Equitable Funding Mechanisms for Climate Action in Minneapolis

Leveraging Utility Franchise Fees and Pollution Control Annual Registration (PCAR)

Cherylyn Kelley and Julia Eagles, Institute for Market Transformation

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A trusted, non-partisan nonprofit organization, IMT works to ensure that everyone in the U.S. benefits from high-performing buildings in all facets of their lives. We do this by co-creating and deploying public policy and business practices that drive widespread market action toward improving how we collectively build, design, and operate the spaces where people live, work, learn, connect, and play. If we are successful, all buildings, as a standard practice, will improve people’s physical, social, and economic well-being.

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We are playing with fire, pushing Earth systems to the point that...some of them will break down entirely...If that happens, we will have consigned all future generations of human beings to inexorably and irreversibly deteriorating conditions...we should be hyper-cautious. We should spend a lot of money to reduce that risk, to insure against it.

David Roberts, Editor-at-Large, Canary Media

¹ Volts: "Economists have quantified the economic risks of climate 'tipping points.' It's grim: We're likely underestimating the costs of carbon emissions by a quarter, at least."
Executive Summary

How do we ensure Minneapolis communities can withstand the impacts of climate change?

Addressing this fundamental question will require significant collective investment in solutions like community-wide weatherization of our buildings, upgrading and electrifying heating/cooling systems, maximizing local clean energy like solar and storage, among many others. The result will be lower energy bills, cleaner air, and climate resilient communities ready to welcome people fleeing unlivable climate conditions who have already begun arriving for several decades.

This paper recommends sustainable approaches to generate funding for equitable climate action and just transition efforts in Minneapolis at the scale needed to address the problem.

We focus specifically on two mechanisms available to the City of Minneapolis—Pollution Control Annual Registration (PCAR) fees and utility Franchise Fees (FF)—which could collectively raise over $110 million in additional funding for climate action per year. As jurisdictions across the country create urgently needed funding solutions for the climate emergency, the City can go further and implement bold policies that are truly scaled to address the climate crisis’ effects. Included here are recommendations for collection, disbursement, and oversight of funding for climate action in Minneapolis.

It is, of course, not only about the scale of funding but about the way in which we collect and spend such investments. As has been proven again and again, in the climate emergency, marginalized communities facing systemic barriers disproportionately bear the burdens of climate change while contributing least to its causes. In Minneapolis, specifically, the history and current conditions of racist policies, practices, and systems that continue to disproportionately harm communities of color have resulted in some of the worst disparities in the country between white residents and Black, Indigenous, and people of color (BIPOC) across wealth, homeownership, education, health, and incarceration. Climate change exacerbates the vulnerabilities and stressors of these conditions, amplifying hazards like extreme heat, flooding, and disease that disproportionately impact marginalized populations, acting as a threat multiplier.
On the flip side, many climate change mitigation strategies made as collective, public investments—such as systematically weatherizing homes or expanding public transit access—can actually disproportionately benefit those same communities when designed to reach those facing higher energy burdens and disproportionate pollution impacts.

Prioritizing investments in local clean energy, energy efficiency, resilient infrastructure, and affordable transportation for these frontline neighborhoods first helps ensure climate action redresses past harms. The existing utility and state rebates, incentives, and one-time federal funding have numerous participation barriers and trickle out too slowly to frontline communities, and are thus failing to match the urgency of the moment or the local needs.

Cities have an opportunity to lead, and are in a unique position to use their regulatory authority to collect and distribute resources equitably and efficiently.

They can respond quickly to the needs of local communities, and be more targeted in funding collection and distribution. In Minneapolis that could look like:

- Increasing the franchise fees on Minneapolis' two investor-owned energy utilities (CenterPoint Energy and Xcel Energy) to capture the social cost of their carbon emissions, which was calculated by the City as a matter of policy, potentially yielding $6-109 million more per year.

- Expanding PCAR to include greenhouse gas emissions and apply fees based on the Social Cost of Carbon, generating an estimated $0.4-2.6 million annually. This holds those responsible for pollution accountable and incentivizes emissions reductions.

- Combining franchise fee and PCAR increases based on the adopted Minneapolis Social Cost of Carbon could raise more than $112 million in additional funding annually, while closing the gaps in pollution mitigation that each mechanism addresses.

- Phasing in fee increases gradually to allow time to transition. Providing exemptions, discounts, off-ramps, and/or more generous phase-ins based on income, geography, customer class (residential, small business, etc.), low-wealth residents, small businesses, zero-emission customers, and community institutions.

- Prioritizing at least 40% of funds raised for historically disinvested communities, as exemplified by the Minneapolis Green Zones policy. Expanding criteria beyond Green Zones to serve all frontline and historically marginalized residents.

- Establishing community oversight and accountability for fund allocation through a board with environmental justice representation to ensure transparent outcomes. Making clear investment objectives tied to: (a) measurable emissions and co-pollutant reductions and (b) equitable participation rates.

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2 Citywide Social Cost of Carbon Policy (2019-01585)
3 All estimates based on an analysis using the high social cost of carbon value, a phased-in value ($8 per metric ton) and city-chosen value ($50.77 per metric ton) social cost of carbon by 2024.
4 City of Minneapolis Green Zones Resolution Revised
• Using the funds collected through the franchise fees and PCAR to weatherize homes, invest in clean energy, expand workforce training, and take other actions to equitably curtail emissions while lowering energy costs.
• Adopting new regulations alongside the funds to increase funding use and target it to where it is most needed, especially regarding rental housing.⁵

These proposed changes align fees with emissions impacts and harnesses funding to justly transition Minneapolis off fossil fuels. The mechanisms would generate funds to assist local communities to access weatherization and renewables particularly those that have been most economically marginalized, while simultaneously adding a community-wide disincentive to continue producing carbon emissions. Due to methane gas’ higher carbon intensity, its social cost of carbon will significantly surpass that for electricity. With electric grid emissions expected to markedly decrease due to public policy mandates and declining renewable energy costs, customers will be financially supported to electrify appliances, thereby replacing fossil gas use.

Importantly, the locally-generated funds could be used to creatively leverage supplemental state and federal climate dollars that would otherwise be inaccessible for most as many landmark federal/state incentives only cover part of the full cost of upgrades and/or still require property ownership, and/or additional cash/credit, etc.

By adopting this approach, Minneapolis could establish a model for cities nationwide to equitably mobilize resources closer to the scale of the climate emergency.

Addressing climate change and equity simultaneously requires a paradigm shift.

The challenges faced by disinvested communities demand innovative and equitable solutions that can effectively channel resources to those who need them the most. Pollution Control Annual Registration and Franchise Fees, when coupled with the Social Cost of Carbon, offer a path toward transformative change. This paper delves into the intricacies of these mechanisms, and underscores the urgency of leveraging them to fund climate action while simultaneously advancing equity and justice in the city.

⁵ This may include policies such as Tenant Opportunity to Purchase and/or Right of First Refusal, rental energy performance standard (and assisting affordable housing providers with compliance), inclusive utility investment, targeting rental properties based on their property conditions tier, or assigning higher licensing fees to those properties that are underperforming.
Introduction

Climate change demands urgent action, yet solutions must avoid exacerbating historical inequities.

Globally, the U.S. remains the leading contributor to climate change. There is growing research consensus including in the latest IPCC report\(^6\) that climate change is not a lone source of problems but in fact an symptom or outgrowth of colonization that institutionalized relentless land theft, genocide, and resource extraction in the Global South and the Americas in particular.\(^7\) As we witness both more frequent and more devastating consequences locally and globally—heat waves, heavy precipitation and flooding alongside severe drought, northward migration of invasive species and diseases destructive to humans and ecosystems, storms that overwhelm our infrastructure and damage the tree canopy, unhealthy air due to wildfires in neighboring states and Canada, and threats to winter recreation and traditions, among other things—it is clear that our actions, while small, still have an opportunity to contribute to the larger good.

This paper explores potential equitable and effective funding mechanisms available to the City of Minneapolis to combat climate change in light of these complex challenges and urgent timeline grounded in rectifying historical racial and economic disparities.

The City of Minneapolis has signaled a commitment to urgent action on climate change through several measures. In December 2019, the City declared a climate emergency and called for massive scale mobilization to halt, reverse, and address the consequences and causes of climate change.\(^8\) The City also established a Social Cost of Carbon\(^9\)—the “high” value for which is $50.77 per metric ton of carbon in 2024—to guide internal decision-making practices on things like capital improvement projects to account for their societal climate impact, and to factor current and future climate change risks and policies into city operations. Additionally, Minneapolis made a pledge through the 2023 Climate Equity Plan\(^10\) to achieve net-zero greenhouse gas emissions by 2050, consistent with the United Nations Framework Convention on Climate Change’s Race to Zero\(^11\) commitment, to immediately take all necessary steps in line with global efforts toward limiting warming to 1.5°C / 2.7°F.

Through these commitments and targets, Minneapolis has communicated the critical importance of rapidly transitioning to a carbon-neutral future in order to address the climate crisis.

