

Calgary



Advancing energy equity together

CALGARY'S ENERGY EQUITY STRATEGY

2025-2030



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Intended audience

This Strategy is available for anyone to read. You might be someone experiencing energy inequity and wanting to learn more about what The City's plans are. You could be part of a community organization looking to see what initiatives are being planned for the community. Or you might work for another order of government, be an academic, or be involved in policies and interested in learning about energy inequity.

Note: All quotes in the Energy Equity Strategy are directly taken from feedback by public engagement participants in 2023.

Advancing energy equity together

CALGARY'S ENERGY EQUITY STRATEGY

The City of Calgary's Energy Equity Strategy aims to address the climate and affordability crisis by ensuring all households have access to affordable, clean energy. This strategy was developed with input from Calgarians experiencing energy inequity and interested parties supporting this work.

Vision

Calgary is an energy equitable city where people can afford to efficiently heat, cool and power their homes with clean energy.

Mission

The City of Calgary is committed to providing Calgarians experiencing energy inequity with tailored and affordable energy equity programming.

Priority areas

To address the complexity of energy inequity, the Strategy focuses on several key priority areas.



Home energy efficiency

- Energy efficiency upgrades and education
- Indigenous programming



Engagement and collaboration

- Continue community engagement
- Collaborate with organizations and other levels of government



Energy affordability

- Advocate for energy pricing policies
- Reduce city utility fees



Monitoring and reporting

- Establish monitoring and reporting framework
- Communicate progress

UNDERSTANDING ENERGY EQUITY

Energy equity ensures all households have access to affordable energy for a reasonable quality of life. Energy inequity occurs when households struggle to afford their energy needs alongside other basic needs, disproportionately affecting seniors, single-person households, racialized groups, renters, and other marginalized communities. This can be addressed through a combination of home energy efficiency, utility affordability, and increasing disposable income.



1 in 7 homes
cannot afford to heat,
cool and power their
homes in Calgary

BENEFITS OF ENERGY EQUITY



Improved health
and well-being



Reduced
pollution



Economic savings
and job creation



Increased climate
resilience



Building community
strength



Educational
opportunities



Land acknowledgment

The City of Calgary, where the Bow and Elbow rivers meet, was historically a place of confluence where the sharing of resources, ideas and opportunities naturally come together. Long before Scottish settlers named it Calgary, the original Indigenous Nations of this area had their own names for the land. In the Blackfoot language, it is called Moh-kins-tsis. The Îethka Nakoda Wîcastabi First Nations refer this place as Wicispa Oyade and the people of the Tsuut'ina nation call it Guts-ists-I. The Métis call the Calgary area Otos-kwunee.

We would like to take this opportunity to appreciate and acknowledge that we are gathered on the ancestral and traditional territory of the Blackfoot Confederacy, made up of the Siksika, Piikani, Amskaapiikani and Kainai First Nations; the Îethka Nakoda Wîcastabi First Nations, comprised of the Chiniki, Bearspaw, and Goodstoney First Nations; and the Tsuut'ina First Nation. The City of Calgary is also homeland to the historic Northwest Métis and to the Otipemisiwak Métis Government, Métis Nation Battle River Territory (Nose Hill Métis District 5 and Elbow Métis District 6). We acknowledge all Indigenous people who have made Calgary their home.

Indigenous peoples have maintained a strong connection with the environment throughout history; a connection that is integral to the survival of their physical, social, economic, cultural, and spiritual ways of life. Indigenous traditional teachings also see all aspects of our communities as interrelated – human and non-human. As humans have evolved, energy, a non-human element, has become a fundamental basic need. Energy equity is about ensuring everyone has access to reliable and affordable energy in their homes to be comfortable and healthy. We acknowledge Indigenous teachings passed down and work to uphold Indigenous knowledge and priorities as we strive for a sustainable energy future in Calgary.

“We need to go back to our foundations, back to cleaner and healthier ways that don’t harm mother earth. Energy efficiency is a good step forward, but it is also about uplifting our communities - making people’s lives even a little bit easier. It’s about ensuring that us, our children, and grandchildren can all live with dignity and comfort.”

- Earnest Poundmaker, Elder

PART 1: WHAT IS ENERGY EQUITY?

Calgary is in a climate and affordability crisis. Energy equity is one piece of solving these challenges.

The climate crisis means that our planet is experiencing significant changes in weather and temperature - such as extreme heat, extreme cold, fires and flooding - because of greenhouse gases from burning fossil fuels. These extremes place a greater burden on equity-denied and low-income communities who are vulnerable to rising costs linked to climate change. As housing and energy costs rise, the affordability crisis exacerbates these problems. The City and Calgarians need to act now to reduce these effects and protect our future.

Everyone should have clean and affordable energy as we progress towards our goal of building a net-zero community – a community that does not rely on fossil fuels. The transition to net zero involves significant upfront costs. Low-income households may struggle to afford upgrades, and to afford increasing energy costs.

People who have the smallest individual impacts on our climate are the people who suffer consequences the most!

Energy inequity occurs when a household needs to make trade-offs between paying their energy bills and paying for other life essentials.

To support an equitable clean energy transition, The City must prioritize people vulnerable to climate change and people experiencing energy inequity to ensure Calgarians can meet their basic needs, improve their quality of life and thrive in our vibrant city.

This Strategy was created through a comprehensive multi-phase engagement with the community. Advancing energy equity together will help work towards a city where people can afford to efficiently heat, cool and power their homes with clean energy.



What are energy efficient homes?

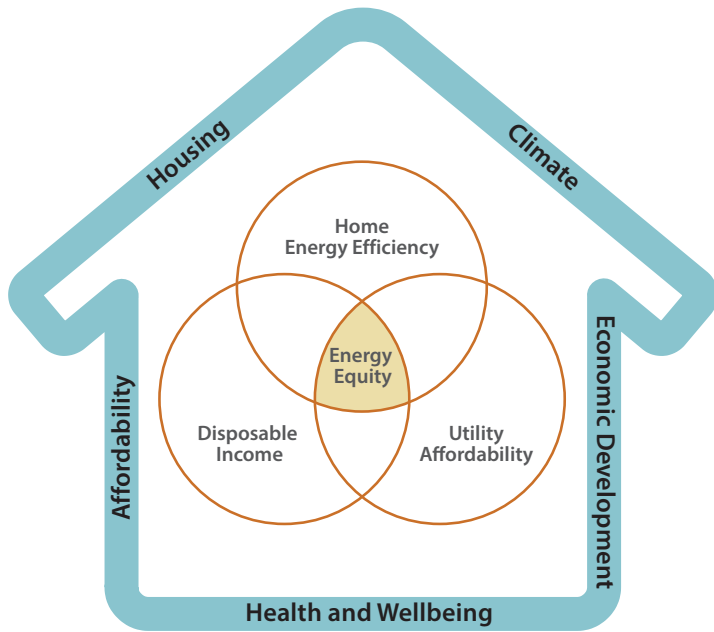
Homes that use less energy to operate due to LED lighting, insulation or high-efficiency furnaces. Energy-efficient homes cost less to power and heat, leaving more money in the homeowner's or renter's pocket.



