



Implementing Equity

A Renewable Regina that Works for Everyone

FALL 2022



By Emily Eaton and Simon Enoch



This report was authored by Emily Eaton (University of Regina) and Simon Enoch (Canadian Centre for Policy Alternatives - Saskatchewan). We would like to thank our interviewees for sharing their time and perspectives with us. We would also like to thank Cameron Esler, Rachelle Delaney, Ian Hanington, Julius Lindsay, Ana Guerra Marin, Emmay Mah and Sarah Buchanan for their crucial help with the research and production of the report. Steven Cretney did a great job on the design.

Simon Enoch is Director of the Saskatchewan Office of the Canadian Centre for Policy Alternatives and an adjunct professor in the Department of Politics and International Studies at the University of Regina.

Emily Eaton is a professor in the department of geography and environmental studies at the University of Regina, in Treaty Four. She is a white settler doing research, teaching, and service devoted to addressing the climate and inequality crises at local and national scales and mapping pathways to transition that rectify the unjust colonial relationship that Canada has with Indigenous Peoples and marginalized communities.



CCPA
CANADIAN CENTRE
for POLICY ALTERNATIVES
SASKATCHEWAN OFFICE



University
of Regina

Faculty
of Arts



**DAVID SUZUKI
FOUNDATION**
One nature.



Introduction

As cities around the world lead on climate action, recognition is growing that success often hinges on whether policies designed to address climate change also promote equity (Adams, 2018; Kane, 2019). Climate change affects some people and communities more than others. Low-income populations, Indigenous people and people of colour are more likely to live in areas with less green space and fewer public transportation options, and farther from essential goods and services. These communities are more vulnerable to heat-related and respiratory illnesses, while living in inefficient housing and often closer to environmental hazards (Eaton & Enoch, 2020). If municipal climate policies are not designed to address these equity concerns, they can end up exacerbating existing inequities.

In anticipation of the City of Regina's Energy and Sustainability Framework (City of Regina, 2022a), we argued that equity considerations needed to be front and centre in the planning. Failure to do so would not only frustrate the success of the city's plan but could also invite backlash if the policies were perceived as unjust or unfair (Eaton &

Enoch, 2020). The release of the framework in March 2022 appears to have taken these concerns seriously. **In many respects, the City of Regina's Energy and Sustainability Framework serves as a model for the incorporation of equity as a cross-cutting consideration in municipal climate plans.** Each of the seven "Big Moves" outlined in the framework includes an equity "co-benefit indicator" to estimate whether the policy will enhance equity or require additional policies or programs to attain an equitable outcome. The City of Regina appears to stress the need for an equity lens in its climate strategy in a far more comprehensive manner than most Western Canadian cities.

This is no small feat. While more and more city-level climate action plans are including the language of equity, a startling number still fail to include equity in any meaningful way, often relegating equity concerns to secondary or tertiary goals, behind environmental or economic concerns (Adams, 2018; Fitzgerald, 2022). Conroy and Hoicka (2020) examined a global sample of 276 cities pursuing a transition to 100 per cent renewable

CO-BENEFIT	ENABLER	LOW	MEDIUM	HIGH
Equity	No discernible direct effect associated with supporting action but positive outcomes may occur in concert with other actions.	Without intervention, this action may favour certain groups or create greater disparity between equity-seeking groups and other sections of the population.	This action is more likely to be implemented in the community fairly, but existing powerful groups may still be at an advantage.	This action contributes to enhanced equity.
Employment	Enables employment	0-5 person-years of employment per \$million invested	5-10 person-years of employment per \$million invested	>10 person-years of employment per \$million invested
Cost effectiveness (CE)	–	This action will have a net cost.	This action will break even.	This action will have a net return/benefit.

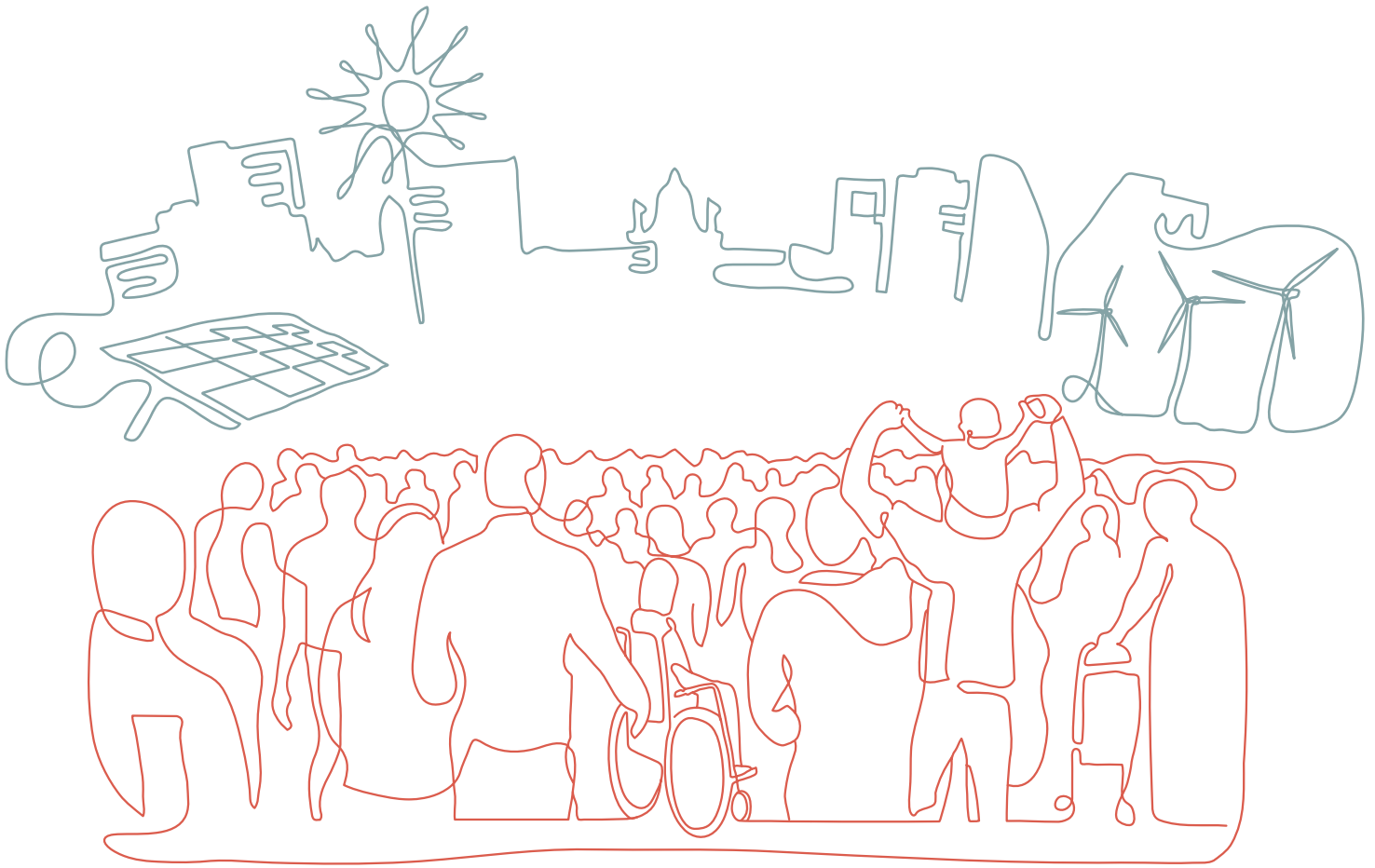
Table 1: Co-benefit indicator in the City of Regina's Energy and Sustainability Framework

energy and found only four (Saanich, Vancouver, Victoria and Paris) mentioned equity in their local energy plans.