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\(^6\) IPCC Report 2022
\(^7\) How Colonialism Spawned and Continues to Exacerbate the Climate Crisis: How colonial rule radically shifts historical responsibility for climate change
\(^8\) City of Minneapolis Climate Emergency Declaration
\(^9\) The social cost of carbon is a measure, in dollars, of the long-term damage done by a ton of carbon dioxide (CO2) emissions in a given year. This dollar figure also represents the value of damages avoided for a small emission reduction (i.e., the benefit of a CO2 reduction).
\(^10\) 2023 Climate Equity Plan (Revised as Amended – July 12, 2023)
\(^11\) Race to Zero campaign
The City has also taken steps to acknowledge and address historic injustices and racial wealth disparities that have been deepened by climate change. Minneapolis adopted a Strategic and Racial Equity Action Plan in 2019 to embed racial equity principles throughout City operations, including aligning racial equity goals with department plans and budgets. In July 2020, the City Council passed a resolution declaring racism a public health crisis and committing to action to dismantle systemic racism, escalating the City’s sense of urgency and acknowledgement of the depth of the issue. Additionally, the City created a Racial Equity Impact Guide to assess City policies and procedures through a racial justice lens.

Other efforts include a resolution adopting Indigenous Peoples Day to replace Columbus Day in 2014 that recognizes the annexation of Dakota homelands for the building of the city, and acknowledges that Indigenous nations have lived on the land where Minneapolis was settled since time immemorial. While not stated explicitly in the City’s acknowledgement, both the State of Minnesota and the United States Government carried out genocide, ethnic cleansing, and forced removal against the Dakota to acquire land. Despite centuries of colonial theft and violence, Indigenous people are still here, demonstrating innumerable talents and gifts in the midst of continued oppression and colonialism.

Truly turning these commitments on climate and racial equity into impact will require seeing these emergencies as interrelated—not isolated issues. Every dollar spent and policy enacted must be evaluated through those frameworks: Is it just? Is it resilient? It will take sustained effort, resources, accountability, and prioritizing the leadership of Indigenous peoples and communities of color in decision-making.

The City’s 2023 Climate Equity Plan establishes a framework for centering equity and justice in the City’s climate action, recognizing that marginalized communities bear an unjust burden from climate impacts. The plan calls for inclusive community engagement, prioritizing investments and policies to benefit disadvantaged residents, emphasizing accountability and transparency, and building community wealth and ownership. It aims to distribute resources first to communities of color, Indigenous peoples, immigrants and refugees, people with low incomes, and people with disabilities. The plan also acknowledges the City’s history of racist policies and aims to rectify resulting disparities. By embedding these equity principles, Minneapolis seeks climate solutions that heal past harms and empower communities moving forward. Now, it’s important for the City to shift its focus to implementation, converting ambitious climate targets into funded, measurable strategies that equitably curtail emissions at the local level.

Despite these plans and commitments, Minneapolis is not currently on track to meet its ambitious climate goals to drastically reduce greenhouse gas emissions by 2050. To accelerate the transition, the City needs innovative policies and funding mechanisms. The strategies described in this paper—in alignment with existing City priorities—aim to discourage fossil fuel use, support initiatives to curb energy consumption, shift to renewable power, and expand transportation choices, while ensuring that all people share the benefits of these climate protection efforts.

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12 City of Minneapolis Strategic & Racial Equity Action Plan
13 Declaring racism a public health emergency in Minneapolis
14 City of Minneapolis Racial Equity Impact Analysis Guide
15 Minneapolis Renames Columbus Day As Indigenous People’s Day
The Phillips neighborhoods of South Minneapolis exemplify the ways that the impacts of climate change hit disinvested communities the hardest, as this diverse, low-wealth community faces disproportionate pollution burdens. Such communities are exposed to higher health risks and suffer from a lack of investment on the part of people in power to adapt to the changing climate. Phillips is home to a former arsenic pesticide factory Superfund site, bordered by two major highways, and the location for polluting industrial facilities and the Hiawatha light rail maintenance facility. Residents report high rates of asthma, particularly among children, largely traced to unhealthy indoor environments—things like lead and poor indoor air quality—and substandard, inefficient housing.

The area also suffers from economic disinvestment, with lower homeownership rates and property values compared to affluent white neighborhoods. Discriminatory policies and environmental racism are to blame, like zoning that allowed polluting industry next to homes and the construction of high volume roads that intensify the area’s already poor air quality.

Funding raised through these mechanisms could directly support climate and equity solutions for residents in neighborhoods like Phillips—such as home weatherization assistance, clean energy access, transit upgrades, job training, and anti-displacement policies—that reduce emissions and air pollution, while also tangibly benefiting marginalized residents by improving public health and addressing energy burden.

Minneapolis must focus climate investments in neighborhoods like Phillips, no community should suffer poor health from historical environmental racism.
There is effectively no way for policymakers anywhere to do too much, or to go too fast, on decarbonization. The risk of overdoing it is vanishingly small, all but impossible.

David Roberts, Editor-at-Large
Canary Media

Despite the mounting evidence of disparities, funding to address climate change remains insufficient across all scales of government. In a 2023 study, researchers determined that it would cost between $109 million and $136.5 million every year for the next 20 years to weatherize and electrify Minneapolis’ 88,441 residential 1-4 unit homes, not including multifamily or manufactured housing. While the Mayor’s 2024 budget proposal significantly accelerated the City’s investments in weatherization to $4,744,725, the gap between funding available and the estimated $136.5 million/year needed remains vast.

Although weatherization and electrification of residential homes is only one pathway to achieve climate and equity goals, they are critical for reducing greenhouse gas emissions and addressing energy and housing inequities. These interventions will be costly, and time- and labor-intensive to implement. However, we have seen how it’s possible with the ~15,000 properties across more affluent far south/southwest Minneapolis that have already received fully subsidized energy efficiency upgrades (insulation, windows, air conditioners) as part of airplane noise mitigation efforts. This exemplifies that the scale of the problem necessitates a significantly greater commitment of resources. The current City budget for climate initiatives, while a step in the right direction, falls short of what is required to effectively mitigate the impacts of climate change and build resilient communities.

16 Canary Media - ‘Economists must grapple with climate tipping points before it’s too late’
17 Minneapolis 1-4 Unit Residential Weatherization and Electrification Roadmap (2023)
18 Residential Noise Mitigation Map

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Historically, American policies have often perpetuated wealth divides rather than mitigated them—this holds true in the context of climate change. Addressing this issue demands not only increased funding, but also embedding equity throughout the policy, the collection and the disbursement of funding, including through the governance and decision-making process. Any action taken to combat climate change should be structured in a way that does not inadvertently harm disinvested communities further—avoiding policies like the storage of nearly 1,000 tons of highly toxic spent nuclear fuel next to the Prairie Island Indian Community,¹⁹ in the interest of providing “carbon-free” electricity for Xcel Energy customers—and takes a restorative justice approach to rectify past harms and prevent future harms.

Well-intentioned decarbonization incentives often have shortcomings that restrict access for the groups that need support the most, hindering both the flow of information and the benefits of such funding. For instance, utility rebates frequently require upfront payments that low-wealth households cannot afford or may necessitate taking on personal debt. The Inflation Reduction Act’s home weatherization grants sets income thresholds that may disqualify some who still struggle with energy costs, while electric vehicle tax credits need tax liability,²⁰ excluding many in need. Programs request social security numbers, alien registration cards, and other paperwork that immigrants may not have. Such requirements create obstacles, particularly for marginalized communities, in accessing the intended benefits. Policy design must center the lived experiences of frontline communities to ensure climate solutions are truly just.

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¹⁹ Prairie Island Indian Community priorities - Nuclear Neighbor
²⁰ Federal EV tax credits are going to become transferable in January 2024, which will allow them to be converted into direct reductions in the price of an EV. However, there are still access issues beyond cost—such as access to EV charging infrastructure—that need to be addressed for the credits to be equitable.
encouraging and enabling deep participation in the decision-making process, particularly by communities that have been historically excluded from democratic voice and power.

We need financial mechanisms that can provide dedicated and consistent funds for climate change action that build resilience and wealth in communities that have had it systematically extracted. In the context of underfunding, urgent timelines, deeply entrenched racialized inequity, and public incentive apparatuses that often frustrate their purpose, Franchise Fees (FF) and Pollution Control Annual Registration (PCAR) present innovative opportunities for addressing the climate challenge swiftly and in ways that are specific to local context and needs.

Utility Franchise Fees

Franchise fees are collected by cities from utility companies as part of franchise agreements that—in addition to state law—govern the relationship between a local community and a monopoly energy service provider. Franchise agreements are contracts negotiated between a municipality and a utility provider that allow the utility provider to use public property in order to provide service to its customers in the jurisdiction. Cities generally have broad authority in setting reasonable franchise agreements, although the exact extent is regulated through state law. The agreements define a period of service and a franchise fee paid by the utility to the city; the fee is passed from the utility onto customers as a line item on their monthly energy bill; once collected, the money is paid to the City.

Such agreements have been in place since electrification began in the U.S. with the earliest being established in the late 1800’s. Negotiation of franchise agreements provide an opportunity to ensure that the city is fairly compensated for use of public rights-of-way and that the services provided by the utility align with local objectives, such as reducing energy use or promoting energy that protects local health and air quality.

Like in many cities, franchise agreements and their associated fees have been used in Minneapolis for decades; but the City is an innovator in using franchise agreements to advance its climate action goals.

