:

1. Increase the number of jobs in the low carbon/green economy sector (Clean tech company, distributed/residential solar, battery manufacturing)
2. Increase the number of renewable energy projects in Calgary (solar or wind energy projects)

The following items were ranked equally:

3. Improve the greenhouse gas and energy performance of new and existing buildings
4. Increase the number of zero-emissions vehicles on Calgary's roads
5. Expand low-carbon transportation modes (like transit, walking and wheeling)
6. Eliminate waste from entering Calgary's landfills.

When given the opportunity to share why they prioritized the focus areas the way they did, business respondents said:

- **Centralized solar and winds generation solutions are not very efficient** because they require investment in expensive transmission lines. In addition, **energy storage are needed**: batteries are well known solution, but much better energy storage development will come from **Green Hydrogen!!!** (Blue Hydrogen is waste of time and tax-payers' money). The **world-leaders are claiming that Green H2 will be cheaper than Blue H2 by 2023**.
- How about **ban all trade with China and India**, the largest carbon emitters?
- I am aware that Calgary's largest carbon footprint comes from its **buildings and infrastructure**, and the need to move from making those physical changes around the city to **engage in Calgarian's by employing them in this procedure** seems the most productive way to achieve the final projects successfully
- **Without infrastructure**, for example charging stations and hydrogen refuelling stations, the **transition is impossible**. It is **not possible for businesses to make the switch en mass without subsidies** and sponsored infrastructure. Green jobs will then follow. The **other way round is not sustainable**. It is 'green washing'.
- **Space heating and water heating are some of the largest contributors** of energy use and thus greenhouse gas emissions
- **Increasing costs and tightening codes isn't going to help**. However **making green energy or solar and cogen easy and inexpensive** will make a much larger difference in the cost of living and co2 output of the average calgarian.
- I think **lowering emissions is the lowest hanging fruit**. Simply put it is quite easy to do, and **will generate lots of jobs**. We have the space and infrastructure to do it. Seems like a **no-brainer**.

Concern about Climate Actions

Do you have any significant concerns about any of these focus areas (in question #2 and 3)? Please explain.

- Yes, **Air pollution in Calgary during summers due wild fires/ heat-waves are terrifying**. Although, this is mostly federal jurisdiction, Calgary **should also invest in development of air pollution remediation** beyond air pollution monitoring. This **should be our FIRST priority**, because of our kids need clean air every second in their lives!!!! **Second priority is Silver Spring reservoir**. This project **should be combined with renewable microgrids for indoor fresh plants vertical production!!!**

- Yes, I do. This once-in-century energy transition will happen. However, **it needs to be done responsibly and to a plan that is sustainable to all the elements of sustainability (social, environmental, economic)**. It must also be done **in concert with all levels of the government**. It must not leave the disenfranchised behind. Calgary has a **significant homeless problem, and Calgary must address that first (social)**.
- Yes - we **must not get caught up in the "electrification" of the nation** - there are **other complimentary technologies that are within reach of the average citizen**.
- I'm **not interested in paying higher taxes for your virtue signalling** initiatives
- I do get **concerned about expanding low carbon transit modes**....simply Calgary is so spread out. The reality is, most of Calgarians choose to drive over taking public transit. I think **this money would be better invested elsewhere**. Not that I don't like the idea....**it's just not efficient IMO**.
- My greatest **concern is actually about public engagement**, as **any of these actions will be driven forward by what Calgarians see as necessary**. The city must lead, but the **citizenry must understand!**
- We **need to stop spending the way we used to and catch up to the technology we have available**. The **east village energy Center** for example is an absolute joke. I can't even express the letdown I felt when I found out it was **just a central boiler and not a co or trigen facility**. **We waste soo much energy** doing nothing **then express an emergency when we don't touch the low hanging fruit**.