“My pension does not allow me to buy things like windows, heat pumps, etc. In the winter, I have to make some tough decisions when my utility bills are at their highest.”

- Engagement participant





Understanding energy equity

Energy equity is complex and multi-faceted.

Energy equity has three root causes: home energy efficiency, cost of utilities and disposable income¹. Together, these factors determine if a household can meet their energy needs without financial strain. Energy inequity is interconnected with other facets of life: housing, affordability, climate, economic development, health and wellbeing. Supporting energy inequity helps support each of these facets and vice versa.

People need energy in their homes every day. **The three root causes are often made worse by systemic marginalization such as racial inequity, income gaps, inadequate housing policies and exclusion from energy-efficiency programs.** Globally, energy inequity is often defined by a ratio between income and energy costs, which has its limitations. With no universal definition in Canada, The City has developed a methodology that also considers all basic living costs, providing a more fulsome picture of the households situation.

Energy equity

Energy equity creates a city where all households have access to affordable energy for a reasonable quality of life and well-being.

Energy inequity¹

1. A household that spends more than 9% of it's after-tax income after paying for shelter costs on their energy bills AND cannot afford to pay for basic living needs.
- AND**
2. The household cannot afford Calgary's Market Basket Measure² costs (includes basic living costs).

Energy burden

The portion of energy costs that are more than 9% of the household's income.



For a more detailed explanation on the methodology, please view [Appendix B](#).

¹ Energy inequity is also known internationally as energy poverty. The City chose to use energy inequity based on conversations with Calgarians about which wording better reflects their experience.

² Market Basket Measure (MBM): Canada's official measure of poverty based on the cost of a basket of goods and services, representing a basic standard of living for a family of four. It includes shelter, transportation, food and clothing. The MBM is annual and city specific - Calgary's MBM in 2023 was \$57,909 (StatsCan 2022).

³ For this calculation, income, energy costs and MBM are equalized: they are adjusted for variables in household size and composition so that they can be compared.

A family's energy burden

A family of four has an annual after-tax income of \$20,000. Every month, after paying for rent, food, clothing, transportation and other basic necessities, they have \$150 left to pay utility bills. Their utility bill this month is \$250, leaving \$100 unpaid. This family is experiencing **energy inequity**.

Their **energy burden** is the portion of their utility bill that is greater than \$150 because 9% of their after-tax income of \$20,000 is \$150 per month.



• **Energy inequity**

A household that spends more than 9% (double the median) of its after-tax income after paying for shelter costs on electricity and natural gas to maintain a reasonable level of heat and power.

• **Energy burden**

The portion of energy costs that are more than 9% (double the Calgary median) of the household's income.

Further details on the methodology can be found in **Appendix A: Energy equity methodology**.

PART 2: WHY IS AN ENERGY EQUITY STRATEGY NEEDED?

As the climate is changing and there becomes a higher need for heating and cooling homes, people will be in more need than ever for efficient homes that can maintain comfortable temperatures.

Calgary's energy equity challenge

The data shows that energy inequity is a large problem in Calgary, with **14.2% or 1 in 7 households struggling to pay their energy bills**. Action needs to be taken.

Most of these households are made up of just one person, which means individuals living alone are hit the hardest. Renters, low-income households and people living in older homes are also more likely to experience energy inequity. The data also shows that people who experience systemic barriers are also likely to be highly affected including racialized people, immigrants and Indigenous Peoplesⁱⁱⁱ.



Indigenous Peoples are already disproportionately affected by climate change. The impacts of energy inequity and unhealthy homes are ill-suited to the environments they are built in and compound the impacts^{iv}.

Calgary has **60,260** households experiencing energy inequity

Households experiencing energy inequity often belong to more than one group, highlighting the intersectional nature of this issue.

86%
are single person household

8%
are lone parents

60%
are living in homes older than 1990

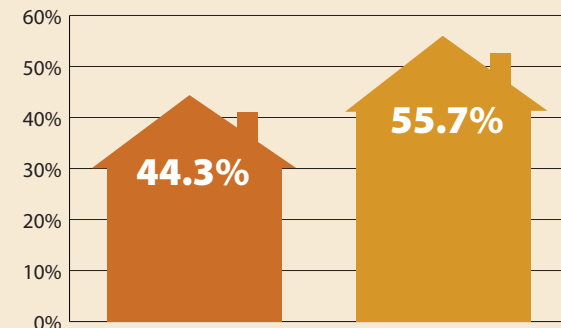
6%
are immigrants

32%
are seniors

4%
are Indigenous Peoples

29%
are racialized groups

Percentage of those experiencing energy inequity that are homeowners and renters



Renters are more likely than homeowners to be experiencing energy inequity.

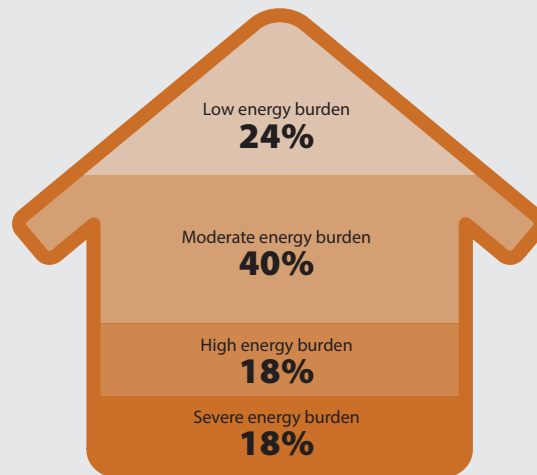
Energy burden

About 64% of Calgary households experience low or moderate energy burdens, meaning they struggle to pay up to 50% of their energy bills. 36% of Calgarians struggle to pay between 51 – 100% of their energy bills. This burden means households can't afford a portion or all of their utility bill or have to give up other basic needs to pay for their energy.

This information helps us focus programs and support on the people who need the most help. Making sure all Calgarians have access to affordable energy creates a more equitable future for us all.