The City of Regina deserves praise for including equity in its framework, but the more challenging work lies ahead.

While cities are getting better at including the rhetoric of equity in their planning documents, operationalizing and implementing equity into actual policy has proven more difficult (Angelo, McFarlane & Sirigotis, 2020). Indeed, the City of Regina's recent decision to allow exceptions to the density targets pledged in the Official Community Plan illustrates that commitments to sustainability are sometimes easier said than done (Ackerman, 2022).

The following report is divided into two parts. In Part 1 we explain what climate equity is and how it became seriously incorporated into the city's Energy and Sustainability Framework (ESF) and suggest what other cities can do to duplicate Regina's success. In Part 2 we explore what Regina can learn from other jurisdictions that have successfully incorporated equity into actual city-level climate policy. We provide examples from other cities that correspond with the framework's "Seven Big Moves."



What is Climate Equity?

“Climate equity” means working towards the just distribution of the benefits of climate actions (mitigation and adaptation) and alleviating unequal burdens created or exacerbated by climate change. This requires the meaningful participation of communities in identifying and addressing their needs, prioritizing resources to historically underserved communities, delivering meaningful and direct benefits to those communities and measuring and evaluating equity progress in partnership with participating communities.

Equity-deserving communities can be defined spatially; - for example, there are some neighbourhoods within Regina that are racialized and/or where there are higher concentrations of people living in poverty or on low income. There are also communities where infrastructure and services are lacking or aging. These neighbourhoods deserve investments that will help improve their residents’ quality of life. There are also equity-deserving communities

within Regina that are not defined spatially. Seniors, disabled people, LGBTQ2S+ people, Indigenous people, Black people, people of colour, poor people, newcomers, youth and others live in various locations throughout the city but should benefit first from sustainability programs and infrastructure so as to help level the playing field. Finally, Indigenous people have inherent and Treaty rights that need to be recognized and implemented. Energy transitions are opportunities to reverse the theft of Indigenous lands that cities, like Regina, are built upon. There is certainly room within climate equity to consider additional moves that might correct historic and ongoing wrongs. The “Land Back” movement, for example, has people across Canada contemplating how spaces within urban areas might be returned to Indigenous Nations and Indigenous governance.

How equity became a priority and what other cities can learn from Regina

Regina's relatively late arrival to the municipal energy transition movement allowed it to learn from other cities and to produce a framework report that, from the beginning, reserves a prominent place for the application of an equity lens. As we explain below, community groups and individual advocates played a significant role in ensuring an equity focus in the framework. Many Canadian cities are now retroactively returning to their energy planning to tack on equity analyses. Calgary, for example, commissioned the Toronto Environmental Alliance to provide an equity review of its policy as part of an update to the 2018 Climate Resiliency Strategy

(Toronto Environmental Alliance, 2022). Key recommendations from that review task city administration with developing advisory bodies for the meaningful participation of equity-deserving communities and finding opportunities to generate co-benefits for these communities. Regina is, therefore, at an advantage, having already meaningfully engaged equity-deserving communities and developed its framework with these co-benefits in mind. It is still unclear how the city will include equity and equity-deserving communities in the implementation of its energy transition. Nevertheless, there are lessons to be learned from Regina's experience.

Lesson 1: Strong direction from city council

In interviews with key informants involved in developing the Energy and Sustainability Framework, we asked how equity considerations became incorporated systematically into the final document. Several city employees stressed the importance of motions brought by sustainability-minded councillors that explicitly tasked city administration with building community engagement with marginalized communities into the framework's development. For example, at the June 17, 2020, meeting of the Priorities and Planning Committee, councillors Bob Hawkins and Andrew Stevens advanced a referral

motion that tasked administration with building a project plan for the framework that included "Details on how platforms for community and resident engagement including engagement by marginalized communities, Indigenous communities, advocacy and neighbourhood planning committees can be built into the Sustainability Framework."¹ This referral motion passed in a 9 to 2 vote and was subsequently supported in a 9 to 1 vote at the October 28, 2020, meeting of city council,² with only then-Mayor Michael Fougere voting against.

Lesson 2: Incorporate equity into energy planning requests for proposals

The strong and explicit inclusion of community engagement with marginalized and Indigenous communities, as laid out by city council, was then incorporated into the request for proposals for the Energy and Sustainability Framework consultants in December 2020. Part 1 of the RFP states, "It is important that Regina's ESF is developed in a way that embeds community engagement throughout the process and pays special attention to the impacts of climate change adaptation and mitigation on traditionally underrepresented people and groups" (p. 3). Under "Deliverables," the RFP

suggests proponents should keep the following (among other priorities) in mind: "The final ESF should be able to identify a combination of mitigation and adaptation pathways that allows the City to maximize economic prosperity and social equity between 2020 and 2050. The principle of 'no one left behind' will be central to identifying this 'best-fit' scenario" (p. 22). And finally, two of the 11 questions that the "proponent should propose a solution to" in the RFP include explicit references to equity.³

1 <http://reginask.iqm2.com/Citizens/FileOpen.aspx?Type=12&ID=2648&Inline=True>

2 <http://reginask.iqm2.com/Citizens/FileView.aspx?Type=12&ID=2699>

3 The direct appeal to equity in this section includes number 6, "What key indicators can be used to assess the future state of the City's social equity and economic growth and prosperity, in the context of the modelled mitigation and adaptation pathways?" and number 7, "Using these indicators, what are the co-benefits and co-harms of the BAU scenario compared to achieving emissions reductions by 2050 with respect to economic goals and outcomes that maximize social equity in the municipality (p. 24)?"

It is clear, then, that equity was communicated as a priority to the framework's consultants and may have played a part in the city hiring Sustainability Solutions Group (SSG) as its consultant. According to one city employee we interviewed:

[Equity] is a concern for [SSG]. It's clear that they care in a way that maybe other proponents, other groups that may be able to do the technical side of that work probably don't. Like if we're looking at how do

you solve a math equation, carbon accounting, that's different than how do you do it equitably.

Another member of city administration suggested, "[SSG] even said, when they came back to us, 'We've never seen an RFP so clear on the requirements for equity. Like from anything that we've seen, it was super clear that equity was one of your big concerns.'"

Lesson 3: Equity is key to community buy-in

Interviews with city employees revealed a good understanding of how important engagement is to the success of local energy transition planning. Reflecting on the lessons Regina's team learned from other jurisdictions, this interviewee suggested:

Other cities, for instance, did not do hardly any engagement. And that was the Achilles heel of their programs as they tried to move them forward...they didn't engage internally or externally with a lot of groups. So they didn't have a lot of buy-in moving forward, or they didn't necessarily understand the sticking points within the community...So that was the first inkling we had that, you know, oh, we really do need to engage.

Another employee suggested that the City of Regina could do still more to engage with marginalized communities by moving consultation and engagement strategies out into the spaces and forums where equity-deserving people are already engaged in their communities. This employee noted that equity concerns were often voiced by groups and people with no direct experience with the axes of inequality about which they were speaking. In other words, while many groups spoke about the need for lower-income people and renters to benefit from energy retrofits, there weren't tenants' rights or anti-poverty groups at the consultations. So while the city recognizes that engagement is necessary for community support and buy-in, it could do much more to ensure that people who have experienced marginalization find a prominent role in implementing the plan.