When Minneapolis renegotiated its franchise agreements with investor-owned utilities Xcel Energy (electric provider) and CenterPoint Energy (gas provider) in 2014, they were able to make several notable advances:

- Decoupling the franchise agreement from the fee, enabling the City to have more flexibility in changing the fee as needed including without renegotiation of the broader franchise agreement. The manner of collection of franchise fees is set in the agreement, while the amount of the fee is set by ordinance.
- Shortening the period of service from 20 to 10 years, with the option for a supermajority vote of the the City Council to terminate the agreements after five years, with one year notice if the utilities do not meet the expectations of the Clean Energy Partnership
- A separate agreement creating the Minneapolis Clean Energy Partnership, a collaboration between the City, Xcel Energy, and CenterPoint Energy to help the City of Minneapolis reach its Climate Action Plan and Energy Vision for 2040 objectives. This agreement also established the 15-member citizen advisory committee Energy Vision Advisory Committee (EVAC) which provides community input into the Partnership and is appointed to two year terms.

How the Franchise Fees Currently Work

The franchise fee in Minneapolis is calculated as a percentage of the utility’s annual gross revenue from Minneapolis customers. Other cities charge a flat rate or a per kWh rate. Currently, residential customers are charged 5.25%, commercial and industrial (C&I) customers and all others are charged 6.75% for their electric franchise fee. For gas franchise fees, residential customers are charged 6%, small volume C&I customers are charged 7.75%; and large volume C&I are charged 8.5%.

When customers use more energy, their energy bill will be higher, and the dollar amount represented by those percentages will rise, which means there is a built–in financial incentive to conserve energy. Some large C&I customers purchase wholesale delivered fuels, which are not subject to the franchise fee because they are not purchased from Xcel or CenterPoint; because of this they pay proportionately less for their fuel while polluting more. Up until 2017, 100% of the funds from the franchise fee—between $20-30 million—were directed into the City’s General Fund with no obligation or earmarking for emissions-reduction, equity, or energy related spending.

The City has increased their franchise fee in 2017 and 2023, though the funds raised still will not meet the scale of the problem. At the recommendation of the EVAC in 2017 to allocate increased funds to spend on explicitly equitable climate action, the City raised the franchise fee by 0.5% in 2018, resulting in approximately $2,780,000 of additional funding for climate action programs that year with that commitment to equity.
This additional money funds projects such as the Green Cost Share and the Sustainability Office. A letter from EVAC warned that the City had made multiple allocations in this first set of spending that were not in line with the City’s promise to spend this money equitably. However the vast majority of total funds from the franchise fee is still directed into the City’s General Fund to pay for non-climate-related expenses.

In October 2023, the City Council unanimously approved the amendment of the Minneapolis Code of Ordinances to increase the percentage rates of the electric and gas franchise fees across all classes of customers. The funds raised by this increase will go toward a dedicated fund for equitable climate action work—the Climate Legacy Initiative.

The Climate Legacy Initiative, announced in July 2023 by Mayor Jacob Frey, is a plan to support the city in achieving its Climate Equity Plan goals. The plan proposes to increase the franchise fee to generate an additional $10.2 million annually, resulting in an average $12 cost increase per household per year. The funding would be used to weatherize homes, invest in workforce training, and expanding programs like the Green Cost Share. In October of 2023, the City Council voted unanimously to approve the funding source for the Climate Legacy Initiative. The program will be deployed in 2024.

Among the goals of this change were to more equally raise additional revenue from electricity and gas customers than current collections and create more equality in how the franchise fee impact is felt across all users. The chart and graph below show the franchise fee increases, and how they attempt to make the rates more equal. The increased franchise fees, shown in the tables below, went into effect starting in January 2024.³⁰

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<th>Electricity Customer Type</th>
<th>Customers</th>
<th>Prior</th>
<th>Current</th>
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<tr>
<td>Residential</td>
<td>130,000</td>
<td>5.00%</td>
<td>6.00%</td>
</tr>
<tr>
<td>Small Volume Commercial &amp; Industrial</td>
<td>12,000</td>
<td>5.50%</td>
<td>7.75%</td>
</tr>
<tr>
<td>Large Volume Commercial &amp; Industrial</td>
<td>50</td>
<td>3.50%</td>
<td>8.5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gas Customer Type</th>
<th>Customers</th>
<th>Prior</th>
<th>Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>190,000</td>
<td>5.00%</td>
<td>5.25%</td>
</tr>
<tr>
<td>Small Demand Commercial &amp; Industrial</td>
<td>19,000</td>
<td>5.50%</td>
<td>6.75%</td>
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<tr>
<td>Large Demand Commercial &amp; Industrial</td>
<td>60</td>
<td>3.50%</td>
<td>6.75%</td>
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³⁰ Gas and Electric Franchise Fee Ordinance Presentation: Climate Legacy Initiative – Franchise Fee Increase. PWI Committee Meeting – Oct. 12, 2023.
In the City’s equity analysis of impacts of the franchise fee increase across different populations, see below, they found that wealthier households would end up paying more than the overall average, but that majority BIPOC communities would end up paying the most, based on a history of redlining and historic disinvestment.

Those households tend to be more sensitive to price changes because the homes are less weatherized, resulting in higher energy burdens. Those communities should therefore be prioritized in any weatherization programs funded through the Climate Legacy Initiative so that the benefits (that far outweigh these marginally higher costs) are quickly realized, and exemptions are in place so that these communities potentially never experience the fee at all because they have been opted into the off-ramps before the exemptions end. Additionally, those residents should be equally or disproportionately represented in any governance or oversight.

**Equity Analysis of Impacts of Utility Franchise Fee Increases**

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<tr>
<th>Census Tract</th>
<th>Avg. Household Energy Costs ($/yr)</th>
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<tr>
<td>City-Wide</td>
<td>$2,083</td>
</tr>
<tr>
<td>Non-Green Zone</td>
<td>$2,091</td>
</tr>
<tr>
<td>Green Zone</td>
<td>$2,009</td>
</tr>
<tr>
<td>&gt;$56,000 Median Income</td>
<td>$2,170</td>
</tr>
<tr>
<td>&lt;$56,000 Median Income</td>
<td>$1,946</td>
</tr>
<tr>
<td>&lt;40% BIPOC Residents</td>
<td>$2,084</td>
</tr>
<tr>
<td>&gt;40% BIPOC Residents</td>
<td>$2,081</td>
</tr>
<tr>
<td>&gt;65% BIPOC Residents</td>
<td>$2,274</td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
<td>$1000</td>
</tr>
<tr>
<td></td>
<td>$2000</td>
</tr>
</tbody>
</table>

**Legend**

- Current Total Energy Costs
- Proposed Incremental Increase

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For context, the latest rate increases initiated by Xcel and CenterPoint—which goes to the businesses themselves for infrastructure costs and shareholder profits—have nearly 10x the impact on average residential bills of the franchise fee increase, see below.

### How It Could Work: Applying the Social Cost of Carbon to the Franchise Fee

Utility Franchise Fees offer a tangible way to generate funding for climate solutions. By linking these mechanisms to the Social Cost of Carbon (SCC)—an estimate, in dollars, of the damage done by each additional ton of carbon dioxide equivalent (CO₂e) in a given year currently externalized and unaccounted for—the true harms of carbon emissions can be better understood and mitigated.

It is a tool that enables better understanding of the economic impacts of an emissions-related policy or investment decision. In other words, it puts a dollar amount on damage that would be caused by circumstances like rising sea levels, impacts on human health, and changes in agricultural productivity resulting from the warming atmosphere. The SCC can exemplify both how a decision to increase carbon emissions will cost money as well as reflect how a decision to reduce carbon emissions will avoid future costs. These costs are not automatically reflected in market prices, which makes the SCC a valuable tool in the cost-benefit analyses that policymakers use when evaluating a policy. This connection provides a solid foundation and legal authority for advocating for the regulation of carbon emissions.

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³¹ Carbon dioxide equivalent or CO₂e means the number of metric tons of CO₂ emissions with the same global warming potential as one metric ton of another greenhouse gas, including methane, nitrous oxide and fluorinated gases.
The SCC adopted by the federal government has changed three times since it was first adopted by the Obama administration. In 2023, under the Biden administration, it was set at $51 per ton. The Minneapolis SCC is set at $50.77 for 2024, based on the high end of the range adopted by the Minnesota Public Utilities Commission. However, neither of these numbers reflects the true magnitude of the economic impact of carbon emissions—they are much too low. The EPA just finalized a new estimate of $190/ton for 2020 (and the equivalent for 2024 is $208/ton), nearly four times the current estimate. It would be difficult to invest “too much” into emission-reducing climate policy, the cost of doing too little is too great.

“Our electricity mix continues to get cleaner while ‘natural’ gas cannot be decarbonized,” notes Robin Garwood, artist and former Senior Policy Aide to former Minneapolis Ward 2 Council Member Cam Gordon. “If you base the fee on the social cost of carbon, instead of something arbitrary, this would result in a really substantial amount of money, allowing us to do a substantial amount of work to fight climate change.”

Integrating SCC into funding mechanisms holds several benefits:

- Enables a more accurate assessment of the damages caused by fossil fuel emissions.
- Provides a reliable funding source to mitigate these damages.
- Incentivizes practices that reduce carbon emissions.