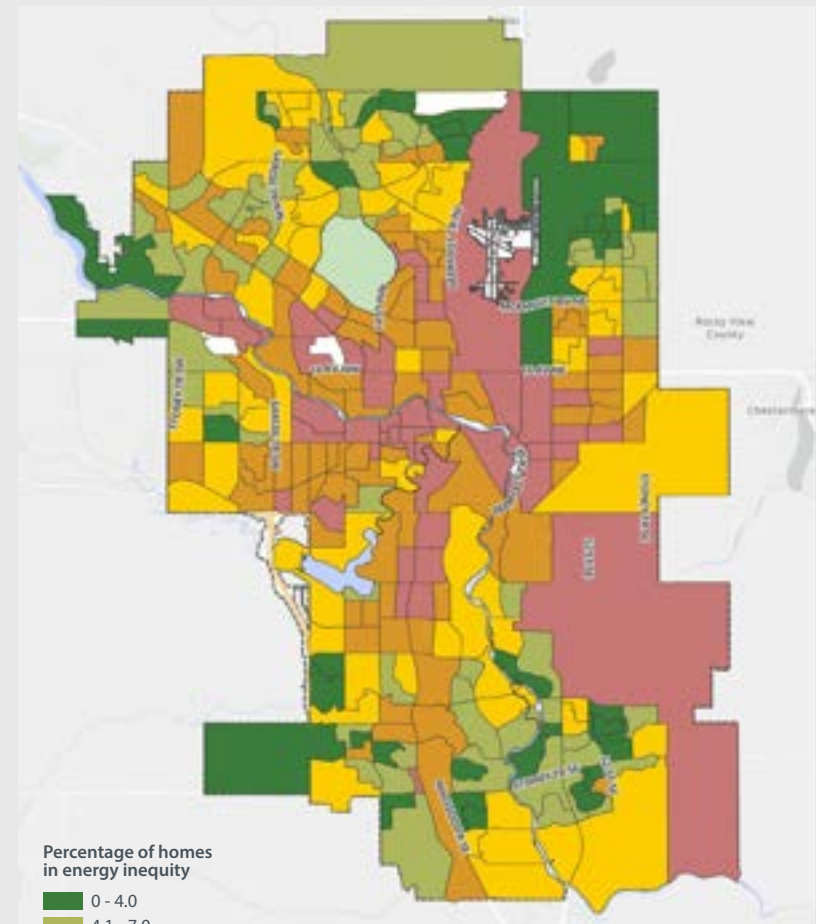
Levels of energy burden

A low energy burden is when a household can't afford up to 25% of their energy bills, a moderate energy burden is between 25-49%, a high energy burden is between 50-75% and a severe energy burden is greater than 75% of their energy bills are not able to be paid.



In 2023, there was over \$62 million in total energy burden across Calgary. This is equivalent to paying the annual energy bills for approximately 19,600 average households.

Where is energy inequity in Calgary?



To view a color blind version of the map, please view [Appendix C](#).

Energy inequity can happen in any part of the city. It is most common in households closer to the city centre, the northeast and southeast quadrants, and in older communities where homes are less energy efficient.



Split incentive dilemma: some landlords are not motivated to improve rental housing energy efficiency because they don't pay the utilities and renters do not have the ability to make improvements since they don't own the house.

"I'm a single mom who is suffering health issues because of malnutrition... constantly on the brink of eviction because of the high costs of living right now."

- Engagement participant



How energy equity affects Calgarians

With climate change and increasing socioeconomic inequalities, energy inequity is expected to increase^{vii}. The City aims to reduce the impacts of energy inequity and improve people's quality of life, while helping support climate and affordability issues along the way.

Energy inequity causes people to suffer

- High levels of anxiety and depression because they don't know if they will have heat and power, and ultimately, if their challenges will result in losing their homes.
- Choosing between heating their homes and eating enough food, or healthy food^{iv}.
- Risks to their health. To reduce costs, home temperatures are too cold or too hot.
- Increased mortality and illness risks from:
 - Living in cold temperatures.
 - Pre-existing health conditions or may cause health issues like cardiovascular disease, asthma and other chronic respiratory symptoms^{vi}.
 - Not having the ability to filter and cool air during summer heat and smoke conditions due to climate-related wildfires and extreme heat exposure.
- Costly home damages and repairs caused by climate change and extreme weather.
- Relying on cooking elements to warm buildings, which is a significant fire risk.
- Being unable to study or complete homework because of limited energy for electronics or lightingⁱⁱ.
- Some landlords won't prioritize energy efficiency, increasing vulnerabilities for renters.

Behind closed doors: Calgarians stories of energy inequity

Energy inequity impacts are not felt equally; despite trying to consume less energy to reduce utility bills, struggling Calgarians have the least resources (support, finances, access, etc.) available to respond to climate impacts.

Phil's Story

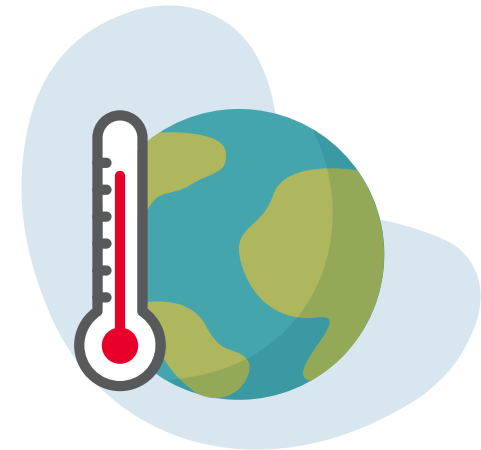
Phil, a 68-year-old widower, was facing ongoing financial challenges after losing his wife and suffering heart failure. After being retired for a few years, he returned to work to make ends meet. The COVID-19 pandemic shut down his seasonal work, which forced him to sell his home. Now living in a small apartment, Phil's grocery budget has dwindled to \$15 a week, forcing him to survive on inexpensive food that is often unhealthy, such as hot dogs, beans and rice. Phil also requires heart medication that is difficult to afford and sometimes has forced him to take less medication than was prescribed. Assistance from Rise Calgary provided temporary relief for his mounting utility bills, but the costs keep increasing and he is unable to keep up. Despite his efforts to conserve energy and cut back on expenses, Phil's situation has not improved, highlighting the impact of energy inequity on his life and well-being.



Disclaimer: The photo shown is for illustrative purposes only and does not represent the person in the story.



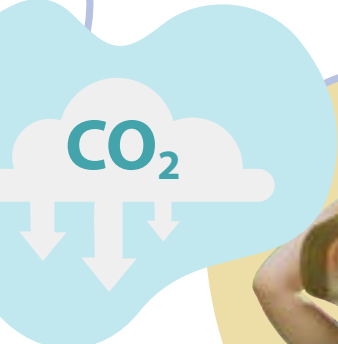
15% of Canadians reduce or miss out on basics like food and medicine to pay for energy bills at least one month in the last 12 months^{iv}.



Climate change is exacerbating energy disparities. With larger temperature extremes expected to continue in the future, additional energy consumption will be required to heat and cool homes. This will impact those who are already suffering from energy inequity the mostⁱⁱ.

"This is a unique opportunity to make a significant dent in emissions and climate change."

- Engagement participant



"Thank you for allowing me to feel included."