Business Alignment

Are there any focus areas that align directly with your business? Which ones? (Q5)

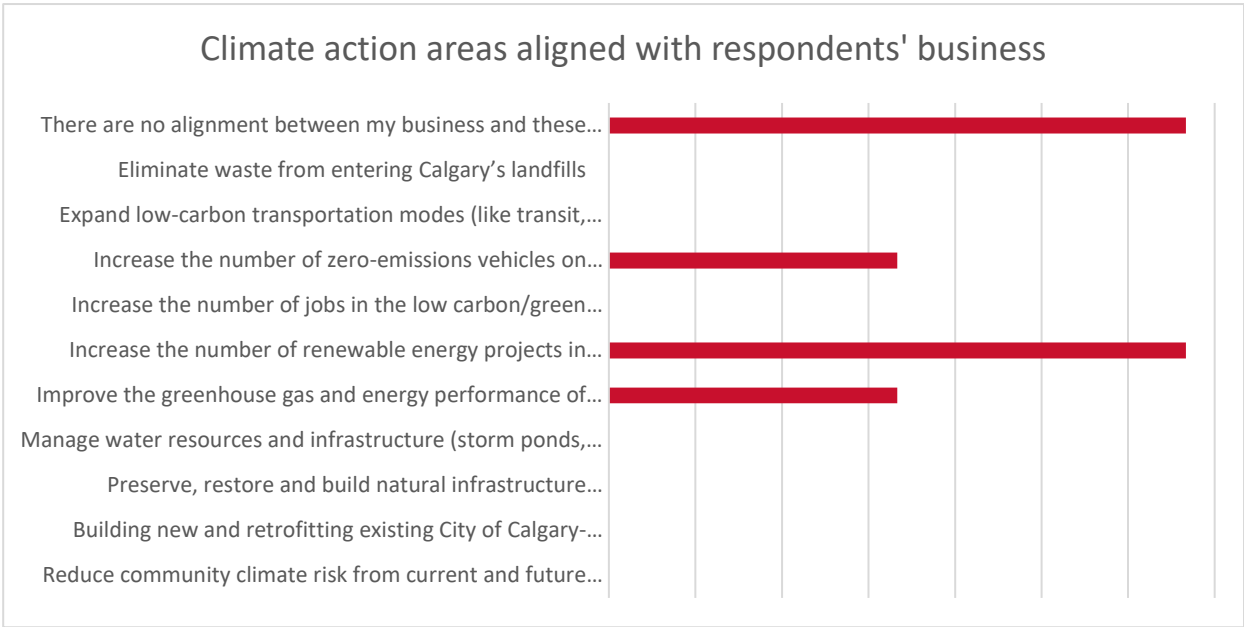


Figure 25- Business Alignment to Climate Action Areas



Respondents identified a few options that aligned with their business. These included:

- Increase the number of renewable energy projects in Calgary (solar or wind energy projects)
- Improve the greenhouse gas and energy performance of new and existing buildings
- Increase the number of zero-emissions vehicles on Calgary's roads

Just over 30 percent of respondents did not report any direct alignment between their business and the proposed climate actions in the question. Respondents said these options did not align with their business:

- Reduce community climate risk from current and future extreme weather events.
- Building new and retrofitting existing City of Calgary-owned infrastructure (buildings, roads, bridges etc) to withstand current and future extreme weather events.
- Preserve, restore and build natural infrastructure (wetlands, urban forest, grasslands, riverbanks etc) to reduce the impact of current and future extreme weather events
- Manage water resources and infrastructure (storm ponds, water treatment and distribution, wastewater collection/treatment etc) to prepare for extreme weather events such as floods, storms and long-term impacts
- Increase the number of jobs in the low carbon/green economy sector (Clean tech company, distributed/residential solar, battery manufacturing) in Calgary
- Expand low-carbon transportation modes (like transit, walking and wheeling)
- Eliminate waste from entering Calgary's landfills
- There is no alignment between my business and these focus areas

For those who did see an alignment, respondents shared some further comments:

- Our team of **international experts in Calgary has over 300 projects world-wide implementing advanced power system solutions**. Also, my partners are Calgary's investors interested in renewables.
- My business began as a **diversity and inclusion company**, but its focus is moving to Civic assembly
- **Expanding and adopting and eliminating roadblocks to green tech** will provide new business and provide an avenue for calgarians to reduce their impact and increase the economic benefits. Jobs etc
- **We are a solar design and construction company**.