Lesson 4: Pressure from community groups delivers the goods

Perhaps the most important factor leading to a strong equity focus in the consultations and framework was the work Regina's communities, including many environmental groups, did to insist on equity and consultation from the beginning. It was not just progressive city councillors and consultants who ensured Regina's framework incorporated an equity focus. In fact, since the city passed its original motion in 2018 to become 100 per cent renewable, social movements, researchers, representatives of diverse organizations and members of equity-deserving communities have been working hard to pressure city council and administration on equity. This pressure has taken two forms. First, members of Regina's communities have made presentations at many council meetings since 2018 where the 100 per cent renewable motion and Energy and Sustainability Framework have been discussed and voted on. At these meetings and key votes, diverse delegations promoted equity and demanded rigorous

consultation. Second, these individuals and groups participated vigorously in the consultation processes that formed part of the framework's development.

Consultations for the framework took many forms. City administration formed a community advisory group and relied on it for hands-on input, including to advise on the framework's greenhouse gas targets. According to our interviewees, the city invited (first by email and followed up with phone calls) a wide range of variously positioned stakeholders to join the advisory group, including community groups, service providers, industry representatives, labour organizations, Crown corporations and many more. However, aside from deliberately inviting a large diversity of stakeholders, city administration did not seek to ensure the representation of particular constituencies on the advisory group. The framework lists 27 representatives from youth, industry, Crown corporations, Indigenous organizations and more.

In addition to the advisory group, the city undertook targeted engagement, including six focus groups (with the renewable energy sector, building sector, transportation sector, industrial, manufacturing and agriculture sectors, equity-seeking groups and labour and training groups), a youth forum and interviews. At each focus group, participants were asked how to ensure the Big Moves could be accomplished in an equitable manner. The city also formed an internal advisory group, maintained an online platform that was open to public comment, distributed a survey and, with the help of consultants, ran several online sessions with members of the public to gather input and update the community on the framework's development.

Social movement organizations – including Regina Energy Transition (formed specifically to hold the city accountable for its 2018 100 per cent renewable motion), Regina Citizens Public Transit Coalition, Fridays for Future and EnviroCollective – championed equity-related concerns. These organizations took every opportunity to engage the city on the framework, participating in several consultation processes. Youth and disabled people and their organizations, in particular, drove home the need for better public transit and highlighted the social injustices associated with assuming car-centred travel in the city. Indeed, every city employee interviewed for

this report agreed that improving public transit was the equity concern that came through loudest and clearest in the various consultation processes. City employees also identified benefits flowing to low-income renters as an equity concern particularly reinforced in consultations. The following interviewee made this clear:

So that was the other thing, about access to reliable and affordable transportation as we move forward. The other big thing that was really, really discussed a lot was around people who are renting and people who don't own their homes, and how we can incentivize, or, require or even put laws, bylaws in place to require landlords to make changes to their buildings and things like that.

In our previous report, for which we held focus groups with representatives from organizations that work with equity-deserving people in Regina, these same two equity priorities – accessible public transportation and energy retrofits for renters – were also emphasized (Eaton & Enoch, 2020). A successful youth dialogue hosted by the David Suzuki Foundation in late 2019 brought in several diverse youth perspectives committed to equity. The first report and the youth dialogue seem to have been key factors in the community's focus on equity, renters and public transportation in their organizing.

Lesson 5: A strategic focus on public transportation

The community groups' decision to focus on making public transportation more accessible was a strategic one: it allowed environmentally focused groups to find common ground with youth, disabled people, anti-poverty organizations and more. As interviews with city employees make clear, the message that public transportation is key to equity was heard loud and clear and supported the technical modelling showing significant emissions reductions and co-benefits associated with public and active transportation. Community advocacy helped to ensure that transit became one of the city's "Seven Big Moves." Key community groups continue to pressure the city to bring in fare-free transit for people under 18 years of age with a longer-term view of fare-free transit for all.

In sum, the pressure coming from community groups no doubt played a role in the 2020 motion tasking administration with building a project plan for the

framework that included strong engagement and equity goals. Administration then used the motion to embed equity and engagement into the request for proposals, securing a prominent place for them from the beginning. Clear direction from council and the strong equity and engagement language seem to have shaped the framework considerably. Finally, many community groups took advantage of every engagement opportunity that the city provided and championed public transit in particular and wider attention to axes of social inequality more broadly throughout the process.



Seven Big Moves

In what follows, we look at each of the “Seven Big Moves” outlined in the Energy and Sustainability Framework and identify what other communities have done to successfully implement equity into city-level climate policy that correspond to each. First, some definitions and considerations. While we offer examples of successful equity inclusion from other jurisdictions, it is important to remember that many of these policies were identified and crafted in response to committed and authentic engagement with front-line communities in these cities. As such they should not be viewed as easily transferable or standardizable, but as potential policy ideas that would need to be developed and adjusted to meet the particular needs of Regina and its communities. Cities that have followed through on their equity commitments almost all adhere to a common practice; they seriously engage with equity-deserving groups and encourage their

participation throughout the process, from identification to implementation. Although Regina has demonstrated that community participation can drive *identification* of equity concerns, continued community engagement is the best way to ensure *implementation* of policies that actually address those concerns.

Finally, a key theme we will return to throughout our examples is that much of what is required to achieve a renewable Regina is financially out of reach for some residents. Electric cars, solar panels, heat pumps and home retrofits are all expensive endeavours that many will not be able to even contemplate without assistance. If we want to ensure a renewable Regina that leaves no one behind, it is incumbent upon the city to devise policies that will ensure that energy transition and climate resilience are not exclusively the purview of the affluent.



Big Move 1: Building retrofits

The framework identifies that energy use in buildings accounts for 69 per cent of GHG emissions in Regina (City of Regina, 2022a, 27). This makes retrofits to improve building envelope for greater energy efficiency one of the most important actions the city can undertake to reach net zero. As the framework recognizes, retrofits of new and existing buildings also have a high potential for inequitable outcomes if done incorrectly. They could lead to higher rental costs, displacing low-income communities, and low- to moderate-income homeowners may not be able to afford the upfront costs without assistance. An equitable building retrofit program will acknowledge and address these potentially inequitable outcomes.

The most common way to address the equity concerns of low- and moderate-income homeowners has been through local financing programs such as Property Assessed Clean Energy or utility on-bill financing. These can help mitigate the high upfront costs of home energy-efficiency upgrades by allowing recipients to make payments through their property taxes or utility bills over longer times.¹ For instance, the City of Saskatoon's Home Energy Loan Program provides loans between \$1,000 and \$60,000 for eligible retrofits, which can be repaid over five, 10 or 20 years through property taxes (City of Saskatoon, 2022). However, there are barriers that can prevent low-income households from participating in financing programs. In particular, for households living paycheque to paycheque, debt is often to be avoided, and not considered a "financial tool" to use for long-term needs. Kambo Energy Group observes, "LMI households are less likely to take on debt to address energy efficiency improvements – unless they are critical or immediate needs such as a broken furnace or window" (2022, 10-11). As KEG further notes, low- and moderate-income households that do participate in financing programs are often at greater risk of being late or unable to make payments: "Households that struggle to

make payments will suffer a series of household hardships before defaulting or making late payments. These may include falling behind on other bills, trade-offs of household essentials such as food/childcare/extracurriculars and using financial services like payday loans to try and 'catch-up'" (Ibid, 13). LMI households can also be more susceptible to "cheaper" low-quality contractors that offer poorer quality work and/or sell unnecessary and/or expensive upgrades (Ibid, 13-14). Special care must be taken when designing these financing programs to include robust consumer protections and minimize the financial risk for vulnerable households. Alternatively, Efficiency Nova Scotia's Homewarming program targets qualified low-income homeowners with free energy upgrades like draft-proofing and insulation (Efficiency Nova Scotia, 2022). Such programs may be easier initial sells to low-income homeowners and can help familiarize them with the options for more expansive efficiency upgrades and financing in the future. An independent provincial agency, similar to Efficiency Nova Scotia, tasked with promoting energy efficiency across Saskatchewan would help facilitate municipal retrofit goals.