- Engagement participant



Benefits to community through energy equity

Improving energy equity in Calgary will strengthen our community and offer benefits, including:

- **Health, well-being and safety:** Improved home energy efficiency leads to healthier living environments, reducing risks associated with inadequate heating or cooling, such as respiratory issues from mold or heat stress. Improved living conditions also reduces the mental and physical health risks associated with energy inequity^{vi}.
- **Reducing pollution:** Calgarians can all feel the pride of actively working towards Calgary's goal of net-zero emissions by 2050.
- **Climate resilience:** Home upgrades improve home resilience to climate hazards, such as extreme heat, cold and smoke.
- **Economic savings:** Improving energy efficiency in homes reduces energy costs, allowing households to save money now and in the future. More disposable income for other essential needs can help stimulate the economy.
- **Community strength:** People who are free of energy burden and protected from climate hazards have greater chances to grow their careers, support their families, learn and build skills, and be active participants in their communities^{vi}.
- **Educational opportunities:** Empowering individuals with knowledge about energy efficiency and sustainability reduces energy consumption and fosters a broader cultural shift toward energy-conscious behaviors.
- **Job creation:** Implementing energy equity programs contributes to economic growth and creates jobs in various sectors, such as construction, energy efficiency and home retrofitting.
- **Building awareness:** As the strategy is implemented and initiatives are launched, awareness will be brought to both energy efficiency and programs that people can access.

Behind closed doors: Calgarians stories of energy inequity

Emmet and Odette's Story

Originally from Africa, Emmet moved to Calgary 14 years ago. He has built a life here with his wife, Odette, and their four children, ages 8-12, in southeast Calgary. They own their home and are both employed. Increasing costs of living have put significant financial strain on their family. Every month they just get by, covering their essentials and then paying what they can toward their utility bills so they don't get disconnected – an all-too-familiar feeling for their family. Emmet and Odette's family has been disconnected from energy twice. One month their utility bill was \$300 but they could only pay \$100; slowly and over time, that \$100 became \$1000 and they were disconnected. A local organization was able to provide crucial support, covering their utility costs and providing food to get them back on track. Despite the assistance, the stress of potential disconnection looms each month. Their family tries to reduce their energy use in any way they can. They don't do laundry as often as they would like; they turn off the heat in the winter when they are not at home; they wear several layers of clothing until their home warms up. They would like to get better windows and solar panels, but it is not in the budget. Their priority is to save for their children's future and education.



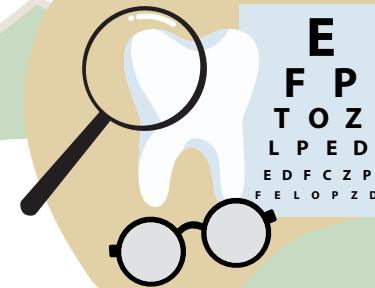
Disclaimer: The photo shown is for illustrative purposes only and does not represent the person in the story.



Equity-denied communities are groups of people who experience systemic barriers and unfair differences in accessing resources, opportunities and services because of their race, ethnicity, income, gender and/or disability.

"I am putting off buying groceries and paying for dental and optical needs to just pay electric bills!"

- Engagement participant



PART 3: HOW WILL ENERGY EQUITY BE ACHIEVED IN CALGARY?

Energy equity in Calgary will be achieved through a comprehensive strategic framework built from research and engagement that focuses on four key priority areas: improving home energy efficiency, promoting energy affordability, fostering engagement and collaboration, and implementing monitoring and reporting mechanisms.

The path to our Energy Equity Strategy

To better understand energy equity in Calgary, the Strategy was built on two main pillars: research and comprehensive community engagement. Listening to the voices and needs of community members and other interested parties were key to developing a comprehensive strategy.

Local and international jurisdictional scans were conducted and about 20 organizations were interviewed to plan the engagement approach.

Engagement approach

What we did:

- Phase 1: Learning what the impacts of energy inequity are and potential solutions.
- Phase 2: Feedback on draft solutions and assessing parts of the draft strategy.
- Phase 3: Testing the full draft strategy and program approach.

What we offered:

- Honorarium a
- Child care
- Transportation
- Food
- Accessible venues
- Translation tools

Who we talked to:

- Community advisory panel of diverse community members with lived experience and expertise (Phase 1, 2, and 3).
- Organizations that support people with lived experience (Phase 1 and 2).
- Five focus groups (newcomers, lone parents, Indigenous Peoples, persons with disabilities, and a diverse group of people) (Phase 1).
- Utilities (Phase 1.)
- Non-market and affordable housing (Phase 1 and 2).
- A broad range of Calgarians through a publicly available survey (Phase 1).



434
people engaged

Who are the Calgarians we talked to?

54%
renters

51%
low-income

37%
racialized
people

The City heard directly from Calgarians facing energy inequity, with **88% of participants having lived experience**. People were clear about the impact energy inequity has on them and what is needed to make programs successful.

For further details the What We Heard Reports can be found [online here](#)³.

³The What We Heard Reports can be found online here: engage.calgary.ca/energyequity

The strategic framework

Vision

Calgary is an energy equitable city where people can afford to efficiently heat, cool and power their homes with clean energy.

Mission

The City of Calgary is committed to providing Calgarians experiencing energy inequity with tailored and affordable energy equity programming.

Guiding principles

The City will use these principles as the foundation for decision-making:



Providing equitable and accessible supports that address community needs through barrier-free and tailored initiatives.



Applying people-first approaches in the design, delivery and evaluation of programs and policies.



Embracing adaptability to adjust to changing situations, use innovative approaches and continually improve initiatives based on feedback.



Building trust and accountability with Calgarians through transparent communications, inclusivity and data-driven, decisive action.



Engaging with community to learn from their lived experience, develop effective solutions and empower participation.



Committing to affordable and efficient initiatives by maximizing cost-effectiveness and streamlining processes to ensure services remain accessible and affordable.



Calgary's Climate Strategy sets the path for progressing towards net-zero greenhouse gas emissions by 2050. This will also support the United Nations Sustainable Development Goal #7 (affordable and clean energy) and the Global Covenant of Mayors for Climate and Energy, Energy Access and Poverty Pillar.

The City is committed to addressing climate impacts on our community and reduce greenhouse gas emissions. To do so, The City has established aspirational targets that The City is working towards.

Aspirational targets: The Calgary Climate Strategy outlines the actions that are needed to achieve Calgary's climate targets and how quickly they need to happen. The Climate Strategy targets are to work towards net-zero GHG emissions by 2050.

Energy equity is one component in this effort.

To reach net zero by 2050, energy inequity would need to be eliminated by 2050.

These targets are aspirational and meant to represent the scale of the challenge to reach The City's desired climate outcomes, highlighting that a large amount of change is needed quickly. While this Strategy alone won't achieve our aspirational targets, it lays the groundwork for future progress. Eliminating energy inequity is a long-term target, achievable through early initiatives, sustained long-term support and collaboration with partners.

Priority areas and implementation

Four priority areas address energy inequity and ensure equitable initiative access for all Calgarians.

Priority areas



Home energy efficiency



Engagement and collaboration



Energy affordability



Monitoring and reporting

The City's role

There are three primary ways for The City to address energy inequity:

- **Improve home energy efficiency:** Opportunities for enhancing home energy efficiency will help reduce utility costs. The City has influence over home energy efficiency, buildings and programs.
- **Promote energy affordability:** The private utility market in Alberta presents challenges for municipalities to directly impact this lever, but The City can advocate for equitable rate policies that result in long-term benefits as well as make some changes to City administrative charges on energy bills.