The current franchise fee does not reflect the Social Cost of Carbon adopted by the City, and therefore does not reflect the emissions intensity of either utility’s fuel mix sold to residents, governments, and businesses. As it stands, the franchise fee is a somewhat justified, but still arbitrary percentage of the gross revenues that the utilities collect from customers in Minneapolis aimed to address real disruptions caused by utility activities, but that is substantially less than the SCC and the negative impacts caused by burning fossil fuels. Tying the franchise fee to the SCC, based on the carbon intensity of the resource, would incentivize the transition to clean electricity while increasing the funds Minneapolis has to insulate its communities from the impacts of the climate crisis.

The SCC differs for electricity and gas given the higher emissions intensity of gas combustion. As Xcel Energy rapidly transitions its electric supply to carbon-free sources under state policy, as shown in the chart below, emissions per kWh will dramatically fall over the next 15 years. Contrast this with a gas utility like CenterPoint Energy whose business currently solely relies on selling methane gas which cannot shed its high emissions factor. When applying SCC, the use of such fuel would therefore be disincentivized. Customers can save money over time by electrifying space and water heating to replace fossil gas use, reducing their carbon footprints.

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35 Minnesota bill mandating 100% carbon-free electricity by 2040 heads to governor’s desk.
Imposing a carbon price on electricity via franchise fees would require determining fees for customers based on the emissions intensity of their electricity supply, which would pose some operational challenges for the utility in implementation. For standard Xcel Energy electricity from the grid, average emissions factors for the utility's Minnesota electricity mix could calculate the fee. Customers fully subscribed to Xcel’s Renewable Connect program could avoid the fee entirely, as they purchase 100% renewable energy.\(^{37}\) For net metered solar customers, the fee could be prorated based on the portion of on-site solar production versus grid electricity they use. Community solar subscribers could have fees prorated based on the portion of their energy use offset by their subscription. New metering or franchise fee calculation approaches may be needed to implement these nuanced fee calculations across customer classes.

In the case of wholesale gas customers (those that buy fuels directly and not from CenterPoint or Xcel), applying a SCC franchise fee may not be the most impactful way to mitigate emissions and generate climate action funding, though they should be held accountable for their contribution to emissions. Since wholesale gas customers purchase energy commodities directly rather than utility distribution service, they do not pay the utility's rates that apply the franchise fee charges to end-use customers. Therefore applying franchise fees to them would require a different structure outside the utility bills. It loses the tie to utility services enabled through franchise rights.

Overall, the franchise fee structure would incentivize the utility customers alike to maximize zero-carbon electricity like local solar and minimize more carbon-intensive power. However, fees still need careful design to avoid burdening lower-income residents, which we discuss in the Equitable Policy Design Recommendations section. By involving community partners in the decision-making process, these strategies can be shaped to suit the specific needs of each community. This approach is scalable and replicable, allowing communities to adopt, iterate, and expand upon successful models, ultimately creating a network of interconnected solutions.

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\(^{36}\) Minneapolis Clean Energy Partnership 2022 Annual Report

\(^{37}\) It is unclear whether the franchise agreement allows the City to create new customer groupings ("classes") by ordinance, or only to set set fees for the classes that already exist, but could be included in regular franchise agreement negotiations.
The phased-in SCC proposal starts with $4/mt in 2024, designed to generate $10 million in climate funding, and increases to $8/mt in 2025, continuing to increase until it reaches the full social cost of carbon in 2028. The ramp-up period of the phased-in SCC is meant to be a reasonable estimate of a phase-in period that could be modified under other assumptions to fit the City’s policy needs.

A broad exemption of residential customers may be more feasible than an income-based exemption, at least in the near-term, based on the capabilities of utility billing systems and their access to customers’ income information.

But by exempting residential customers from the charge (a calculation estimated by multiplying the composite proportion of residential customers’ usage on electricity and gas in Minneapolis), the total drops to a little less than $103 million. Other scenarios could be applied to the calculation, including more exemptions for customers with low incomes or that are based in certain geographies.

In the scenario on the following page, the funds collected by the City from electricity would gradually decrease from around $44 million in 2024 to around $17 million by 2034. This decline is due to Xcel Energy rapidly transitioning its electric supply to carbon-free sources under state policy mandates. In contrast, the City’s SCC revenues from gas are projected to increase steadily over the same period, exceeding $100 million by 2034. This increase is attributed to the inherent carbon intensity of burning...
Methane via fossil gas, which cannot be significantly reduced without transitioning away from the fuel source altogether. As a result, the SCC fees applied to gas consumption will continue to rise, effectively disincentivizing its use. The phased-in SCC climate funding for both electricity and gas follow similar trajectories as their counterpart City’s SCC funds, but with a more gradual increase in the early years.

**Minneapolis’ Authority Over Utility Franchise Fees**

Minneapolis has the authority to adopt an SCC-based charge through its franchise agreements with CenterPoint and Xcel. Municipal control over franchise fees generally is explicitly permitted by state law, and Minneapolis’s charter likewise permits it to set fees for its franchises. As discussed above, the City’s franchise agreements with CenterPoint and Xcel allow the City to adjust the amount it charges in franchise fees once per year by passing an ordinance, without the need for renegotiating the franchise agreement itself. This could be adjusted to equal the SCC by charging a fee per kilowatt-hour (kWh) of electricity or therm of gas consumed that reflected the accompanying GHG emissions; for electricity, the fee could be adjusted annually as the mix of resources producing that electricity changed. The City’s franchise agreement with Xcel explicitly permits the use of per-kWh fees; the CenterPoint franchise agreement requires CenterPoint’s consent—but not necessarily a renegotiation of the agreement—to change the basis for gas franchise fees.

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Pollution Control Annual Registration

Pollution Control Annual Registration (PCAR) is an impact fee to recover the costs imposed by pollution in Minneapolis and send price signals that disincentivize pollutants. The City of Minneapolis’ Health Department - Sustainability, Healthy Homes, and Environment department is responsible for environmental permitting within the City, one of which being the PCAR established under Ordinance 47.40. Money collected through the fee funds a variety of City functions to mitigate the cost of those emitted pollutants, including the Green Cost Share program, which provides grants to projects that save energy, reduce air pollution, and cut carbon dioxide emissions in the city.

“One of the most unique things about the way our PCAR program is designed is that we charge per ton of emission of criteria pollutants, which is typically something that’s charged at a state level, to account for the potential public health impacts in more dense urban settings. One ton of pollution impacts far more people in a city. It’s an innovative way of addressing urban pollution. Mayor Frey as a Council Member was the one who really championed this approach from a policy level in Minneapolis.”

Patrick Hanlon, Deputy Commissioner of Sustainability, Healthy Homes, and Environment for the City of Minneapolis

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43 Pollution Control Annual Registration, Minneapolis, Minnesota Code of Ordinances.
44 These six pollutants are carbon monoxide, lead, nitrogen oxides, ground-level ozone, particle pollution (often referred to as particulate matter), and sulfur oxides.
How PCAR Currently Works

Business, commercial buildings, and residential buildings with four or more units that generate, or have the potential to generate, regulated types of pollution through equipment or processes are required to register for a license and pay fees related to how much pollution they are expected to produce. Before applying for the permit, the equipment and business processes must be inspected, maintained, and functioning properly; without a permit they cannot be used. Business owners, landlords, and property owners will often pass the cost through to customers, such as through rent or dry cleaning bills. While customers and tenants take on a portion of the cost, they also benefit from the pollution reductions obtained through the PCAR-funded programs like Green Cost Share.
Notably, carbon dioxide emissions and other greenhouse gases are not a type of air emission covered by PCAR and represent a significant opportunity for program expansion.\(^{45}\) Equipment and processes such as space heating equipment powered by fossil gas, dry cleaners using certain chemicals, crematoriums, and kitchen exhaust systems must be registered under PCAR; the city’s ordinance 47.40(b) provides the full list of equipment and items to be registered.\(^{46}\) Fees associated with eligible pollutants vary based on the type of pollutant; the full fee schedule is available online.\(^{47}\)

<table>
<thead>
<tr>
<th>PCAR-Covered Air Emissions</th>
<th>Sources(^{48})</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatile Organic Compounds (VOCs)</td>
<td>Paints, paint strippers, aerosol sprays, pesticides, cleaners and disinfectants</td>
</tr>
<tr>
<td>Particulate Matter (2.5 microns or smaller)</td>
<td>Power plant, industry, and vehicle emissions; smokestacks, fire</td>
</tr>
<tr>
<td>Sulfur Oxides (SOx)</td>
<td>Industrial processes, vehicles and heavy equipment burning fuel with high sulfur content</td>
</tr>
<tr>
<td>Nitrogen Oxides (NOx)</td>
<td>Burning of fuel from vehicles, power plants, gas appliances, and off-road equipment</td>
</tr>
<tr>
<td>Lead (Pb)</td>
<td>Ore and metal processing, certain aircraft using leaded fuel, waste incinerators, utilities, lead-acid battery manufacturers</td>
</tr>
<tr>
<td>Carbon Monoxide (CO)</td>
<td>Vehicles and machinery burning fossil fuels, gas stoves and space heaters, leaking chimneys and furnaces</td>
</tr>
</tbody>
</table>
Perchloroethylene (also known as Tetrachloroethylene and 'perc') is a common dry cleaning solvent that can pose serious health and environmental hazards.\(^4\) Perc is toxic even at very low levels; it can be inhaled, absorbed through the skin, and ingested. The chemical can cause dizziness, headaches, liver and kidney damage through chronic exposure, and those exposed to high amounts can experience central nervous system damage, cancer, or death. Perc causes damage to fish and other aquatic life when it gets into the environment through spills and improper disposal, it can also be released into the air from water and dry cleaned fabrics.