Resources and Support

Question: What resources or support would you like to see that would assist your business/industry to reduce your greenhouse gas emissions?

Respondents said:

- **Standardized approach to microgrid project implementation** would reduce "soft cost" in renewable energy projects and **would help to reach companies', communities', industries' objectives**. There are many initiatives in US, EU and globally, that are aiming in that direction. Canada should join.
- **Tax rebates to dispose of diesel motorcoaches** and **funding** to purchase electric motorcoaches and charging stations.
- **Financial**
- Adapt a special **program that allows for new ideas** and **relaxations of certain rules that stand in the way of progress**. Allow for "research" exemptions to building codes and **remove anything and everything standing in the way of building and developing green tech**. If we want every house to have solar then **grant every house a permit to install solar**. There **shouldn't be a meter in the city that doesn't support back feeding**. Solar is as simple as plugging in an appliance. Why make it more complicated?
- **CEIP program** would be fantastic for both residential and commercial customers. It is a win-win-win.

Economy and Energy Transition

Question: The City is considering establishing a target for supporting a low carbon economy similar to that of other cities like Vancouver (such as doubling the number of new green jobs by 2020, over 2010 levels). To what extent do you agree this would help accelerate Calgary transition towards a low carbon/green economy? Select one. (Q6)

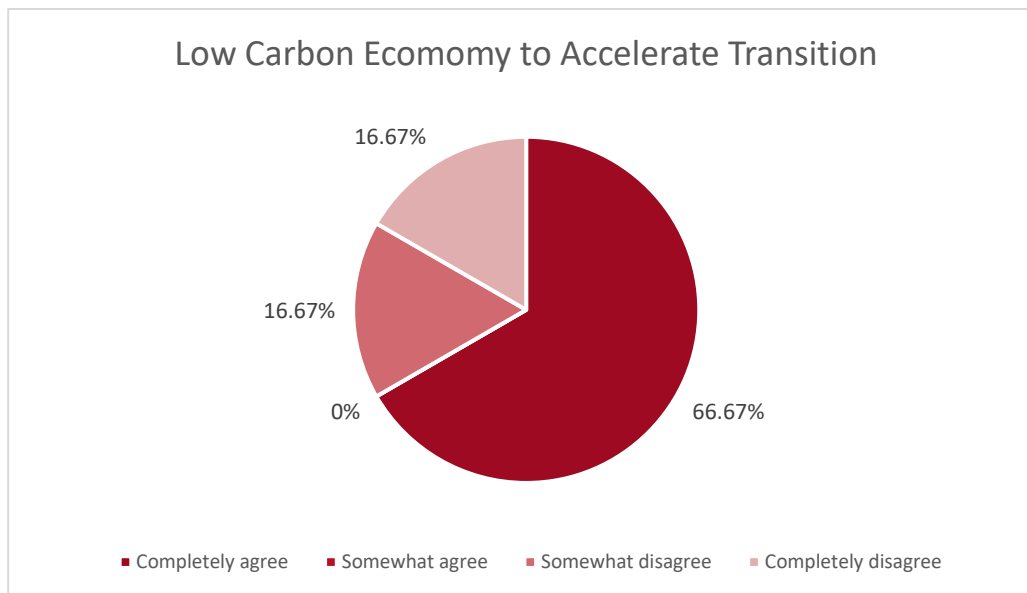


Figure 26- Low Carbon Economy to Accelerate Transition



Figure 26 shows that 66.67% of respondents completely agreed, 16.67% somewhat agreed and completely disagreed. No respondent somewhat agreed.