Addressing the equity concerns of private renters in a retrofit program can be more challenging. Rental homes are already typically less energy-efficient on average than owner-occupied housing, so tenants stand to benefit greatly in terms of reduced energy costs, but only if the costs of retrofits are not passed along by landlords in the form of higher rents (Samarripas & Jarrah, 2021).² Other jurisdictions have tried different policies to encourage retrofits in rental units with an eye to maintaining affordability. Some communities, such as Hartford, Connecticut, have allowed renters to make minor energy efficiency improvements to their homes without landlords' consent. However, tenants would still bear the costs of improvements.³ A more innovative way that municipalities

1 For a critique of PACE and its potential consequences for homeowners and municipalities, see Boucher, 2020.

2 As many commentators note, energy efficiency upgrades in rental housing often contain a "split incentive." If property residents pay their own energy bills, "landlords have little reason to invest in energy efficiency upgrades that will lower their renters' energy use and costs" (Samarripas & Jarrah, 2021, 7).

3 These upgrades are limited to those that do not change the building's structure or equipment and involve alterations that are easily removable or reversible; examples include adding removable weatherstripping and removable interior storm windows, and wrapping insulation around hot-water heating tanks (See Samarripas & Jarrah, 2021, 23).

have sought to encourage rental property retrofits while controlling affordability is through affordability covenants. This is where municipalities provide rental property owners with low-interest loans or grants for retrofits and upgrades in exchange for an agreement to keep rents affordable for those with low incomes for a specific number of years following a project's completion. Minneapolis has adopted a somewhat similar approach, whereby property owners that commit to keeping a certain percentage of their rental units affordable to low-income tenants can receive a long-term property tax reduction and access to energy efficiency financing and other incentives (Ibid., 31).

Regina is also home to a significant number of publicly funded social housing units owned by the Saskatchewan Housing Corporation and administered via the Regina Housing Authority. While these are a provincial responsibility, prioritizing social housing units for energy retrofits and upgrades has been a key component of climate

equity policies in other provinces and the United States. Advocating for a provincial program to address the energy efficiency needs of existing social housing stock is another way the City of Regina could advance equity in this area.

Finally, as the framework notes, a citywide retrofit policy can also be a boon for employment. Cities should ensure that both jobs and training opportunities flowing from these policies are distributed as equitably as possible. For instance, the City of Portland's retrofit program relies on a legally binding Community Workforce Agreement so the program delivers positive workforce development outcomes. The agreement is meant to ensure that retrofitting creates high-quality jobs with career pathways for low-income and minority residents. Participating contractors must meet certain wage, benefit, hiring and training requirements to be eligible (Brandin, Stitely & Hoyt, 2010, 12).



Recommendation: Champion the creation of a provincial energy efficiency agency.



Recommendation: Encourage the province to adopt a social housing retrofit program.



Recommendation: Use climate policy to ensure positive workforce development outcomes.



Big Move 2: Clean heating

The framework observes that most emissions from buildings in Regina come from natural gas used for space and water heating. Switching to more efficient electric systems like heat pumps in new and existing builds is key because grid electricity can be decarbonized with the addition of renewable energy at the individual building or community scale (City of Regina, 2022a, 27). When combined with energy efficiency retrofits, electrification of heating can result in significant cost savings for low-income families that often spend a disproportionate amount of their income on energy. Indoor air quality can also be improved via electrification, particularly in apartments with smaller square footage and poorer ventilation (Wazowicz, 2021). Distinct benefits could accrue to lower-income households via electrification. However, as with a citywide retrofit program, fuel-switching or electrification policies also need to take into account the ability of low-income homeowners and renters to make the transition and what support they may require.

For low- to moderate-income homeowners, electrification upgrades could be financed along the same lines as efficiency upgrades, through PACE or utility on-bill financing, with the same need for consumer protections and risk mitigation that we outlined in the previous section. Electrification is usually a key component of most city's energy efficiency programs, as electrification of heating without sufficient energy efficiency upgrades

would make home heating costs too prohibitive to be worthwhile. Electrification cannot proceed without energy efficiency improvements, so they need to be viewed as interconnected from a policy standpoint.

Once again, the major challenge may be how to encourage electrification for renters, who tend to have lower incomes and often cannot access electrification programs since they do not own their property or their unit's appliances and equipment. As Wazowicz observes, "property owners may not want to go through with the hassle of upgrades if they do not pay the utility bills and, thus, would not experience the financial benefit. This split incentive has complicated the delivery and access of energy efficiency programs and will continue to be a likely barrier for electrification" (2021, 19). Moreover, renters will also be the hardest hit if they wind up being the last customers served by the gas distribution system, because they can least afford the risk of significantly increased bills that will be needed to support aging and stranded infrastructure (Greenlining, 2019, 17). Electrification plans will have to include incentives for property owners to make the transition, which is why many of the energy efficiency retrofit programs targeting rental property owners outlined in the previous section include electrification in the bundle of available options.



Recommendation: Develop a citywide policy that bundles together retrofits, electrification and renewables.



Big Move 3: Net-zero new construction

One of the strengths of Regina’s framework is the sense of urgency that pervades the document. Part of that urgency requires that we don’t sabotage ourselves with new buildings and infrastructure that will continue to emit for the next quarter of a century and have to be retrofitted down the line. New construction must not be a new source of GHG emissions. However, any policy affecting the future of residential building construction must also take into account the acute affordable housing crises in many urban centres, Regina included. An equitable net-zero construction policy must ensure that the stock of new affordable units grows rather than dwindles. The benefits of net-zero housing for low-income groups would be immense. Low-income groups are more likely to live in inefficient housing and spend a disproportionate amount of their incomes on cooling and heating their homes. The Canadian Urban Sustainability Practitioners estimate that 12,145 Regina residents – 15 percent of the city population – experience “energy poverty” of high home energy costs greater than six per cent of their income.¹ New affordable housing units that also reduce tenants’ energy bills would be a win-win.