In January 2018, Minneapolis became the first city in the U.S. to fully eliminate the use of perc. Financial assistance from the Green Cost Share program was key to making this cost-prohibitive transition possible, exemplifying the impact incentive programs can make in creating change. The chemical was later legislatively banned from Minnesota in 2021 with the passage of HF 91.

**PCAR Success Story**

**Eliminating Perc Use in Minneapolis Dry-Cleaning**

How it Could Work: Expanding PCAR to Include Greenhouse Gases as Pollutants

PCAR does not currently apply to greenhouse gas emissions (GHG). Doing so and applying a fee to all GHG emitting sources would disincentivize their use while generating funding to support the transition away from fossil fuels through programs such as Green Cost Share. This could be accomplished through the SCC. Expanding PCAR to cover GHG could target major emission sources like power plants, industrial facilities, and transportation fuel suppliers located in the City. This would assess fees proportional to the GHG emissions of things like electricity generation, manufacturing processes, building systems like boilers, and gasoline/diesel sales.

\(^4\) Tetrachloroethylene (PCE) and Drinking Water.
The City would need to weigh tradeoffs in defining the emission sources subject to PCAR. Broad inclusion maximizes emissions coverage, but could have unintended consequences such as cost pass throughs. Targeting only very large emitters may be more feasible to implement initially. For example, Minneapolis could start by applying PCAR to downtown thermal utilities, large manufacturers, and CenterPoint for gas sales. Requiring utilities to pay a PCAR fee that more effectively reflects the environmental impact of their carbon-intense energy generation could lead to faster emissions reductions for these large users.

Initially, small businesses, landlords, and residents would not directly experience PCAR for greenhouse gases. However, fees levied on district energy and utilities could raise costs passed on to end users. Policy design should minimize impact on vulnerable customers through exemptions and gradual phase-in. Overall, PCAR for carbon would incentivize emissions reductions while generating funds for green investments—but careful scope and structure are needed to balance breadth and equity.

This could be a good way of dealing with gas—because most of the emissions are within the boundaries of Minneapolis—but would not make as much sense for electricity—because not all of the pollutants created by the utility (Xcel Energy, in particular) are generated within the City’s jurisdiction and so the fee would not be applicable to those emissions. Applying a PCAR fee to the utility would also introduce the Public Utilities Commission into the conversation—they would determine how the utilities would include the fee in the rates charged to customers, if at all. This would take some decision making power away from City officials, including over how costs impact different groups of customers, which has substantial equity impacts. Instead, using a Utility Franchise Fee that incorporates the Social Cost of Carbon, referenced earlier, may be a better means to to hold utilities accountable for the emissions they produce given the greater control the city could have over the distribution of costs to various types of customers.

The overall program design counters the business argument that this is adding more fees or driving out business, since we’re giving a chunk of funding to help improve the business and employee experience. It takes the wind out of the sails of anyone trying to fight or challenge the program by making it easy to comply. The question is often asked: what route should be taken to be more effective regulatory response or incentive programs? We would argue if you utilize both of the approaches as tools used together, it’s much easier for everyone involved.

Patrick Hanlon, Deputy Commissioner of Sustainability, Healthy Homes, and Environment for the City of Minneapolis
Minneapolis’ Green Cost Share is a popular program funded partially by both PCAR and Franchise Fees, which provides financial assistance for property upgrades that lower energy costs and reduce emissions. The program started in 2012 as the Green Business Cost Share (GBCS) which supported certain businesses in reducing forms of pollution the city regulates (which at the time did not include greenhouse gases). The program expanded significantly and began to include climate-related mitigation after the infusion of funds from the 0.5% increase of the franchise fee in 2017, following which the GBCS took its current title—Green Cost Share—to reflect the broader funding available to residential, commercial, and industrial entities for projects that reduce emissions, lower energy use, and support the transition to clean energy.

Property owners awarded Green Cost Share funding benefit from lower energy costs and more comfortable buildings while the larger community benefits from fewer emissions, pollutants and alleviation of negative pressures on health. As of 2022, the program will align with the Federal Justice40 initiative and a minimum of 40% of funding is provided to environmental justice projects with properties in designated “green zones” qualifying for larger incentives. Green Cost Share supports the goals outlined in the City’s Climate Equity Plan to reduce greenhouse gas emissions 75% by 2030 and generate 100% renewable electricity citywide by 2030. To date, the Green Cost Share has invested nearly $9 million into projects saving 16,074 metric tons of carbon dioxide, or the equivalent of 2,026 homes’ energy use for one year. Demand for funding has consistently exceeded funding available, demonstrating that the program could quickly and effectively be scaled up if additional funds were provided.

50 Minneapolis Green Cost Share program has biggest year yet in 2021
Minneapolis’ Potential PCAR Climate Funding

The chart above shows estimates for how PCAR revenue with the social cost of carbon could stack on current PCAR revenue.\(^{52}\)

Using carbon dioxide-equivalent estimates from the Minnesota Pollution Control Agency’s point source air emissions data for all of Minnesota, we first gathered all non–utility facilities located within Minneapolis’ boundaries—including wholesale gas customers and those large customers that don’t purchase energy commodities from the utility (power plants, district energy, industrial facilities, etc.).

We then multiplied those facilities’ carbon dioxide-equivalent emissions in 2021 by a phased-in ($8 per metric ton) and city-chosen ($50.77 per metric ton) Social Cost of Carbon by the 2024 year, creating estimates of $2.6 million and $4.8 million for total PCAR revenue.

These estimates could be improved by matching MPCA data with current PCAR registration data from the city.

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\(^{52}\) $2.2 million in PCAR revenue is based on the City’s 2023 budget for Annual Air Pollution Operating Permits

Point source air emissions data by MPCA Data Services
The MPCA data used in our analysis may not represent the broadest range of carbon emitters in Minneapolis, and because it relies on self-reported and calculated data, it may also not be as accurate as the City would require. All data shown to the right represents points without “Utilities” or “Other” industry labels.

Importantly, carbon dioxide is not the only potent greenhouse gas emission currently absent from PCAR. Leaked methane from the production and distribution of fossil gas also contributes significantly to climate change, with over 80 times the warming power of carbon dioxide over a 20-year period, see Appendix X. Methane is a highly impactful greenhouse gas that persists in the atmosphere for nearly 12 years on average.

Given methane’s substantial role in near-term warming and Minneapolis’ goals for rapid, deep decarbonization, the City should explore expanding PCAR to incorporate fees on methane emissions at their extremely high global warming potential. This would entail assessing and charging fees based on the amount of fugitive methane leakage that occurs across the gas supply chain serving Minneapolis—from production to end use combustion. Expanding PCAR to encompass carbon dioxide and methane—the primary greenhouse gases—would provide more comprehensive coverage of climate pollutants to help incentivize rapid emissions reductions.

**Minneapolis’ Authority Over PCAR**

As a home-rule city, Minneapolis has the same legislative power as the state when it is acting according to its city charter—which gives it plenary power and is therefore not an obstacle—and on a matter of local concern, such as the regulation of local businesses. As a licensing program, PCAR is an exercise of this power to regulate for the public good, and to collect the fees necessary to do so. Expanding the program to include both fee collection for, and mitigation of, greenhouse-gas emissions would be justified by the same authority.

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53 E.g., Bolen v. Glass, 755 N.W.2d 1, 4-5 (Minn. 2008); Charter of the City of Minneapolis § 1.4(a); see also, e.g., State v. Crabtree Co., 15 N.W.2d 98, 100 (1944) (licensing for cigarette retailers and wholesalers “is a proper target for municipal regulation”).

54 PCAR is sometimes called an “impact fee”, including elsewhere in this paper. In Minnesota law, the term “impact fee” means a fee charged for permission to develop a property, which PCAR is not. Country Joe, Inc. v. City of Eagan, 560 N.W.2d 681, 685 (Minn. 1997). From a legal perspective, PCAR is a license or regulatory fee.

55 See, e.g., Lyons v. Minneapolis, 65 N.W.2d 585, 588 (Minn. 1954) (licensing fees may “cover... the expenses directly or indirectly imposed or incurred”); State v. Labo’s Direct Serv., 44 N.W.2d 823, 826 (Minn. 1950) (one test of license-fee legitimacy is whether “[t]here is [a] relationship...between the amount of the license fee and the amount of regulatory services necessary on the part of the municipality in connection with the business licensed”); Minneapolis St. Ry. v. City of Minneapolis, 40 N.W.2d 355, 359 (Minn. 1949) (“[T]he service for which the city may be reimbursed [by a license fee] must be reasonably related to...inspection, supervision, and regulation.”).
The increase in PCAR fee collection would be justified by increases in the scope of the program. The city collects PCAR fees based on the amount needed to “recoup all associated and indirect costs” of the program, including the cost of mitigating the covered emissions. In other words, PCAR fees charged to industrial facilities emitting air pollutants can fund programs directly related to monitoring, regulating, or reducing emissions because there is a nexus between the fee payer and purpose. Including more pollutants in PCAR would require more regulation, including more mitigation programs, which would be paid for by the additional fees.