- **Support increasing income:** While employment and income supports are primarily the responsibility of the provincial and federal governments, The City collaborates and advocates for funding and services with other orders of government, as well as supports income-related measures (such as low-income subsidies).

This Strategy has a focus on improving energy efficiency – which The City can influence more directly – while advocating for change in the other areas. Focusing on energy efficiency reduces the reliance on energy overall, without sacrificing household comfort, and is a longer-term solution. Programs that focus on energy affordability and income tend to be time-limited and eventually the problem arises again.

"I qualify for loans for home upgrades but don't have money to pay those off. It's a terrible situation to be in. We're now going to the food bank because costs of everything have risen so much."

- Engagement participant



"...we can reduce global energy consumption by 31% without reducing economic output, saving over \$2 trillion in annual energy costs^x."



Priority area #1: Home energy efficiency

The City aims to support people who face barriers to existing home efficiency programs. Improving energy efficiency will help households become more resilient to energy price fluctuations over time and save people significant costs long-term.

Objectives and initiatives

1.1 Create energy-efficiency initiatives that are accessible for all Calgarians.		
Launch an energy efficiency program for income-qualified, renters and homeowners. The program will aim to have protections for renters to avoid displacement or increased rental rates.	<p>Foundational</p> <p>Short</p>	<p>Enable</p> <p>\$\$</p>
Continue to fund the Home Upgrades Program (HUP) while developing new programs and supports.	<p>Foundational</p> <p>Ongoing</p>	<p>Enable</p> <p>\$</p>
Co-create a Calgary-based urban Indigenous energy-efficiency program.	<p>Foundational</p> <p>Medium</p>	<p>Partner</p> <p>\$</p>
Create education and training programs to empower Calgarians who are experiencing energy inequity.	<p>Emergent</p> <p>Short</p>	<p>Enable</p> <p>\$</p>
Explore the suitability of a community solar program that community members could participate in even if they cannot put solar on their homes.	<p>Emergent</p> <p>Medium</p>	<p>Enable</p> <p>\$\$\$</p>
1.2 Incorporate equity into other initiatives focused on energy efficiency		
Explore a deep energy retrofit pilot with specific considerations to enable access and participation for those experiencing energy inequity. Deep energy retrofits require extensive upgrades to achieve significant reductions in household energy use and must be made possible for all homes in the city to progress towards our climate goals.	<p>Emergent</p> <p>Short</p>	<p>Enable</p> <p>\$\$</p>
Explore including landlords in the Clean Energy Improvement Program (CEIP) . This would reduce emissions from rental properties and provide renters with the health and comfort benefits of an energy-efficient home. The existing CEIP provides homeowners with flexible financing for energy-efficiency upgrades that is repaid through their property tax.	<p>Emergent</p> <p>Long</p>	<p>Enable</p> <p>\$\$\$</p>
Create a climate equity toolkit to guide accessibility considerations in City programs and initiatives.	<p>Foundational</p> <p>Short</p>	<p>Enable</p> <p>\$</p>

Initiative types

Foundational:

Short-term programs with dedicated funding until the end of 2026.

Emergent:

The Strategy is intended to be nimble and some initiatives have been identified to be further explored. New opportunities may also be considered.

Initiative timelines

Short: 1 year

Medium: 2-4 years

Long: 4+ years

Ongoing

Funding required

\$: <\$1M

\$\$: \$1-3M

\$\$\$: \$3M+

Initiative roles

Enable: The City directly funds and resources the initiative.

Advocate: The City advocates for systemic change with other orders of government and within the private sector.

Partner: The City leverages strengths of third parties to support initiatives.

Explore connecting the energy equity initiatives to The City's Home Energy Label Program. Combining data from these initiatives could demonstrate the impact the energy equity work has and promote greater awareness of home energy-efficiency.



1.3 Enhance the capacity of non-market housing providers to access energy-efficiency initiatives.

Explore education and training programs to offer preferential access and additional support for non-market housing providers. These programs will provide tools and resources to improve their energy efficiency and reduce energy costs.



Explore an energy-efficiency and solar incentive opportunities for non-market housing providers.



Explore energy-efficiency education opportunities for non-market housing tenants.



Explore financing opportunities for energy efficiency and solar upgrades for non-market housing providers.



Priority actions:

- Launch an energy equity pilot program by the end of 2025.
- Complete the design of the Indigenous Home Energy Program by the end of 2026.



Non-market housing is rental or for-sale housing that is provided at a lower cost for people who can't afford regular rental prices, often supported by the government or non-profit organizations.



Many of the initiatives identified for implementation are considered pilots. The City will test programs to see what works best and continuously improve based on the learnings.



Energy efficiency programs typically include incentives (cover a portion or all of the cost) for home upgrades such as windows, insulation and weather stripping.



Priority area #2: Increase energy affordability

The City's role in energy affordability is focused on reducing City fees on utility bills and supporting utilities in energy equity initiatives.

Objectives and initiatives

2.1 Advance energy equity by reducing City fees.

Reduce The City's portion of Local Access Fees (LAFs) on utility bills.

Internal city partner: Corporate Planning and Performance



2.2 Support and encourage energy equity with utility retailers and other orders of government.

Work with the provincial government on utility affordability and advocate for energy pricing policies and regulatory measures that consider energy equity.

Internal city partner: Intergovernmental Relations



Advocate to the provincial and federal governments and the Alberta Utilities Commission to support demand-side management⁴.



Provide support to utility retailers that are proposing energy-efficiency and/or energy-equity programming.

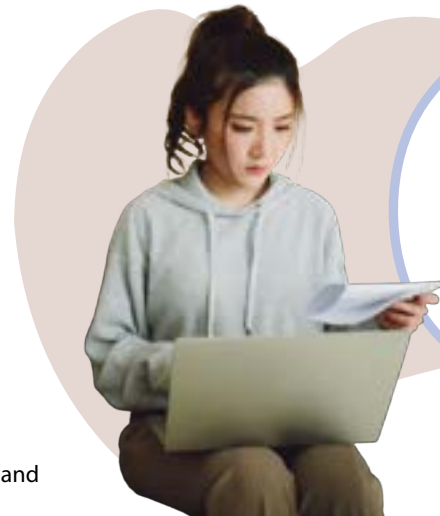


Facilitate data sharing between utility retailers and The City.



Priority actions:

- Reduction in the City-related administrative fee (LAF) on energy bills by 2026.



"I did everything they said to do to improve efficiency when I bought the house 20 years ago ... I live alone, my utilities have practically doubled in the past 2 years...while I've been able to meet my bills in the past it's getting harder all the time..."

- Engagement participant

⁴ Demand-side management (DSM) is a combination of programs that reduce energy consumption and includes income-qualified utility programming and support to address energy inequity.



Priority area #3: Engagement and collaboration

Energy inequity affects many Calgarians, but no single organization has the authority or resources to resolve it alone.