When asked to explain further, business respondents said:

- Much of the resistance to climate mitigation is based on day-to-day realities of economic or practical obstacles. **Employing people in this transition** will both educate them and their neighbors in this adaptation and improve our awareness of other factors in our day-to-day life that can help this project.
- This is achievable and supports the development of the technical and trade workforce which is drastically in need of reinforcing
- The **tech is here**, the **products are here** and **people want it**. Once the city gets out of the way it will grow new jobs on its own.
- I think that Calgary, and Alberta in general, is **blessed with tremendous natural resources in terms of renewable energy** (wind, solar, etc.) We have **a lot of talented people here**, and the resources to make things happen. A natural fit that I support very much.
- The **leading economies in the world are much further ahead** of us. Future energy system should be **combination of existing centralized assets** (we can not retire them too quickly), **with nested (decentralized) microgrid assets (mostly renewable)**. For thousands of such devices to work together they need to be interoperable; to operate efficiently, they need to talk to each other. **I'm working on Canadian Council for Standards initiative to streamline those standards for energy system improvement.**
- **Such a target is just making this the responsibly of the business.** Set targets that enable business to make the transition to green, then they can afford to hire people verses go out of business.

Partnering with The City to Support Climate Action

Question: In what ways do you see your business/ industry partnering with The City to support climate action? (Q7)

- Transition from **centralized into decentralized** concept.
- **Civic assemblies have the two prong advantage of both introducing constructive ideas**, if they are constructive, and **then listening to the ramifications of these ideas on a populace**. Then the populace, with its multiplicity of ideas and experience, gets to provide feedback to improve the possible output. Finally, the **credibility of the output is enhanced by the participation of one's neighbors** in its results! An excellent way to integrate change: **climate assemblies are the future in democracy!**
- We will **transition our fleet to zero-emission**, provided that the federal, provincial, and **municipal assist**. The **economics do not currently work to make the switch**. For example, a diesel

motorcoach costs \$670,000 and no infrastructure change cost. An electric motorcoach costs \$1.4M and \$200,000 per motorcoach in infrastructure change. **The savings between fuel and electric cost does not produce a ROI that is sellable.** No customer will charter a motorcoach at a rate that makes this functional.

- **Grants and rebates for equipment upgrades**, responsibly developed for the highest efficiency options and technology
- **educating the community** about the positive effects
- **Manufacturing and supplying products.** Supplies and services to enable the transition to new emerging green technology
- Unsure of at this time. But we would **love to see the CEIP program here in Calgary.**

Economic Diversification

Question: To what extent do you agree that there is an opportunity to diversify the economy through climate action? Select one. (Q8)

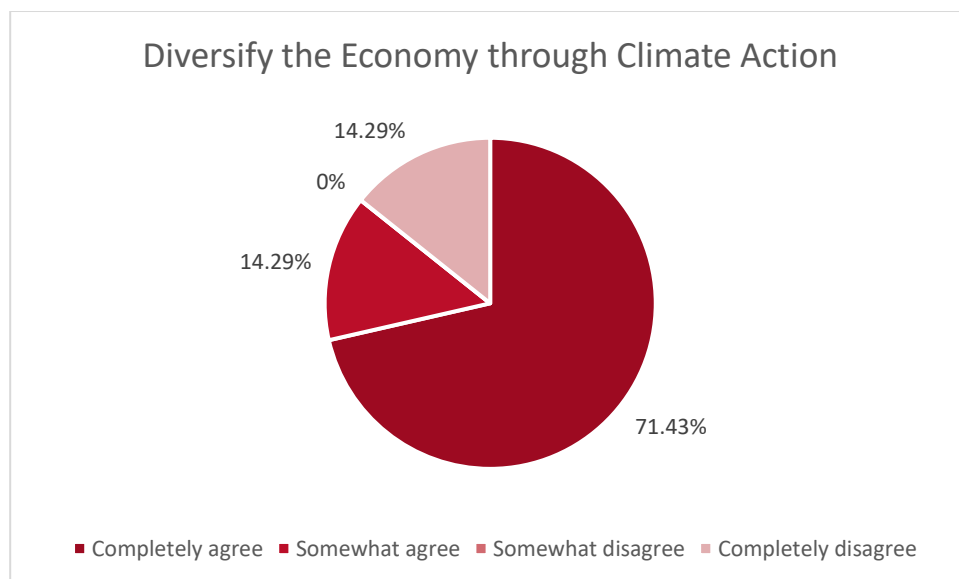


Figure 27- Diversifying the Economy through Climate Action

When businesses were asked to explain further, they shared:

- We have to **transition from ONLY O&G industry into more advanced climate-friendly industry.**
- Can you actually **show me what your initiatives will do** to lower climate temp?
- Our economy, particularly in Alberta, has been focused in One Direction, and to change its direction with a constructive goal in mind seems **apt to create a large quantity of new development while still moving us in a direction that is sustainable.**

- **Calgary has all the requirements** for alternative energy
- There's a **win win between climate and economy** when it's **economically viable** to develop green technology. But while **regulations continue to be the largest roadblock** the gains will continue to be limited.
- It must be done with a **clear plan that is aligned at all levels of the government**. It **cannot be 'green at all costs'**. It must be sustainable.
- I just think it is a very logical path. As stated before **we have the resources, and we have the workforce**. It would be crazy not to take advantage of this.

Climate Action and Calgary's Prosperity

Question: To what extent do you agree that investing in climate action is investing in Calgary's prosperity?
Select one. (Q9)

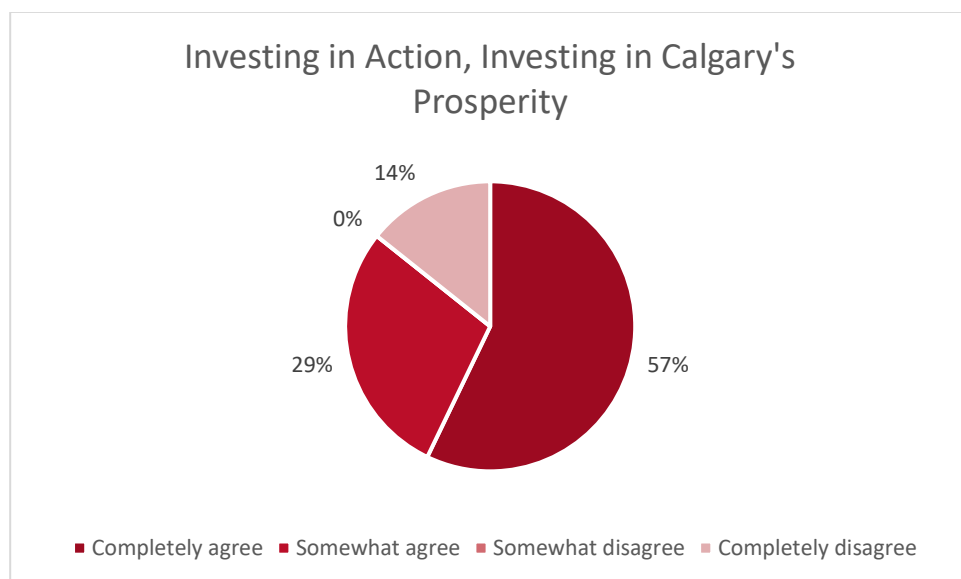


Figure 28- Investing in Action and Prosperity

When asked to explain further, business respondents said:

- This is world-wide trend. **Calgary has to be part of that trend to survive.**
- **Petroleum is fortunately not the only resource** that Alberta is blessed with.
- We all know the transition will happen. **Resisting this will actually put us at a disadvantage.** However, it must be done smartly without grand standing and with a proper plan. **Just setting targets does nothing.**
- there will be **no calgary with no climate action**



- Calgary should be **upgrading its infrastructure to better standards using new tech**. But **[The City] also just needs to step out of the way** to encourage growth in the sector.
- From an economic standpoint it is extremely attractive. I also think **we can be a leader in the world's energy transition**.