Creating a dedicated fund for PCAR fees will also help prevent the money from being used to fund unrelated programs.

Using the SCC as a basis for this fee would likewise be appropriate under Minnesota law. Municipalities have broad latitude in setting the amount of their regulatory charges. As discussed above, this includes authority to impose fees higher than the city’s regulatory costs if doing so would help prevent the creation of a hazard. In addition, the damages model underlying the SCC could be thought of as reflecting the regulatory costs that the city will ultimately pay, such as for natural-disaster recovery. Therefore, basing GHG PCAR fees on the SCC is within the substantial scope of Minneapolis’s discretion in determining its licensing fees.

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56 City of Minneapolis Financial Policies § 3.5; City of Minneapolis, PCAR Legislative Directive Report 3 (Jan. 31, 2024). (“PCAR fees are charged to recover the cost of oversight and management of the PCAR portfolio, inspections of PCAR facilities, and mitigation of pollution.”). This is a self-imposed limitation; the city can charge fees in excess of costs in order to reduce harmful activity. See Lyons, 63 N.W.2d at 588; see also, e.g., Labo’s Direct Serv., 44 N.W.2d at 827 (“[T]here are some kinds of business which might under some circumstances become public nuisances...and which...might be restricted by the imposition of a license fee much in excess of the cost of the license...”).

57 See, e.g., Lyons, 63 N.W.2d at 589.
Policy Design Recommendations

Just and equitable policy measures could be applied during fee collection, disbursement, and through oversight.

Disinvested communities often have higher energy costs and are disproportionately impacted by the effects of climate change. They are more often low-wealth, and Black and Indigenous People of Color (BIPOC). While we cannot solve this issue singlehandedly through climate funding mechanisms, we can avoid further harm through governance that is reflective of environmental justice principles.

Fee Collection

Applying the mechanisms to the appropriate entities based on where emissions originate makes the most sense in the policy design. Distinguishing emissions from fuel supply vs. fuel use argues for separating policies: franchise fees for utility-delivered energy where utilities act as middlemen between customer and emissions; and PCAR for non-utility fossil fuel use tied directly to emitters.

<table>
<thead>
<tr>
<th>Emissions Source</th>
<th>Suggested Funding Mechanism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utility-Provided Energy</td>
<td><strong>Apply Franchise Fees:</strong> For electricity and gas delivered to end-use customers through utilities like Xcel and CenterPoint, it is reasonable to apply franchise fees. This covers emissions from gas or electricity ultimately used/combusted onsite. Even though CenterPoint does not directly combust the gas it sells, charging their customers franchise fees associates emissions with gas sales and creates a funding stream for climate action while discouraging gas use.</td>
</tr>
<tr>
<td>Non-Utility Energy Combustion</td>
<td><strong>Apply PCAR:</strong> For large wholesale energy buyers that combust fuels directly onsite, emissions originate from their facilities rather than a utility. In these cases it makes more sense to apply PCAR emission fees directly to the entity burning fuels. This precisely ties fees to the emissions source without the utility middleman.</td>
</tr>
</tbody>
</table>

This precise targeting maximizes coverage of emissions sources while logically connecting policies to entities based on their role in the supply and use of energy. The utility-focused franchise fee and user-focused PCAR complement each other to comprehensively account for carbon emissions.
Accounting for carbon emissions or applying the full SCC within PCAR or the franchise fee would be a significant cost increase and could potentially disproportionately impact disinvested communities. Analysis shows that approximately 65-70% of costs from any new carbon pollution fees would be borne by businesses, rather than residents. However, data is still needed on whether those business costs impact large corporations more than small, minority-owned businesses within the same customer class. According to the City’s analysis of their 2023 franchise fee increase, majority BIPOC census tracts would be disproportionately affected because the homes there also tend to be less efficient. The equity concerns are critical and should be clearly addressed. At the same time, it should be understood that the vast majority of emissions and resulting fee burdens would come from businesses and middle to high income households. Further study on the distribution of impacts across Minneapolis’ diverse communities can be found in the Energy Cost Equity Analysis conducted on behalf of the City by Elevate Energy.

If Minneapolis raised its utility franchise fee to reflect the current Social Cost of Carbon ($50.77/ton), it could generate an additional $110 million annually for climate investment based on current emissions. While this would increase costs for customers up front, and more so for gas than electricity customers, the climate investments discussed here would save energy and costs longer term. Any significant increase in fees should be phased in over time and allow for flexibility. Flexibility can be provided through exemptions, discounted fees, or pathways to opt-out of paying a fee.

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58 Source data and calculations are referenced in these calculations and described in this overview.
59 Climate Legacy Initiative – Franchise Fee Increase. Oct 12, 2023
60 Energy Equity Cost Analysis, Elevate Energy – August 2023
If we were putting the entire social cost of carbon on the franchise fee for both utilities, it would be a big increase that was very noticeable for a lot of people. We would need to do a ramp-up at the beginning, to avoid hitting people with an enormous bill, and soften the blow by doing retrofits and other projects to reduce energy costs.

Strategies to Mitigate Inequitable Impacts

**Phase-In**
Gradually increase fees over five years to allow time for adjustment. This would smooth increases, but delay climate funding.

**Discount Small Business**
Provide a 25% discount for small businesses to aid transition. May assist main street, but would decrease overall climate funds.

**Business-Only**
Raise fees only for commercial customers, avoiding direct household impacts. Provide targeted business decarbonization incentives to mitigate cost impacts.

**Exempt Low-Wealth Customers and Essential Community Institutions**
Waive or offer discounted fees for low-wealth residents that meet certain criteria – such as eligibility for utility discount rates, free and reduced lunch, or participants in federally administered or self-reported assistance programs – to prevent energy burden increases. Policy exemptions and discounts could also be designed to include certain institutions, such as small business, public schools, senior care facilities, and Essential Community Providers⁶¹ that serve high-risk, special needs, and underserved individuals.⁶²

These examples show how nuanced policy design can tailor fee impacts and tradeoffs. Further modeling could project costs, revenue, and carbon savings under each approach. The fee amount applied through PCAR and franchise fees should match the emissions produced by the business. Industrial businesses such as asphalt plants and foundries are significant emitters of pollutants and should pay more to account for their outsized impact. However, they should also receive incentives to assist with minimizing, or fully transitioning away from processes and materials that pollute.

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⁶¹ Essential Community Providers
⁶² It is not the City’s sole authority to provide exemptions, as it may be limited by the utilities’ current billing software. A broad exemption for residential customers may be more feasible than a low-income exemption in the near-term as the utilities do not have information about customers’ incomes (only those who are on energy assistance programs) and may have limited capabilities to incorporate that into their billing software. A residential exemption could be passed by the City through an ordinance.
Funding Disbursement

Minneapolis already has a good track record of reinvesting funding in historically disinvested communities, exemplified by the Green Cost Share program in which 40% of dollars go to environmental justice and frontline communities. Additional funding should maintain or increase this carveout.

However, while Green Zones are an excellent tool to leverage, they do not capture the full range of impacted residents as not all low-wealth residents reside in Green Zones. Other areas of need could be identified through tools such as the Climate and Economic Justice Screening Tool developed by the Council on Environmental Quality (CEQ). Expanding the definition of disinvested community beyond the Green Zones in Minneapolis will mean that broader impact will be made with the additional funding made available, but clear and measurable targets should be established prior to program launch to ensure progress is achieved. This could take the form of a percentage emissions reduction target, kW of renewables deployed, or number of low-wealth households weatherized. A component of funding should be spent on an education campaign to increase awareness of the availability of funding, making clear who is eligible for what kind of projects, and how to apply for funding.

Here are some ways the funds could be equitably allocated to help reduce costs and exposure:

- Prioritize weatherization and electrification upgrades for low-wealth households, rental properties, and small businesses to lower energy bills and decrease carbon emissions from buildings. Focus first on Green Zones and neighborhoods with older building stock.
- Focus on both funding and new regulatory approaches to support and require landlords to improve the energy performance and health impacts of buildings as a public health essential.
- Fund rooftop and community solar installations (or for solar-incompatible roofs green roofs) to provide energy savings and clean energy access for low-wealth residents, reducing their reliance on carbon-intensive grid power and increasing the resiliency of the local grid to power disruptions.
- Invest in active transit and electric school and transit buses to decrease diesel pollution in environmental justice communities.
- Support minority-owned business incubation and job training programs to build community wealth and ownership of these new opportunities.
- Establish a Community Governance Board to guide equitable allocation of funds based on community priorities.
- Phase in investments for vulnerable communities first before expanding to larger projects to ensure benefits are felt by those impacted most.

The key is to lead with the communities bearing the greatest climate and economic burdens and invest in projects that reduce emissions while tangibly lowering energy bills and overall costs for those residents. Incentives should be allocated not just based on total fees paid, but in proportion to recipients’ vulnerability and transition burden.

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63 Climate and Economic Justice Screening Tool
Here is a hypothetical scenario of how the potential climate funding generated from applying social cost of carbon to the fees could translate into tangible benefits for priority populations. This example channels that $112 million per year ($110 million from increased utility franchise fees with the 2024 SCC and $2.6 million from expanded PCAR with the 2024 SCC, referenced on page 32) specifically into climate justice investments benefitting marginalized communities in Minneapolis.