Objectives and initiatives

3.1 Foster collaboration with other business units across The City to integrate energy equity into relevant initiatives.		
Explore opportunities for incorporating energy equity into other City programs.	Emergent Medium	Partner \$
Collaborate with other business units on energy equity programming.	Foundational Ongoing	Partner 0
3.2 Build trust in The City's energy equity initiatives.		
Develop a community outreach plan to stay connected with the community, through open lines of communication and creating opportunities for collaboration.	Foundational Short	Enable \$
Collaborate with local organizations and community leaders on new initiatives, advocacy efforts and Strategy updates.	Foundational Ongoing	Partner \$
Engage with community members in new program and initiative development.	Foundational Short	Enable \$
3.3 Build and strengthen relationships with other levels of government to support energy equity initiatives.		
Establish regular communication channels with counterparts at other levels of government to align strategies, share insights and coordinate energy equity efforts.	Foundational Short	Partner 0
Explore opportunities for funding and/or joint programs to expand program reach. <small>Internal city partner: Capital Investment Planning</small>	Emergent Short	Partner 0

Priority actions:

- Develop a community outreach plan by the end of 2025.



Collaboration with community organizations, utilities, within The City and other orders of government is necessary to achieve our community's goals.



Priority area #4: Monitoring and reporting

Effective monitoring and reporting during implementation are key to the success and continuous improvement of the Strategy and initiatives through helping identify barriers, address gaps and seize opportunities for improvement. This approach supports transparency, accountability and data-driven decision making.

Objectives and initiatives

4.1 Establish a monitoring and reporting framework to track progress and ensure accountability.

Establish metrics and indicators to track progress towards the targets and objectives.	Foundational Short 	Enable
Conduct regular evaluations and assessments to identify barriers, gaps and opportunities for improvement in the implementation of the strategy and initiatives. Frequent monitoring will allow for quick program changes.	Foundational Ongoing 	Enable
Explore potential for greater municipal data collection or sharing to support program development and reporting.	Foundational Ongoing 	Partner
Conduct an equity analysis and assessment with the equity team on each new program being developed. <small>Internal city partner: Community Strategies</small>	Foundational Short 	Partner

4.2 Increase transparency and public awareness.

Create a communication plan to share progress on the Strategy, outcomes and initiatives.	Foundational Short 	Enable
Report publicly on progress regularly.	Foundational Ongoing 	Enable
Use storytelling and share success stories and lessons learned to convey the impact of the Strategy and initiatives.	Foundational Ongoing 	Enable

Priority actions:

- Establish metrics and indicators by the end of 2025.
- Report on progress publicly.
- Create a communication plan by the end of 2025.
- Conduct annual evaluations to identify and address barriers, gaps and opportunities.

Roles in energy equity

Understanding the various roles in energy equity is crucial, as multiple interested parties play integral parts in shaping how energy and programs are accessed by communities.

Who's involved in energy equity

- **Utilities:** Distributors are the regulated utilities that deliver electricity (ENMAX) and natural gas (ATCO) to your home and keep the power lines and pipelines working. Retailers are the businesses who customers choose to buy their energy from and who send customers their energy bills.
 - The City is the sole shareholder of ENMAX but does not control or direct ENMAX's operations. ENMAX supports The City by acting as the billing agent for The City's water, wastewater, stormwater and waste-management services and pays annual dividends to The City.
- **Provincial government:** The Government of Alberta creates rules and policies that affect energy prices and the building codes for houses and new buildings, including energy efficiency.
 - Part of the Government of Alberta, the Utilities Consumer Advocate provides information and support regarding electricity and natural gas options for homes and businesses.
- **Provincial regulators:** The Alberta Utilities Commission (AUC) regulates the rates charged by utility retailers and approves new energy projects.
- **Federal government:** The Government of Canada sets national energy policies, provides funding for energy-saving programs and regulates emissions that can affect energy costs.
- **Contractors:** Contractors play a key role in implementing energy-efficiency projects, working directly with homeowners and governments to execute these initiatives.
- **Organizations:** Non-profits and advocacy groups help advocate for fair energy policies and support vulnerable communities in accessing resources and support.

How does the residential energy system work in Alberta?

In Alberta, the energy system for homes includes electricity and natural gas. Alberta's energy market design is unique in Canada.

Electricity is made by generation companies using sources like natural gas, wind and solar. The energy is then sent across the province through power lines to reach homes. Natural gas, which is also used for heating and cooking, is taken from underground then processed and sent through pipelines to homes.

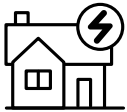
Utility retailers submit prices to the Alberta Electric System Operator (AESO), an independent government-owned entity, which manages the power pool and prices that vary depending on the demand for energy.



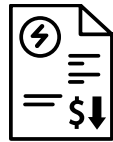
Reporting

The Strategy includes a commitment to regular and transparent public reporting on progress. Annual reports will be provided to the public with an update on performance (outcomes The City has accomplished) and progress (actions The City has completed).

The first step towards a regular reporting framework is to establish clear metrics and targets that will test the Strategy's performance outcomes; however, not enough data is currently available to identify these metrics. Over the next year, performance indicators will be developed and finalized. For each indicator, a data source will be identified and confirmed. Some examples of performance metrics may include:



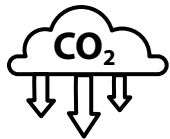
Number of households and/or Calgarians experiencing energy inequity



Reduction in energy burden



Total cost savings for households who participate in City energy equity programs



Reductions in greenhouse gas emissions



Energy savings

Annual reports will also highlight success stories and areas for improvement. Regular monitoring will help adapt initiatives and strategies based on data, feedback and learnings.

Acknowledgements

The Energy Equity Strategy was made possible thanks to the hard work and dedication of many people. We want to thank everyone who contributed to this important work.

Community advisory panel

A big thank you to the members of the community advisory panel for their guidance and expertise. Your insights and feedback helped ensure that this Strategy reflects the needs of our diverse community.

Public engagement participants

We thank all the public engagement participants, including those who took the time out of their days to share through focus groups and the survey. And to Elder Earnest Poundmaker who offered our Indigenous Peoples focus group the gifts of a smudge ceremony and a drum song. Your experiences, stories and ideas have been the foundation of this Strategy. We couldn't have done this without your voices guiding us.

Organizational engagement participants

Our gratitude goes out to the members of the community organizations who work in support of Calgarians who are affected by energy inequity among other inequities. Your perspectives throughout the creation of the Strategy helped to ground the work and make actionable. We look forward to continuing our partnerships in making it energy equity a reality.

Internal advisory committee

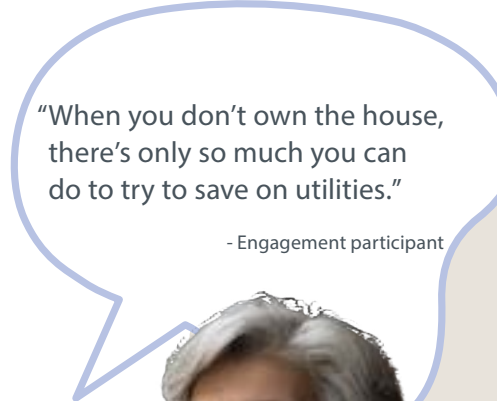
We also want to express our gratitude to the members of The City's internal advisory committee. Your expertise on equity and knowledge of broader City goals and plans has been essential to making energy equity a reality for The City and the community.