Barriers to Climate Action in Business

Question: Have you experienced barriers to developing a green/low carbon business or technology? If yes, what are those barriers? (Q10)

- **Natural monopoly of energy industry is main barrier**. This industry sucks all "oxygen" in the **economic space** to discussion about diversification. O&G industry is foreign capital owned, that has main objective to make profit. We need foreign capital, but that **capital is moving away from fossil fuel based industry** in long ran. **All short-term investment is not good for Calgary**.
- The only possible barrier like this I have heard of specific to assemblies is the **resistance of elected officials to engaging with the results of the assemblies**
- Yes, the **Federal government provides no subsidies to make the transitions**. Funding that has become available has **so many conditions that not many qualify**, especially in transportation.
- The current **federal programs are riddled with errors and inconsistencies**.
- Absolutely. Ron even the most proven of **technologies (solar) is an absolute pain to get through regulatory** even for the smallest systems. There **should be templates available to install to with a simple no cost platfrom to coordinate**. Then for new or less common tech like turbine cogeneration the relations need to be upgraded to allow it. Right now **it's very near impossible to adapt new technology as the code system is designed to only accept old well know equipment**. For example city bylaws rest
- Yes, **mostly from the oil & gas workers**. I feel like there is a **huge education component** that the majority of the public is not aware of when it comes to renewables. They just don't know how it truly works.
- **financial**

Energy Costs

Question: Has your business experienced a significant increase in energy costs in recent years? If yes, how has this impacted the way you run your business? (Q11)

- We are not energy intensive business. We are service oriented company on global market.
- No
- Yes, **fuel costs, labour costs, pandemic costs, and now unsustainable inflation. We have lost millions** and millions during the pandemic, and these factors are making long-term survival a challenge.

- We have had to **reduce our community outreach and charity programs to deal with higher fuel and energy costs.**
- Yes. The **increase has been detrimental.** In response **we have adopted solar and cogeneration.** This has been met with **intense pushback from inspectors and utility companies.** **You have to either be for the environment or against you can't have both.** Make it easy to go green or announce that you don't care and that everyone should burn whatever they can find.
- No.

Emissions Reporting

Question: Have you experienced investors in your business requiring that you disclose your businesses greenhouse gas emissions as a condition of investment? Select one. (Q12)

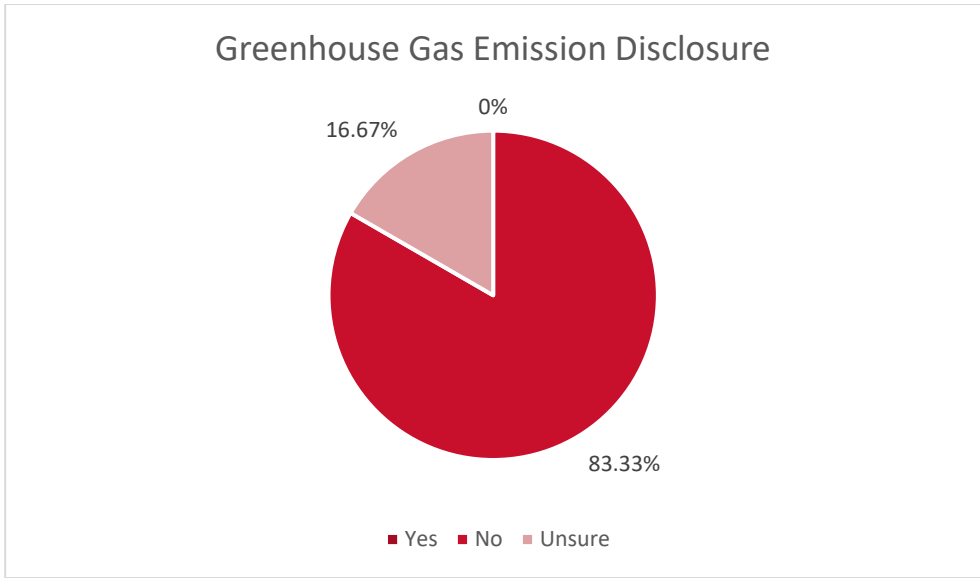


Figure 29- Greenhouse Gas Emission Disclosure

Question: Have you ever lost investments in your business because of not reporting on greenhouse gas emissions? Select one (Q13)