While many of the policy decisions that drive net-zero construction – such as net-zero building codes – will occur at the federal and provincial levels, some decisions can be made at the municipal-level to ensure new construction is as equitable as possible.² Innovative land-use policy, such as inclusionary zoning, that requires builders to set aside between 10 and 20 per cent of all new developments for affordable units is one measure many municipalities use to increase the stock of new affordable units (Hachard, Eidelman & Riaz, 2022). Inclusionary zoning, in concert with a net-zero building standard, is one way municipalities can ensure that new net-zero construction is not focused exclusively on single occupancy housing. Upzoning – whereby municipalities allow for more units to be built on a parcel of land in lower-density areas – is becoming an increasingly popular way to encourage affordability and sustainability. By upzoning in already established areas of the city, new units can be built close to public transportation and jobs, resulting in shorter travel distances to work and shop, lowering vehicle miles travelled (Budds, 2020). This type of infill development also serves the



An 83-unit affordable housing complex built to net-zero standards planned for Fort Saskatchewan, Alberta.
Credit: Heartland Housing Foundation

1 CUSP’s Energy Poverty and Equity Explorer mapping tool is available here: <https://energypoverty.ca/mappingtool/>
2 New federal building codes aim to have all new buildings constructed to net-zero-energy-ready standards by 2030. Since the codes are federal, provinces will be required to adopt them within approximately two years, but could adopt them sooner (See Logan, 2022).

needs of a wider diversity of residents because it is less car-dependent and not based on the assumption of single-family housing on large lots. While opposition to upzoning in certain neighbourhoods is to be expected, it can also be mitigated by encouraging building that does not dramatically change the neighbourhood's character. Other communities have found success by encouraging "missing middle housing" in these upzoned areas, which includes accessory dwelling units, duplexes, fourplexes, townhomes and bungalow courts. These housing types fall somewhere in the "middle" between single-family homes and mid-rise multi-family buildings. The City of Portland and net-zero developers have explicitly encouraged

net-zero "missing middle housing" in upzoned areas, providing housing options that carry the benefits of multi-unit/multifamily housing but are built on a smaller area, are elder-friendly, foster a sense of community while respecting the current urban form, facilitate transit and are affordable thanks to net-zero energy strategies (Vaughn, 2018).³ Edmonton recently held a "missing middle" design competition, with the winners granted the right to purchase five parcels of city-owned land and build their winning multi-unit design.⁴ The City of Regina should consider similar ways to incentivize net-zero development of "missing middle" housing for infill areas, via express permitting, fee reductions and other incentives.



Recommendation: Develop a pilot project working with net-zero developers to showcase the potential of missing middle housing in a newly upzoned neighbourhood.

3 See this photo essay on the long-term effects of "middle-housing" on a Portland neighbourhood: <https://www.sightline.org/2019/06/21/this-is-what-a-street-looks-like-39-years-after-legalizing-fourplexes/>

4 https://www.edmonton.ca/programs_services/recognition_awards/infill-design-competition



Big Move 4: Renewable energy generation

The framework considers renewable energy generation “one of the most significant low-carbon transition opportunities the community can pursue” (City of Regina, 2022a, 28). In Saskatchewan, the primary program to encourage individual renewable energy generation has been SaskPower’s net metering program. This program encourages individual homeowners to purchase and install solar panels on their homes and sell surplus energy back to the utility (SaskPower, 2021). While the program was met with overwhelming demand – so much so that it was temporarily suspended and its incentives reduced – it primarily benefited individual homeowners who could afford the high upfront costs of solar installation (CTV News, 2020).¹ Low-income households often cannot afford the upfront costs of solar installation, while renters do not own the roofs on which solar would be installed. Moreover, residents in homes with restricted access to sunlight may not feel solar would benefit them, regardless of their desire to switch to cleaner power. The City of Austin, Texas, experienced the same type of disparity in solar uptake, with middle- and high-income homeowners making up the vast majority of residential solar customers. To extend solar to lower-income and renter households, Austin launched its Community Solar program with a 185-kW rooftop installation, enabling customers who rent or have shaded roofs to subscribe to 100 per cent locally generated solar energy, locking in the price for 15 years. The program expanded significantly with the completion of the 2.6-MW La Loma community solar farm in early 2018, in a lower-income neighbourhood that had not seen significant solar development.² The city has been working closely with the neighbouring low-income communities to develop this solar farm and dedicated half the project’s capacity to low-income customers at a discounted rate. It’s the first program

in Texas to extend solar access to low-income customers at an affordable rate, saving participants money from day one of their subscription. The program was awarded first place by the U.S. Conference of Mayors’ Climate Protection Awards (U.S. Conference of Mayors, 2018).

For low- to moderate-income homeowners, the U.S. Department of Energy’s Berkeley Laboratory assessed which policies best advanced solar adoption in low- to moderate-income households. It found three policies led to the increased adoption of rooftop solar in previously underserved communities: LMI-specific financial incentives, photovoltaic leasing and property-assessed clean energy financing. Of these models, only LMI incentives were specifically designed to increase equity. However, all three were successful in shifting the deployment patterns of rooftop solar to low-income areas (O’Shaughnessy, Barbose, Wiser, Forrester & Darghouth, 2020).



Postcard sent to residents inviting them to be the first to sign up to receive electric power through La Loma Community Solar. *Credit: Teresa Parks*



Recommendation: Explore partnership projects with SaskPower to build community solar that prioritizes low-income access in Regina.

- ¹ The former net-metering program offered a subsidy of 20 per cent of the capital costs of the solar panels, up to \$20,000. It also had a one-to-one ratio for any excess energy produced and returned to the grid. Customers used to receive the retail price for any excess power, currently at 14 cents per kWh. Under the current program, there is no longer any subsidy for panels and customers receive a rate of 7.5 cents per kWh (See CTV News, 2020).
- ² In total, 440 homes will be powered by La Loma, including for 220 low-income families that otherwise wouldn’t have been able to access solar (U.S. Conference of Mayors, 2018, 6).



Big Move 5: Low-emissions vehicles

As the framework observes, people in Regina, as in many Canadian cities, rely heavily on individual automobile trips to get around. While public transit options and reduction in private vehicle travel are essential to get Regina to net zero, electric vehicles are an important component in the framework's overall strategy. Yet, as it notes, electric vehicles are not the most equitable form of transportation. Indeed, despite the explosive growth in electric vehicles over the past few years, owners are still mostly male, high-income, highly educated homeowners who have multiple vehicles in their household and have access to charging at home (Hardman, Fleming, Khare & Ramadan, 2021). The high cost of electric vehicles, as well as the lack of a large used-vehicle market, puts EVs out of reach for many moderate- to low-income households. But price is not the only barrier to adoption. As Nathan Lemphers notes, "for the millions of Canadians that live in multi-family dwellings charging an EV may be particularly tricky" (Lemphers, 2021). Residents may face reluctant condo boards or landlords and require permission to charge their vehicles on-site. Lower-income neighbourhoods often exist in "charging deserts" with no public charging infrastructure nearby. All of these reasons may conspire against the decision to purchase an EV. In response, some Canadian municipalities, such as Vancouver, have passed bylaws requiring all parking spots in new multi-family buildings be EV-ready (McEwen, 2021).¹ Other cities, including Chicago and Seattle, have invested in public fast charging stations in underserved communities, recognizing that the existence of charging infrastructure is required to spur demand (Englund, 2021). Other communities are looking to a mobility-hub model whereby public transit, car-sharing, EV charging stations and other active modes of transportation (e-bikes, e-scooters) exist on the same site (Dilks, 2021).

The car-share model is another way to introduce electric vehicles into low-income neighbourhoods. Good2Go in Boston is an EV car-sharing program that offers reduced rates to lower-income users and those receiving public assistance.² Similar programs exist in Denver, Los Angeles and Minneapolis (Blynn, 2021). The City of Seattle has proposed a pilot project in which a local housing authority or community organization owns an electric vehicle that would be shared by residents/community members. Participants would pay a modest fee directly to the organization for use of the vehicle, which would offset the costs of charging, insurance, maintenance and replacement. This model familiarizes residents with EV technology and allows users who may be without a bank account or without a cellphone to access an EV car-share program (Puget Sound Clean Air Agency, 2018).