Thank you to everyone involved.

Appendices

Appendix A: Integration of engagement themes into the Strategy

Key themes	How the themes were integrated
Impact on well-being and quality of life	<ul style="list-style-type: none"> Understanding the challenges provided a foundation for the Strategy and initiatives. The intent is to mitigate these impacts as much as possible through comprehensive supports.
Tailored support, accessibility and eligibility	<ul style="list-style-type: none"> Heightened focus will be given to equity-denied communities, low-income households and renters that have historically been excluded from climate programs. Programs will be designed to prevent unintended consequences and to offer additional supports where possible. The City will co-create a program specific for Indigenous Peoples in Calgary based on feedback from the Indigenous focus group.
Financial support for energy efficiency	<ul style="list-style-type: none"> Deliver a program that offers free energy-efficiency home upgrades for income-qualified households.
Utility fees and energy bill improvements	<ul style="list-style-type: none"> While the proportion of the utility costs controlled by The City is relatively low, energy prices have risen dramatically; therefore, The City is committed to lowering prices for the consumer through changes to Local Access Fees.
Awareness building for energy equity	<ul style="list-style-type: none"> City energy-efficiency initiatives will require participation in education programs to provide a basic understanding of the energy system, energy efficiency and program expectations.
Build public trust through communication, engagement and community partnerships	<ul style="list-style-type: none"> The Strategy and initiatives will offer a wide variety of mediums (e.g. videos, infographics, etc.) and languages to reach those most impacted. Engagement will be foundational when creating new initiatives with the public and with non-traditional partnerships that will allow The City to connect with community members.
Reporting and storytelling	<ul style="list-style-type: none"> Baseline data will be gathered to monitor and publicly report on progress as well as share lessons learned. Storytelling will be used to translate data and people's experiences, helping people learn about the outcomes. When the City shares stories and reports, they will be presented in plain language, in an approachable format and kept concise.



"When you don't own the house, there's only so much you can do to try to save on utilities."

- Engagement participant



"The federal program did not fit the needs of my home and the assessment process only covered 15 percent of the insulation."

- Engagement participant

Appendix B: Energy inequity methodology

The City of Calgary's first Energy Equity Strategy involved a comprehensive review of different methodologies to define energy inequity in the Calgary context. The chosen methodology aims to identify households that truly need support (excluding high-income households with high energy costs), understand the extent of the energy burden and use a holistic approach that considers basic living costs in addition to after-tax income. This methodology is unique compared to other studies on energy equity and will enable reporting, tracking and targeting those who need support the most.

Defining energy inequity

There is widespread agreement at a conceptual level that energy inequity (or poverty) refers to the inability of a household to maintain adequate energy services within their home. However, operational definitions of energy poverty differ in their methodology and have been evolving. The primary drivers of energy poverty are low disposable income, high energy prices and low home energy efficiency (e.g., insulation, windows, etc.). Energy inequity is a unique, multi-dimensional problem, distinct from income poverty. For a household to be in energy inequity, it is not sufficient to have a low income, to live in an energy-inefficient home or to have high utility bills. Energy inequity is a combination of two or more of these markers.

When households are pushed into energy inequity by paying disproportionate energy bills, they have an energy burden. The energy burden represents the basic needs for energy services that the household cannot afford. In other words, energy burden represents the portion of energy costs a household cannot currently afford but must pay to move out of energy inequity.

By measuring energy inequity, we hope to:

- Understand the scale of the problem (i.e. How many Calgarians are affected and how severely are they affected?)
- Identify who is affected, what type of home they live in and where the home is located.
- Inform strategy and initiative design, and ensure resources and funding are targeting those experiencing energy inequity.
- Monitor progress, measure and understand trends (i.e. Is the problem getting better or worse over time and why? Are policy interventions working?)

The methodology development involved:

1. Identification and research into current practices and specific indicators;
2. Testing a list of indicators using a sample of geographies in Calgary to see the strengths and weaknesses of each; and
3. Selecting a Calgary indicator that will measure and track energy inequity.

Measuring energy inequity

The main methods of measuring energy inequity that were reviewed are summarized below:

Indicator	Definition: a household is in energy inequity if:	Strengths	Weaknesses
10% ratio indicator	<ul style="list-style-type: none"> A household spends more than 10% of their total household income (before or after housing costs) on energy costs. 	<ul style="list-style-type: none"> Simple to calculate. Easy to understand and communicate. Allows for comparisons across jurisdictions and benchmarking. 	<ul style="list-style-type: none"> Arbitrary percentage. Does not have a high-income cut off – households are captured in energy inequity that are not the target. Sensitive to energy prices (underestimating when low, overestimating when high). Doesn't capture housing costs or other basic need costs. Doesn't capture the energy burden.
Double the median (2M)	<ul style="list-style-type: none"> A household's ratio of energy costs to household income is greater than double the median of energy cost to income ratio for the population. 	<ul style="list-style-type: none"> Simple to calculate. Easy to understand and communicate. Captures the inequalities of housing energy efficiency and income. Uses median rather than mean which is less sensitive to extreme values/outliers. 	<ul style="list-style-type: none"> Arbitrary threshold (2M). Does not have a high-income cut-off – households are captured in energy inequity that are not the target. Encourages policy focus on reducing energy bills. Doesn't capture housing costs or other basic need costs. Doesn't capture the energy burden.
After-energy cost poverty (AECP)	<ul style="list-style-type: none"> A household's after-tax income, after paying for housing, is less than a chosen poverty threshold plus home energy costs. Income and energy costs are equalized (adjusted for household size and composition). 	<ul style="list-style-type: none"> Bases the threshold on official poverty line. Income is defined after housing costs, taking into consideration household disposable income. Identifies households being pushed into poverty by energy costs. 	<ul style="list-style-type: none"> Most low-income households would be in energy inequity regardless of energy costs. Doesn't reflect basic need costs other than housing. Encourages policy focus on income, which would have a larger impact on reducing energy inequity.
Low-income, high-cost (LIHC)	<ul style="list-style-type: none"> A household's after-tax income, after paying for housing, is less than a chosen poverty threshold plus home energy costs AND energy costs are greater than the median energy costs. This is the AECP methodology with an added second threshold. Used in the UK 2015 Fuel Poverty Strategy. 	<ul style="list-style-type: none"> It clearly distinguishes between income poverty and energy inequity. Reduces the number of false positives (households included that are not in energy inequity). Captures the energy burden. 	<ul style="list-style-type: none"> Insensitive to energy price changes, which can mask hardship when prices escalate. With both income and cost being relative measures, it makes it difficult to isolate cause and effect over time. Very complex. Not transparent. Doesn't reflect basic need costs other than housing.