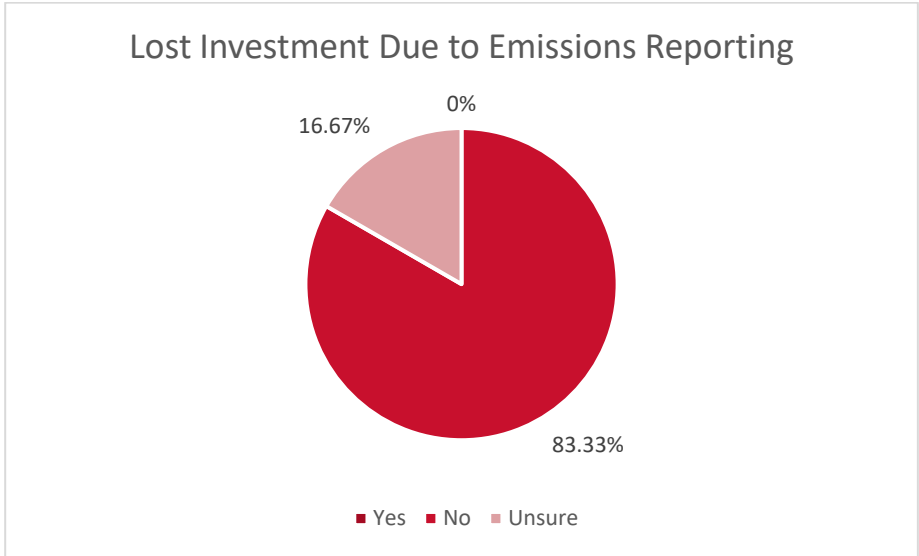


Figure 30- Investment and Greenhouse Gas Disclosure

Question: Is your business insurance impacted by the amount of greenhouse gas emissions your business contributes? Select one. (Q14)

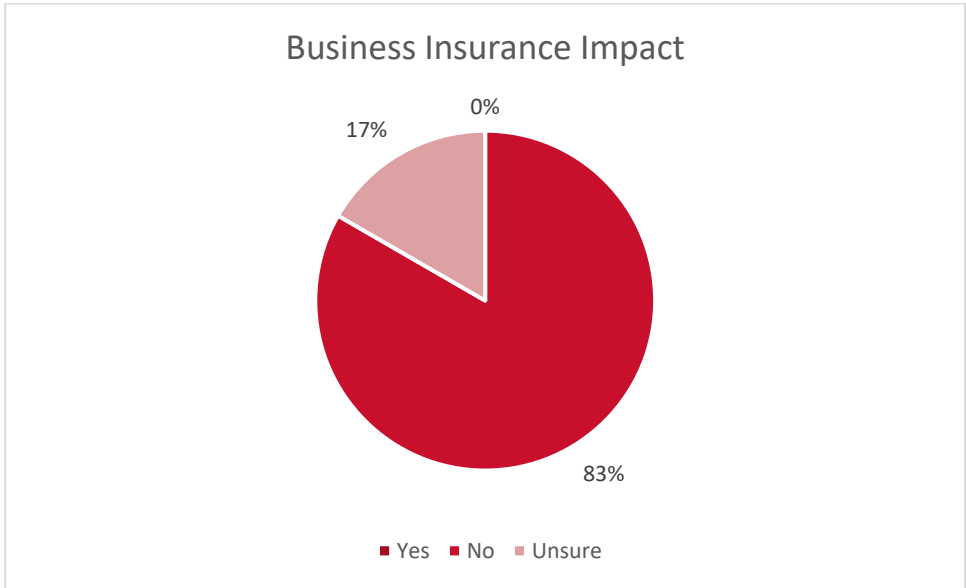


Figure 31- Impact to Business Insurance

Emission Targets

Question: To what extent do you agree with the following statement? “Setting ambitious, science-based targets to cut emissions will kickstart positive reactions throughout businesses and their value chains by: increasing innovation, reducing waste and unlocking efficiencies, strengthening investor confidence, reducing regulatory risk and uncertainty and reducing exposure to fluctuating uncertain energy costs”. Select one. (Q15)