Potential Annual Investments Targeting Low-Wealth Residents

- **4,130 low-wealth household deep energy retrofits and electrification upgrades** ($15,000/home)
- **5,000 low-wealth household community solar subscriptions** ($3,000/home)
- **Targeted small business energy efficiency upgrades**
- **Expanded targeted transportation options (electric car share, subsidized e-transit)**
- **Workforce development programs focused on women, people of color, those with barriers to employment**

If funds fall short, prioritization of low-wealth weatherization could still assist 6,000–7,000 households under this framework. Metrics like energy burden and emissions per capita could guide proportional allocation. Outreach to priority communities could inform targets. The key is ensuring those hit hardest by climate change and the transition receive robust support.
Oversight

Recognizing that funding to this point has been insufficient to meet the immense need of climate action, the City should be intentional with directing funds to activities that specifically reduce emissions, such as through building weatherization, electrification, and investments in renewable energy. To ensure these end uses, it may be prudent to establish a dedicated fund for climate action. Such a fund should be transparent to the community, making it clear exactly how much funding is coming in from sources such as the franchise fee and PCAR and for what the funds are being used.

Potential downsides without community oversight include:

- Funds may be allocated to projects that don’t align with community priorities. For example, Minneapolis has been criticized for spending climate funds on electric vehicle charging for city vehicles over neighborhood weatherization.\(^{64}\)
- Marginalized communities may be left out of decision-making, as occurred early on with Minneapolis’ franchise fee funds before the EVAC was created.
- Accountability and transparency may be lacking if the community cannot weigh in on and track investments.

Decision-making related to the fund must be transparent and accountable to the community. Centering community voices, needs, and oversight ensures climate investments counter rather than perpetuate environmental injustices. A governance structure could be modeled on the EVAC created by the Clean Energy Partnership. Community Accountability Boards,\(^{65}\) commonly recommended in the design of equitable building decarbonization policies, could serve as an alternative to the EVAC framework, in which policymakers and administrators review a policy’s impact on frontline and fenceline communities. An effective accountability board includes members of the community such as those engaged in environmental justice work, affiliated with community-based organizations, or owners of small and local businesses located in or serving disinvested communities. The group would make recommendations on what projects to fund and ensure equitable distribution of funds.

Some examples of effective oversight models include: Neighborhood Councils representing communities across the city that weigh in on rate cases and utility investment decisions like in Los Angeles with their municipal utility, Department of Water and Power;\(^{66}\) and participatory budgeting in cities like Boston where residents, led by youth in the city, directly decide on a portion of public spending.\(^{67}\) Further exploration of formal oversight models and community engagement strategies is warranted.

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\(^{64}\) Hargarten, E. (2022, September 9). Minneapolis is investing in electric vehicles. But some ask: At whose expense? Sahan Journal.

\(^{65}\) Working with a Community Accountability Board to Co-Design Equitable Building Performance Standards

\(^{66}\) LADWP Neighborhood Councils

\(^{67}\) Youth Lead the Change, Participatory Budgeting Boston
## Current Local Oversight Models

<table>
<thead>
<tr>
<th>Capital Long-Range Improvement Committee (CLIC)</th>
<th>Green Zone Council</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Basics</strong></td>
<td>The City of Minneapolis uses the Green Zone designation—a group of neighborhoods that face high levels of pollution as well as racial, political, and economic marginalization—as a means to target areas of need with mechanisms to reduce pollution and promote economic growth. Two Green Zones are currently established: Northside and Southside.</td>
</tr>
<tr>
<td>A citizens advisory committee that provides community oversight and input on Minneapolis’ capital budgeting process. Plays an important accountability role by centering community voices in capital budget decisions that shape the future of the city.</td>
<td></td>
</tr>
<tr>
<td><strong>Citizen Participation</strong></td>
<td>Green Zones Councils are grassroots community bodies open to all residents in a designated zone. They represent hyperlocal interests.</td>
</tr>
<tr>
<td>CLIC members are appointed by the City Council and the Mayor, with each of the 13 wards nominating two residents to represent their area and the Mayor appointing seven. This ensures geographic diversity.</td>
<td></td>
</tr>
<tr>
<td><strong>Decision Making</strong></td>
<td>Green Zones Councils advocate for resources, develops fundraising plans, and serves as an advisory board to the Mayor and City Council on the respective Green Zone Work Plan. There is less clear accountability because Councils create non-binding plans and wish lists that may or may not be acted on by the City.</td>
</tr>
<tr>
<td>Responsible for reviewing and making recommendations on the city’s Capital Improvement Program (CIP), which funds infrastructure projects ranging from bridge repairs to facility upgrades. Specifically, CLIC evaluates all proposed capital expenditures, holds public hearings to gather community feedback, and makes formal recommendations on the adoption of the CIP to the City Council and Mayor. The proposed budget, which is usually based in large part on the CLIC recommendations is ultimately put to a vote by City Council after a series of public meetings.</td>
<td></td>
</tr>
<tr>
<td><strong>Oversight</strong></td>
<td>City departments have no obligation to implement Green Zones Council ideas. Less community power.</td>
</tr>
<tr>
<td>The CLIC recommendations form the basis of the discussion of the next year’s capital budget, and therefore the vast majority of their recommendations are followed.</td>
<td></td>
</tr>
</tbody>
</table>

The structural differences between these bodies like member appointment vs. open participation impact representativeness, and formal vs. informal advisory status affects influence over resource allocation. Ultimately, through its broad community representation and formal advisory capacity, CLIC provides a better model of participatory governance and oversight that could be applied to a decision-making body around equitable climate investments in Minneapolis.
Portland Clean Energy Community Benefits Fund

The Portland Clean Energy Community Benefits Fund (PCEF) is a grant program that was established after voters approved a ballot measure in 2018 to provide funding for climate action projects that benefit frontline communities. The revenue comes from a 1% surcharge on large retailers in Portland that make over $500,000 in revenue locally and $1 billion nationally. It will provide $44-61 million annually to fund renewable energy, energy efficiency, workforce development, and other climate action projects in Portland, and at least 50% of funds must go to projects that benefit low-wealth residents and communities of color that face disproportionate climate impacts. The initiative was led by Black, Indigenous, and people of color organizations to ensure resources reach those most impacted by climate change.

An oversight committee was established to make funding decisions and ensure accountability and alignment with community priorities. The committee is composed of nine volunteer community members who represent the diversity of the city, with mandated seats for people of color, youth, people with low incomes, and residents from frontline neighborhoods. This helps center community voices and lived experiences in funding decisions. The committee evaluates grant applications, makes recommendations on awards, and provides input on program design and implementation.

There are two designated priority populations identified as targets for PCEF funding:

- For clean energy and related projects, priority goes to people of color and those with low incomes.
- For workforce development, priority goes to women, people of color, those with disabilities, and the underemployed.

The Fund has several accountability measures including collecting grantee outcomes data, tracking program metrics, setting workforce contracting goals, and continuous evaluation. There is extensive community engagement in developing funding criteria and programs. This combination of equity requirements for project locations and an inclusive community oversight committee helps direct funding to where it is needed most. It empowers impacted residents to decide how money is spent in their neighborhoods.

The structure centers community voices and ensures the Fund follows principles of justice, community power, and accountability. The PCEF is a model for providing stable, long-term funding aligned with the City’s climate goals and the scale of investment needed, especially in underserved communities.
Examples from Other Cities

Cities across the country are getting creative with ways to raise money for climate action: pulling from a mix of taxes, fees, and utility shareholder profits. On average, the funds included in this summary chart generate $40–50 per resident annually, making up 1–2% of total city budgets.

**Funds Raised by U.S. Cities for Climate Action**

<table>
<thead>
<tr>
<th>City</th>
<th>Climate Funding/Year/Household</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portland</td>
<td>$196.83</td>
</tr>
<tr>
<td>Boulder</td>
<td>$61.62</td>
</tr>
<tr>
<td>Ann Arbor</td>
<td>$56.73</td>
</tr>
<tr>
<td>Denver</td>
<td>$56.08</td>
</tr>
<tr>
<td>Minneapolis</td>
<td>$30.58</td>
</tr>
<tr>
<td>Chicago</td>
<td>$9.38</td>
</tr>
<tr>
<td>San Diego</td>
<td>$4.92</td>
</tr>
</tbody>
</table>

**Collection Method**

- Sales tax
- Franchise fee, natural gas and electric
- Property tax
- Utility shareholder earnings
- Mix of utility shareholder earnings, tax, and franchise fees on natural gas and electric

**Chicago**

The electric utility—ComEd, short for Commonwealth Edison—was involved in a bribery scandal involving allegations of the company providing jobs and contracts in exchange for favorable legislation, which lead to a settlement where ComEd agreed to pay up to $120 million in shareholder funds to the City of Chicago as part of an Energy and Equity Agreement aimed at supporting community-based climate projects.

**San Diego**

Established a million Climate Equity Fund in 2021, initially funded with $4.8 million from tax and franchise fee allocations, for climate change mitigation and adaptation activities in disadvantaged communities. The fund received an additional $20 million commitment (up to $2 million per year) from shareholder proceeds from San Diego Gas and Electric’s as a result of a renegotiated franchise agreement.

**Ann Arbor**

Residents overwhelmingly approved a ballot measure to increase property taxes for a dedicated climate fund. Altogether the funds raise up to $125 million annually for renewable energy, efficiency upgrades, transit, and more emission cuts locally.