The BlueLA EV car-share program in Los Angeles places pickup and charging stations in low-income communities. Credit: blinkmobility.com



Recommendation: Partner with a community association to pilot an EV car-share program in a currently underserved neighbourhood.

- ¹ The City of Vancouver and 13 other municipalities, together representing most new development in B.C., have amended their zoning or parking bylaws to require that all residential parking spaces in new developments feature an adjacent wired electrical outlet capable of providing Level 2 (208V or 240V) charging or higher (McEwen, 2021).
- ² <https://evgood2go.org/pricing/>



Big Move 6: Increasing active transportation and transit use

As the framework recognizes, expanding transit service and active transportation modes has great potential to contribute to enhanced equity because equity-deserving groups use public transit and active transportation more than most. In Canada, lower-income groups are much more likely to use public transit, cycling or walking as their primary means to get to work. Black commuters report using transit more than any other racial group (38%), while Indigenous commuters report the highest rate (10%) of walking to work (Hosford & Winters, 2022). Improving transit and active transportation infrastructure to make these modes of transport more efficient, convenient and safe will directly benefit these groups.

In our previous report, we recommended a fare-free transit model be phased in to address equity concerns over transit accessibility (Eaton & Enoch, 2020, 6). As stated above, this was a key focus of community groups that

drove equity concerns during the framework consultation process. In July, city council approved fare-free transit for children under 13 years, with the possibility of expanding it to include high school students and seniors during certain hours (Quon, 2022). Expanding access to fare-free transit is a key component of an equitable transportation plan, and the City of Regina should be commended for its efforts. The next goal should be to expand free fares to those under 18, seniors and other equity-seeking groups.

The city's recent Master Transit Plan also addresses some safety concerns regarding the transit system that community groups raised in our previous report (City of Regina, 2022b, 37-39). The city's adoption of transit and neighbourhood hubs to connect transit services (on-demand, Paratransit) and rider information should also be commended. Using these transit hubs to connect riders to other modes of low-emission



Mobility Hub
Photo credit: CoMoUK

transportation (bike-share schemes, carpools, e-scooters, electric vehicle charging points, bike racks, shared taxi rides and path systems) can help encourage the uptake of these other modes of transport. They can also enhance rider safety. UBC sustainability scholar Saki Aono observes that the success of such hubs often hinges on how safe users feel within them: "Safety should also be considered across all ages and abilities as well, allowing people of different abilities and familiarity with mobility services to travel and use a variety of services easily" (Aono, 2019, 6).

However, while mobility hubs can help foster active transportation, they cannot make up for inadequate walking or cycling infrastructure in the neighbourhoods where they are located. The reality is that despite having some of the highest rates of cycling and walking, low-income and racialized communities often suffer from a dearth of cycling and pedestrian infrastructure. They often have fewer sidewalks, bike lanes, streetlights, marked crosswalks and traffic-calming features than higher-income neighbourhoods. Because of these disparities in infrastructure, they often

experience much higher traffic injuries and fatalities than the general population (Zimmerman, Lieberman, Kramer & Sadle, 2015, 14). Moreover, people of colour are also at higher risk of getting harassed by law enforcement while bicycling than white cyclists. Avoiding the imposition of burdensome or unnecessary laws on cycling could assist in reducing racial profiling of riders of colour (Ibid, 20). Because many low-income and racialized communities lack the infrastructure necessary to make it safe and easy to walk and bicycle in their neighborhoods, guaranteeing resources and funding to low-income communities, Indigenous communities and communities of colour is another strategy for building an equitable active transportation policy. Finally, some cities have developed an "equity atlas" to help them visualize and develop more equitable transportation policy. The atlas overlays a city's transit system and active transportation system with other public goods to help city planners better connect communities with essential services and infrastructure.¹



Recommendation: Continue to expand fare-free transit access to people 18 and younger. Consider options to reduce or eliminate transit fares for other equity-seeking groups in the city.



Recommendation: Develop a City of Regina Equity Atlas to guide an equitable transportation policy.

¹ View Los Angeles Equity Atlas here: <http://reconnectingamerica.org/laequityatlas/index.php>



Big Move 7: Cleaning and re-energizing industry

Regina's industrial sector represents one-third of energy consumption and GHG emissions in the community and is therefore essential to the success of achieving the city's reduction targets. Addressing climate change in Regina in an equitable manner means ensuring that industries have plans to reduce their emissions to near zero while workers in these changing industries don't lose ground. There is no denying that some of the city's largest contributors to emissions, like the Co-op Refinery Complex, also provide good, unionized, highly skilled work that is well compensated. On the surface it would appear that the city has little jurisdiction or role to play in private industry's plans for energy transition, but while it can't make business decisions for industry, it can facilitate dialogue that centres workers' perspectives and promotes equity in transition.

In fact, the concept of just transition originated with the labour movement and typically includes both private and public policies and support for workers whose jobs are affected by environmental regulations and legislation. The International Labour Organization (2015) has developed "Guidelines for a Just Transition towards Environmentally Sustainable Economies and Societies for All" that emphasize tripartite

social dialogues between governments, employers and workers as a foundation for successful and equitable energy transition. While other levels of government have, so far, failed to convene such tripartite dialogues, the City of Regina could play a key role in ensuring that industry has plans to transition that include workers and their organizations and that uphold workers' rights.

Existing transition planning by prominent industries such as the Co-op Refinery Complex have taken place without the involvement of stakeholders, including workers and their communities. The City of Regina should convene social dialogues with employers, workers and other relevant community organizations and invite other levels of governments into the discussion, including Indigenous governments. After all, workers have a right to know the plans and pathways that industries and employers are taking for energy transition. Such dialogues would help hold industry accountable to its workers and the broader community, and contribute positively to equitable outcomes in transition planning.



Recommendation: Convene social dialogues with employers, workers and other relevant community organizations and invite other levels of governments into the discussion, including Indigenous governments.

Funding climate equity

We recognize that implementing equity can be costly. However, inequitable solutions to climate change can be even more so, since policies viewed as unjust and unfair can render the entire rationale for climate action illegitimate. Moreover, we recognize that municipalities are severely constrained in the revenue tools at their disposal, often relying exclusively on property tax increases that can also invite backlash. To this end, we identify some of the more innovative revenue tools other municipalities have sought to fund climate action and equity.

Expansion of stormwater fees

Traditionally, municipalities have levied stormwater fees through utility charges for water hookups. This often excludes a large number of property owners who may contribute to stormwater runoff but do not have a water connection. Many municipalities are introducing expanded stormwater fees for property owners who create stormwater management problems by having large impervious surfaces, such as parking lots (Moro, 2019). With nearly 50 per cent of Regina's downtown core occupied by parking lots, this enhanced fee could create an important financial incentive for property owners to reduce the impervious surfaces on their land, which could help mitigate flooding.

Municipal land transfer tax increase on high-value homes

A "mansion tax" would increase the land transfer tax only on high-value homes above a certain threshold. For example, Toronto has considered implementing different land transfer tax rates for homes valued above \$2 million (City of Toronto, 2021).