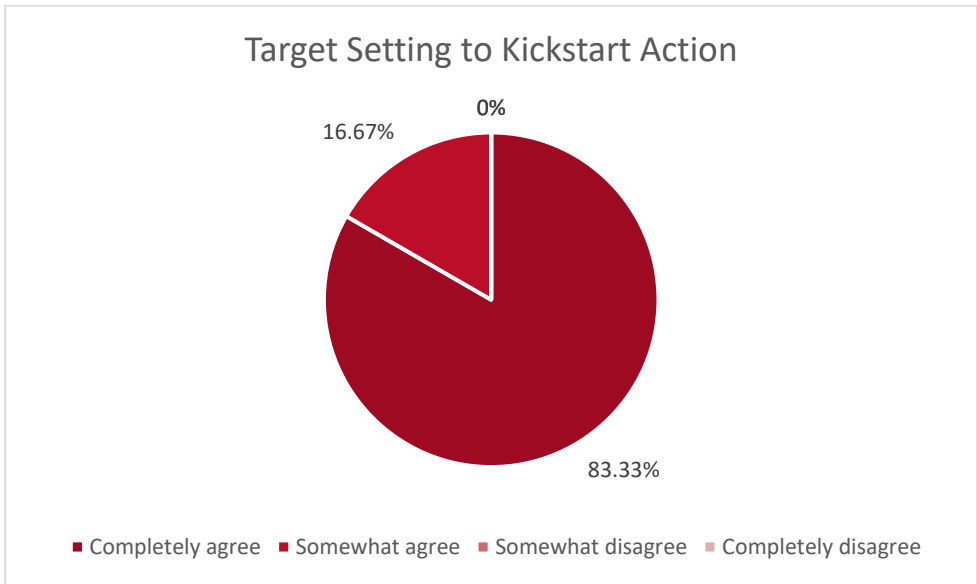


Figure 32- Target Setting

When asked to comment further, business respondents said:

- **Government regulations are main road block** for new energy system development. For example, Green Hydrogen regulations don't exist in Canada. Also, **introducing microgrid solutions into residential, commercial and industrial** facility will **reduce exposure to fluctuating uncertain energy costs**, because it is locally managed. Sun and wind are predictable on annual level (number of sunny/windy hours in a year are predictable), while energy storage reduces hourly, daily, weekly fluctuation...
- Whether we have been grinding up parts of grasses to become a bread basket for the world, or pumping decayed vegetation out of the ground to fuel internal combustion engines, **we tend to be successful in finding ways to fit into new niches**. “**Science based targets**” is simply a new market to exploit for industry.
- It **has to be economical possible**. For example, everyone talks about being green, but no one wants to pay for it. For example, a diesel motorcoach costs \$670,000 and no infrastructure change cost. An electric motorcoach costs \$1.4M and \$200,000 per motorcoach in infrastructure change. The savings



between fuel and electric cost does not produce a ROI that is sellable. No customer is willing to charter a motorcoach at the cost that makes this functional.

- **People will adapt and innovate** to survive and to thrive.
- **Couldn't have said it better myself.**

Considerations for the Climate Strategy and Action Plan Update

Based on what we heard, most business respondents are supportive of this energy transition and setting targets and believe Calgary and our workforce are well positioned to make it happen. Most think that we have what we need- people, technology, and the resources to make the transition (renewables). Respondents believe Calgarians are innovative and adaptable. Calgary is positioned to be a leader in the energy transition and could be at risk of getting left behind if we do not accelerate action now.

According to these respondents, what is missing is regulation that supports action, rather than hinders it, and makes it easy for businesses and regular Calgarians to participate. In addition, the return on investment needs to be there and acting needs to be financially sustainable.

Updates to the climate plan should consider regulatory updates that support action for everyone, methods and incentives to make action affordable, education and support to make the action easy, both for business and for regular Calgarians.