Indicator	Definition: a household is in energy inequity if:	Strengths	Weaknesses
Low-income, low energy efficiency (LILEE)	<ul style="list-style-type: none"> • A household has an energy efficiency rating below the target rating AND their after-tax, after-housing income after deducting required energy costs falls below the official poverty line. • UK government updated to this in the 2021 Fuel Poverty Strategy. 	<ul style="list-style-type: none"> • It clearly distinguishes between income poverty and energy inequity. • Reduces the number of false positives (households included that are not in energy inequity). • Uses an energy efficiency threshold placing emphasis on efficiency, however Canada doesn't have a rating, making it difficult to calculate. • Captures the energy burden. 	<ul style="list-style-type: none"> • Households in energy efficient homes cannot be in energy inequity regardless of their income or energy prices. • It does not take into consideration increased energy prices. • Very complex to implement. • Doesn't reflect basic need costs other than housing.
Minimum income standard (MIS)	<ul style="list-style-type: none"> • A household does not have sufficient after-tax income to pay for their required energy costs after covering housing and the basic needs required to meet a minimum standard of living. 	<ul style="list-style-type: none"> • In Canada the Market Basket Measure (MBM) can be used for a minimum standard of living. • Reduces the number of false positives (households included that are not in energy inequity). • Considers other basic living costs other than housing. • Captures the energy burden. 	<ul style="list-style-type: none"> • Some low-income households would be in energy inequity, regardless of energy costs, but less than with AECP. • Complex to calculate • Can focus on income, potentially placing less emphasis on energy efficiency or utility cost

Chosen approach

Energy inequity is a complex and multifaceted issue, requiring a nuanced measurement approach. While no method is perfect, the advantages and disadvantages were weighed, and an approach was chosen based on which method best meets our goals. The chosen approach combines two indicators – **the Minimum Income Standard (MIS) and the Double the Median (2M) indicators** – offering a comprehensive and robust methodology.

Key considerations:

1. By combining two indicators, specific shortcomings of individual indicators are addressed. For example, false positives in the 2M indicator can be addressed with the MIS indicator. Low-income households that are in energy-efficient homes that are counted in the MIS indicator can be addressed with the 2M indicator. Furthermore, the inclusion of the 2M indicator ensures more emphasis is given to energy-efficiency.
2. The energy affordability ratio of the 2M indicator (twice the median share for Calgary) should be fixed in the short term and reviewed periodically to coincide with updates to the Census of the Population or Calgary's Energy Equity Strategy.

$$\frac{\text{household energy costs}}{\text{household income}} > 2 \times \left[\frac{\text{median household energy costs}}{\text{median household income}} \right] \quad \text{AND} \quad \text{household energy costs} > \left[\text{household income} - \text{Calgary Market Basket Measure} \right]$$

Appendix D: Strategy alignments

This section highlights the alignment between the Energy Equity Strategy and other City strategies, policies and plans.

Strategy/Policy/Plan	About	Alignment with the Energy Equity Strategy
<u>Home is Here</u> – The City of Calgary’s Housing Strategy 2024-2030	Aspires to ensure everyone in Calgary has an affordable place to call home.	<ul style="list-style-type: none"> • Increase housing supply and affordability, reducing energy expenses. • Support for energy-efficient homes for affordable housing providers creates financial stability with utility costs. • Addressing housing needs of Indigenous populations, improve access to energy-efficient housing.
<u>Enough for All 2.0</u> Vibrant Communities Calgary	Poverty reduction strategy aims for a strong, supportive and inclusive community, where everyone has sufficient income and assets to thrive.	<ul style="list-style-type: none"> • Access to affordable housing reduces poverty and housing-related energy costs. • Financial empowerment supports managing energy expenses effectively.
Social Well-being Policy City of Calgary 2019	Outlines social well-being principles The City will follow when making decisions; developing plans, policies, and strategies; and delivering City services.	<ul style="list-style-type: none"> • Equitable services ensure all residents benefit from energy-efficiency programs. • Truth and Reconciliation efforts support equitable energy solutions. • Prevention approach addresses underlying social issues, including energy inequity.
<u>Age Friendly Calgary</u> City of Calgary 2019-2022	Focuses on creating an age-friendly city and prepares for an aging community.	<ul style="list-style-type: none"> • Affordable, accessible housing includes energy-efficient options, reducing energy inequity among seniors.
<u>Resilient Calgary Strategy</u> City of Calgary 2019	Vision for a sustainable, resilient city, focusing on: economy, equity and inclusion, natural infrastructure and built infrastructure.	<ul style="list-style-type: none"> • Investing in resilient, energy-efficient infrastructure supports households in managing energy costs. • Future-ready infrastructure reduces energy inequity risks.
<u>White Goose Flying</u> Calgary Aboriginal Urban Affairs Committee 2016	This report sorts the 94 calls-to-action in the Truth & Reconciliation Commission’s Report into 43 calls-to-action that The City will support.	<ul style="list-style-type: none"> • Meeting basic energy needs of urban Indigenous populations without discrimination reduces energy inequity in Indigenous communities.
<u>Dismantling Systemic Racism, Transforming Lives: The City of Calgary Anti-Racism Strategic Plan 2023-2027</u>	Serves as a blueprint in achieving a racially-just Calgary and for addressing systemic racism.	<ul style="list-style-type: none"> • Equitable programs ensure access to energy services for racialized groups, reducing energy inequity. • Anti-racism policies promote fair energy access.
<u>Digital Equity Strategy</u> City of Calgary 2023	Focusses on closing the digital divide and ensuring equitable access.	<ul style="list-style-type: none"> • Advocacy for policies reducing digital divide supports equitable access to energy program information. • Energy equity allows for access to digital resources, improving education and learning while strengthening community.
<u>Gender Equity Diversity and Inclusion Strategy</u> City of Calgary 2019	Ensures gender equity in City planning and service delivery.	<ul style="list-style-type: none"> • Removing barriers for women and gender-diverse individuals in energy programs reduces energy inequity. • Inclusive policies support equitable energy access.

Strategy/Policy/Plan	About	Alignment with the Energy Equity Strategy
<u>Mental Health and Addiction Strategy</u> City of Calgary 2021-2023	To create hope and strengthen support for people, families and communities living with mental health and addiction and improving quality of life for all Calgarians.	<ul style="list-style-type: none"> • Access to affordable energy supports mental well-being and reduces stress relating to energy inequity.
<u>Environment Strategy</u> City of Calgary	Commitment to the legacy of a sustainable and thriving city and communities.	<ul style="list-style-type: none"> • Energy efficiency and greenhouse gas reduction efforts lower energy costs, mitigating energy inequity. • Preparedness for climate change includes resilience to energy-related challenges.
Welcoming Communities Policy	Enhances immigrant lives through improved service access.	<ul style="list-style-type: none"> • Accessible energy programs for immigrants reduce energy inequity in these communities. • Addressing barriers for immigrant groups supports energy equity.
Corporate Accessibility Strategy	Reduces barriers to City services for people with disabilities.	<ul style="list-style-type: none"> • Accessible energy efficiency programs for people with disabilities reduce energy costs, addressing energy-equity.

Appendix E: References

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