Empty homes tax

While such a tax may not have as much purchase in Regina as it does in cities with aggressive real estate speculation, an empty homes or vacancy tax would levy a tax on any Regina-based home left empty for a certain period. In Vancouver, the money raised from this tax is used exclusively to fund affordable housing. There, many homes and units were put back on the market to avoid the tax, and the city raised \$32 million from empty homes in 2021 (Mangione, 2022).

Progressive property tax

A progressive property tax would be one in which the tax rate increases as the value of a property rises – much like income is taxed in Canada. Currently, property taxes are flat, meaning that while rates differ depending on the property-tax class (e.g., residential versus commercial), the same rate applies to all properties within that class (Johal, Alwani, Thirgood and Spiro, 2019, 60).

Motor vehicle registration fee

Although such a fee would have to be negotiated with the provincial government, other municipalities have introduced fees on locally registered motor vehicles to fund transit and transit infrastructure. Certain U.S. cities have implemented excise taxes for registration of heavier vehicles to compensate for their greater wear on city roadways.

Short-term rental fees

While the City of Regina receives an annual licence fee from short-term accommodation rental operators like AirBnB, it does not collect a tax on all rentals. Cities like Toronto and Ottawa have instituted a municipal accommodation tax of four per cent on all short-term rentals. Ottawa raised over \$1.14 million during the year the tax was introduced (Molina, 2018).

Transportation network fees

Another example of generating revenue from digital economic activity is via charges per kilometre travelled on transportation network companies such as Uber and Lyft.

This fee is to ensure that commercial platforms or apps that match drivers and passengers contribute to the cost and maintenance of the public infrastructure, such as roads, that they rely on (Johal, Alwani, Thirgood and Spiro, 2019, 68).

Conclusion

Almost all cities that have followed through on their equity commitments adhere to a common practice; seriously engaging with equity-deserving groups and encouraging their participation throughout the process, from identification to implementation. While Regina has demonstrated that community participation can drive the identification of equity concerns, continued community engagement is the best way to ensure that those concerns are implemented. Therefore, our primary recommendation is that the City strike an equity committee on sustainability composed of people with the lived experience of various forms of marginalization as well as organizations that support these people. It is important that equity-deserving groups provide recommendations and guidance separately from other stakeholders so their voices are not drowned out or weighed against other interests. Such a committee should also be supplemented with a concerted strategy that has city staff attending and engaging equity-deserving groups in their own spaces and communities.

More should be done to ensure authentic representation from people with the lived experience of marginalization is incorporated into the city's climate change planning. Other cities have recognized that they must be proactive in removing barriers to participation. This can mean paying

people for their time, providing childcare and hiring and training community ambassadors to engage with specific communities in their own homes and places of work. The creation of a City of Regina climate office, tasked with coordinating community participation and advancing climate equity through assessment tools, could help drive this process. Alternatively, existing expertise in the Social Inclusion Unit of the Community Wellbeing Branch and the Indigenous relations office might be well-positioned to take a more systematic role as part of energy and sustainability planning in co-ordination with the climate office. Other cities have sought to ensure the diffusion of climate-equity thinking throughout their respective organizations by creating multi-departmental working groups, with staff resources available from each city department used to monitor and report on climate equity targets to a central climate office. Many cities have demonstrated the rewards of pursuing such a strategy, generating increased community buy-in and good will, while fostering citizen engagement with civic government that is often lacking. Most importantly, it is the best strategy to ensure an equitable made-in-Regina climate action plan that leaves no one behind.



Recommendation: Create an equity committee on sustainability composed of people with the lived experience of various forms of marginalization as well as organizations that support these people to guide the implementation of framework policies.



Recommendation: Create a City of Regina climate office that can act as a hub for coordinating the implementation of the Energy and Sustainability Framework, as well as fostering community engagement through equity assessments for framework-related policies.

List of Recommendations



1

Create an equity committee on sustainability composed of people with the lived experience of various forms of marginalization as well as organizations that support these people to guide implementation of Energy and Sustainability Framework policies.



2

Create a City of Regina climate office that can act as a hub for co-ordinating implementation of the Energy and Sustainability Framework, as well as fostering community engagement through equity assessments for framework-related policies.



3

Champion the creation of a provincial energy efficiency agency.



4

Encourage the province to adopt a social housing retrofit program.



5

Use climate policy to ensure positive workforce development outcomes.



6

Develop a citywide policy that bundles together retrofits, electrification and renewables.



7

Develop a pilot project working with net-zero developers to showcase the potential of missing middle housing in a newly upzoned neighbourhood.



8

Explore partnership projects with SaskPower to build community solar that prioritizes low-income access in Regina.



9

Partner with a community association to pilot an EV car-share program in a currently underserved neighbourhood.



10

Continue to expand fare-free transit access to people 18 and younger. Consider options to reduce or eliminate transit fares for other equity-seeking groups in the city.



11

Develop a City of Regina Equity Atlas to guide an equitable transportation policy.



12

Convene social dialogues with employers, workers and other relevant community organizations and invite other levels of governments into the discussion, including Indigenous governments.

References

Jennifer Ackerman (2022). Urban planning expert “disappointed” in council’s added exception to density targets. Regina Leader-Post. July 14. Available at: <https://leaderpost.com/news/local-news/city-hall/regina-city-council-approves-exception-to-density-targets-in-new-neighbourhoods>

Sam Adams (2018). Don’t Overlook Equity Issues in City Climate Action Plans. Bloomberg News. <https://www.bloomberg.com/news/articles/2018-09-12/climate-change-equity-racism-and-city-planning>

Hillary Angelo, Key McFarlane and James Sirigotis (2020). The Challenge of Equity in California’s Municipal Climate Action Plans. Institute for Social Transformation, University of California Santa Cruz. Available at: <https://transform.ucsc.edu/challenge-of-equity/>

Saki Aono (2019). Identifying Best Practices for Mobility Hubs. Prepared for Translink. Available at: https://sustain.ubc.ca/sites/default/files/Sustainability%20Scholars/2018_Sustainability_Scholars/Reports/2018-71%20Identifying%20Best%20Practices%20for%20Mobility%20Hubs_Aono.pdf

Kelly Blynn (2021). Five car sharing programs with an EV and equity twist. GreenBiz. March 9. Available at: <https://www.greenbiz.com/article/five-car-sharing-programs-ev-and-equity-twist>

Martin Boucher (2020). Accelerating the pace of local energy innovation in Saskatchewan. Johnson-Shoyama Centre for the Study of Science and Innovation Policy. May 13. Available at: <https://www.schoolofpublicpolicy.sk.ca/csip/publications/making-waves/accelerating-the-pace-of-local-energy-innovation-in-saskatchewan.php>

Benjamin Brandin, Amy Stitely and Lorlene Hoyt (2010). City Scale Retrofits: Learning from Portland and Oakland. MIT Community Innovators Lab. Available at: https://web.mit.edu/colab/pdf/papers/City_Scale_Retrofits.pdf

Diana Budds (2020). Will upzoning neighborhoods make homes more affordable? Curbed. January 30. Available at: <https://archive.curbed.com/2020/1/30/21115351/upzoning-definition-affordable-housing-gentrification>

City of Regina (2022a). Energy and Sustainability Framework: Energy and Emissions Reduction Action Plan. Available at: <https://www.regina.ca/export/sites/Regina.ca/about-regina/renewable-regina/.galleries/pdfs/Energy-Sustainability-Framework.pdf>

City of Regina (2022b). Regina Master Transit Plan. April. Available at: <https://www.regina.ca/export/sites/Regina.ca/transportation-roads-parking/transit/.galleries/Transit-Route-PDF/Regina-Transit-Master-Plan.pdf>

City of Saskatoon (2022). Home Energy Loan Program Guide. Available at: https://www.saskatoon.ca/sites/default/files/documents/help_program-guide.pdf

City of Toronto (2021). Updated Assessment of Revenue Options. June 21. <https://www.toronto.ca/legdocs/mmis/2021/ex/bgrd/backgroundfile-168696.pdf>

Jessica Conroy and Christina Hoicka (2020). Planning 100% Renewable Energy Urban Cities: Global Status and Solutions. Dahdaleh Institute for Global Health Research, York University. <https://www.yorku.ca/dighr/wp-content/uploads/sites/181/2020/12/Dec-14-2020-Hoicka-Conroy-Report-Resubmission-Planning-100-Renewable-Energy-Urban-Cities.pdf>

CTV News (2020). Regina City Councillor submits FOI for insight into changes to net metering program. CTV News. February 10. Available at: <https://regina.ctvnews.ca/regina-city-councillor-submits-foi-for-insight-into-changes-to-net-metering-program-1.4805401>

Emily Eaton and Simon Enoch (2020). Renewable Regina: Putting Equity into Action. David Suzuki Foundation. <https://david Suzuki.org/science-learning-centre-article/renewable-regina-putting-equity-into-action/>

Joan Fitzgerald (2022). Transitioning from Urban Climate Action to Climate Equity, Journal of the American Planning Association, DOI: 10.1080/01944363.2021.2013301

Tomas Hachard, Gabriel Eidelman and Kinza Riaz (2022). Who Does What: The Municipal Role in Housing Policy. The Municipal Role in Housing. Institute on Municipal Finance and Governance (IMFG). Munk School of Global Affairs & Public Policy. University of Toronto.

Scott Hardman, Kelly L. Fleming, Eesha Khare and Mahmoud M. Ramadan (2021). A perspective on equity in the transition to electric vehicles. MIT Science Policy Review. August 30. Available at: <https://sciencepolicyreview.org/2021/08/equity-transition-electric-vehicles/>

Kate Hosford and Meghan Winters (2022). How the Canadian population gets to work. Mobilizing Justice. February 22. Available at: <https://mobilizingjustice.ca/how-the-canadian-population-gets-to-work/>

International Labour Organization (2015). Guidelines for a Just Transition towards Environmentally Sustainable Economies and Societies for All. Available at: https://www.ilo.org/wcmsp5/groups/public/@ed_emp/@emp_ent/documents/publication/wcms_432859.pdf

Sunil Johal, Kiran Alwani, Jordan Thirgood & Peter Spiro (2019). Rethinking Municipal Finance for the New Economy. Mowat Centre. https://www.peelregion.ca/finance/_media/rethinking-municipal-finance-new-economy.pdf

Kambo Energy Group (2022). Considerations of Equity in an Efficiency Financing Program. March. Available at: <https://support.empowerme.ca/equity-financing/>

Alisa Kane (2019). “How Portland is building equity into its climate planning.” Fast Company. November 21. Available at: <http://fastcompany.com/90434502/how-portland-is-building-equity-into-its-climate-planning>

Nathan Lemphers (2021). Accelerating electric vehicle growth through equity-minded policies. Electric Autonomy. March 18. Available at: <https://electricautonomy.ca/2021/03/18/electric-vehicle-equity-policies/>

Cloe Logan (2022). Canada's new building code is paving a way to net-zero. National Observer. March 30. Available at: <https://www.nationalobserver.com/2022/03/30/news/canadas-new-building-code-paving-way-net-zero>

Kendra Mangione (2022). Vancouver's tripled empty homes tax brings in \$32M, leads to decline in vacant property: mayor. CTV News. April 12. <https://bc.ctvnews.ca/vancouver-s-tripled-empty-homes-tax-brings-in-32m-leads-to-decline-in-vacant-property-mayor-1.5858832>

Brendan McEwen (2021). Making new residential buildings 100 percent EV ready. Electric Autonomy. January 7. Available at: <https://electricautonomy.ca/2021/01/07/ev-readyresidential-buildings/>

Kimberly Molina (2019). Airbnb tax nets Ottawa \$1.1M in 11 months, city says. CBC News. August 8. <https://www.cbc.ca/news/canada/ottawa/ottawa-airbnb-accommodation-tax-revenue-august-june-1.5238697>

Teviah Moro (2019) Stormwater fee system for Hamilton would target big parking lots. Hamilton Spectator. December 9. <https://www.thespec.com/news/hamilton-region/2019/12/09/stormwater-fee-system-for-hamilton-would-target-big-parking-lots.html>

Puget Sound Clean Air Agency (2018). Facilitating Low Income Utilization of Electric Vehicles: A Feasibility Study. Prepared for Washington State Department of Transportation, Innovative Partnerships Office. Available at: <https://wsdot.wa.gov/publications/fulltext/LegReports/17-19/FacilitatingLowIncomeUtilizationOfElectricVehicles.pdf>

Alexander Quon (2022). Regina to eliminate city transit fees for those 13 and under. CBC News. July 14. Available at: <https://www.cbc.ca/news/canada/saskatchewan/regina-free-childrens-transit-1.6520029>

SaskPower (2021). Net Metering Program Guide. November. Available at: <https://www.saskpower.com/-/media/SaskPower/Our-Power-Future/Powering-2030/Guidelines-NetMetering.ashx>

Stefen Samarripas and Alexander Jarrah (2021). A New Lease on Energy: Guidance for Improving Rental Housing Efficiency at the Local Level. Washington, DC: American Council for an Energy-Efficient Economy. <https://www.aceee.org/research-report/u2102>

Eric O'Shaughnessy, Galen L. Barbose, Ryan H. Wiser, Sydney Forrester and Naim R. Darghouth (2020). The impact of policies and business models on income equity in rooftop solar adoption. Berkeley Laboratory. Electricity Markets and Policy. Available at: <https://emp.lbl.gov/publications/impact-policies-and-business-models>

Toronto Environmental Alliance (May 26, 2022). An Equity Review of Calgary Climate Strategy – Pathways to 2050. Available at: https://hdp-ca-prod-app-cgy-engage-files.s3.ca-central-1.amazonaws.com/8516/5427/7876/An_Equity_Review_of_Calgary_Climate_Strategy_-_Final_v2.pdf

U.S. Conference of Mayors (2018). Taking Local Action: Mayors and Climate Protection Best Practices. June. Available at: <http://www.usmayors.org/wp-content/uploads/2018/06/climateawards2018.pdf>

Kelly Vaughn (2018). Why it matters that affordable housing hits the triple bottom line. GreenBiz. May 18. <https://www.greenbiz.com/article/why-it-matters-affordable-housing-hits-triple-bottom-line>

Maddie Wazowicz (2021). Equity Considerations in Minnesota's Electrification Policies. Midwest Energy Efficiency Alliance. <https://www.mwalliance.org/sites/default/files/meea-research/equity-considerations-in-minnesotas-electrification-policies.pdf?current=/taxonomy/term/11>

Sara Zimmerman, Michelle Lieberman, Karen Kramer and Bill Sadle (2015). At the Intersection of Active Transportation and Equity. Safe Routes to School National Partnership. Available at: https://www.saferoutespartnership.org/sites/default/files/resource_files/at-the-intersection-of-active-transportation-and-equity.pdf