**Denver & Boulder**

Increased utility franchise fees—adding small percentage hikes onto monthly gas and electric bills—as their franchise agreements let the cities boost fees reasonably.

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68 See Appendix B for more detailed comparison.
At least half ensure equity focus in spending and most exempt low-wealth residents from charges. Denver mandates 50% of funds benefit disadvantaged groups. Portland requires half go to low-wealth and minority areas. Chicago prioritizes environmental justice zones. Ann Arbor and Denver exempt non-homeowners or low-wealth participants from charges. Portland omits basic needs like groceries. Most funds have defined governance systems with oversight boards, advisory committees, and transparency requirements ensuring community input guides priorities. For example, Portland’s committee must evaluate engagement and outcomes in marginalized areas. Denver has a 120-member advisory council. Chicago establishes representation across stakeholders. Accountability measures encourage equitable, responsible allocation toward the set goals of each fund.

While funds are generally new, early signs show expanded capacity and programs in each city. Outcomes include weatherized homes, solar subscriptions, e-mobility infrastructure, and more. Scaled up initiatives target carbon neutrality by 2040 or 2050 across the set. Replicating these funding models provides a path for cities to urgently fund climate action centered on justice.

Conclusion

The climate crisis demands urgent and equitable action at a scale far beyond what we have accomplished or envisioned so far.

Cities have a unique opportunity and responsibility to lead, leveraging local policy tools to raise and direct funding in an impactful, just manner. Minneapolis can chart that course by restructuring its Franchise Fees and/or expanding its Pollution Control Annual Registration program to integrate the Social Cost of Carbon.

Using these two policy tools would provide the consistent climate funding stream needed to accomplish the enormous collective project of community-wide weatherization, 100% renewables, job pathways to match the demand for the work, and other priorities outlined in the city’s Climate Equity Plan. It would send a strong market signal to reduce emissions while generating funds to assist the transition. Strategic exemptions and phase-in can shield and build resilience and stability for vulnerable residents and small businesses. Community oversight mechanisms must empower local residents’ voices and priorities, particularly those who have faced institutional marginalization.

The framework presented here offers a roadmap for Minneapolis to equitably raise and allocate tens of millions more dollars annually for climate action. This approach can be customized and replicated in cities nationwide as we urgently mobilize the resources to deliver climate justice. The hour is late, but not too late. Minneapolis has both an opportunity to light the way and a responsibility to act in a way that advances climate justice. Incrementalism for a problem that multiplies every year it is prolonged is both unaffordable and irresponsible; the time for bold action was 40 years ago. The next best time is now.
Greenhouse gases (GHG) and air emissions are closely related but not synonymous. Air pollutants, like particulate matter from diesel engines, are substances in the atmosphere that are harmful to humans and other living organisms; they can cause breathing problems and illnesses when people are exposed to them. Greenhouse gases are gases in the atmosphere that absorb and trap heat, creating a greenhouse-like effect that warms the earth. Many activities that burn fossil fuels or other substances produce both GHG and air emissions. Greenhouse gases like carbon dioxide and methane are generally harmless in the environment until they accumulate too much, at which point the resulting warming effect creates negative circumstances such as rising sea levels and more extreme weather events. While many GHG are naturally occurring, human activities such as burning fossil fuel, cement production, and a variety of industrial and agricultural processes have contributed excessively to GHG in the atmosphere. Unaddressed, excess GHG cause a runaway reaction that increases the risk of drought, flooding, food insecurity, and the spread of disease, all of which are more likely to impact vulnerable populations and disinvested communities. These effects are already in motion and the actions we are taking today are insufficient to reverse, or even slow, the effects of climate change.

<table>
<thead>
<tr>
<th>Gas</th>
<th>Global Warming Potential¹</th>
<th>Lifetime in Atmosphere²</th>
<th>Sources</th>
<th>Global Manmade Emissions³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Dioxide (CO₂)</td>
<td>1 (carbon dioxide is the baseline for comparison using GWP)</td>
<td>5-200 years: CO₂ is part of a complex cycle that can either be absorbed quickly or very slowly</td>
<td>Fossil fuels, tree products, and deforestation</td>
<td>76%</td>
</tr>
<tr>
<td>Methane (CH₄)</td>
<td>27-29.8</td>
<td>11.8 years</td>
<td>Livestock, production and transportation of fossil fuels, anaerobic decay of waste</td>
<td>16%</td>
</tr>
<tr>
<td>Nitrous Oxide (N₂O)</td>
<td>273</td>
<td>109 years</td>
<td>Agricultural and industrial activities, combustion of fossil fuels</td>
<td>6%</td>
</tr>
<tr>
<td>Fluorinated Gases</td>
<td>Varies depending on the chemical – the highest is sulfur hexafluoride at 25,200</td>
<td>A few weeks to thousands of years</td>
<td>Industrial processes, and commercial/ household uses that do not occur naturally</td>
<td>2%</td>
</tr>
</tbody>
</table>

¹ Global Warming Potential (GWP) was developed to enable comparisons between different GHG and their impact on global climate change. It measures how much energy the emissions of 1 ton of a gas will absorb over a given period of time relative to the emissions of 1 ton of carbon dioxide over a period of 100 years. The larger the GWP, the more the gas warms the earth in comparison to carbon dioxide.
² Climate Change Indicators: Greenhouse Gases, EPA.
³ Center for Climate and Energy Solutions, Climate Basics > Energy/Emissions Data - Global Emissions
# United States Cities’ Climate Action Funding Mechanisms

## Portland, OR: Clean Energy Fund

<table>
<thead>
<tr>
<th>Type</th>
<th>Year Enacted</th>
<th>How Passed</th>
<th>City Climate Targets</th>
<th>Who Is Exempt</th>
<th>Who Isn’t Exempt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales tax</td>
<td>2018</td>
<td>Ballot measure</td>
<td>Against 1990 baseline, reduce community-wide carbon emissions 50% or more by 2050, and become net-zero by 2050.</td>
<td>Goods and services from utilities, co-ops, credit unions, as well as sales of qualified groceries, medicine or drugs and health care services.</td>
<td>Consumers of goods and services from large retailers with more than $1 billion and $500,000 in national and local revenue, respectively</td>
</tr>
</tbody>
</table>

### Design

In 2018, Portland voters passed the Clean Energy Community Benefits Fund Initiative. The fund is financed through a 1% surcharge on the Portland sales of large retailers with $1 billion in national revenue and $500,000 in local revenue. While the fund initially expected to raise between $44 - $61 million annually, new projections and plans from the City of Portland have the fund raising more than $100 million per year and investing $750 million over five years starting in 2023.

### How Spent

Starting in 2023, 63% of funds in the coming five years will be used for renewable energy and energy efficiency projects, totaling $474 million. The rest will be used on transportation decarbonization ($128 million), green infrastructure ($70 million), and other categories such as capacity building, regenerative agriculture, and workforce development.

### Governance

The City of Portland’s Bureau of Planning and Sustainability oversees the fund, and a PCEF Committee made of 9 community members (appointed by the mayor and serving staggered 4 year terms) makes recommendations to staff for the program, including oversight on program accountability.

### Equity Focus

Each program concept must contribute benefits to frontline communities, demonstrate community leadership and accountability, and evaluate community engagement through reporting. In addition, the work funds growth of diverse climate action-focused contractors.

### Impact (as of 2023)

As of 2023, the PCEF has already awarded more than $145 million in grants to support communities most impacted by climate change in the city.

<table>
<thead>
<tr>
<th>Average Revenue/Year (Millions)</th>
<th>2023 City Budget (Millions)</th>
<th>Climate Revenue As Percent of City Budget</th>
<th>City Population (2022)</th>
<th>Revenue/Year/Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>$125</td>
<td>$7,100</td>
<td>1.76%</td>
<td>635,067</td>
<td>$196.83</td>
</tr>
</tbody>
</table>

[https://portlandcleanenergyfund.org/about](https://portlandcleanenergyfund.org/about)  
# Boulder, CO: Climate Tax

<table>
<thead>
<tr>
<th>Type</th>
<th>Year Enacted (Updated)</th>
<th>How Passed</th>
<th>City Climate Targets</th>
<th>Who Is Exempt</th>
<th>Who Isn’t Exempt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Franchise fee, natural gas and electric</td>
<td>2006 (2022)</td>
<td>Ballot measure</td>
<td>Against 2018 baseline, reduce community-wide emissions 70% by 2030, become net-zero by 2035, and become carbon-positive by 2040, storing emissions in agriculture and other plantings.</td>
<td>Participants in the Low Income Energy Assistance Program. Additionally, minimal use levels for electricity or natural gas are exempt.</td>
<td>Electricity and natural gas customers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Design</th>
<th>How Spent</th>
<th>Governance</th>
<th>Equity Focus</th>
<th>Impact (as of 2023)</th>
</tr>
</thead>
<tbody>
<tr>
<td>City staff proposed the move to combine and replace the Climate Action Plan Tax and Utility Occupation Tax (both passed in the 2000s) into one fee. Additionally, the Climate Tax gives the city a bonding authority to accelerate future climate and wildfire spending.</td>
<td>$5 million goes to energy efficiency, electrification, resiliency projects, nature-based climate solutions, and administrative costs. $1.5 million goes to wildfire resilience measures</td>
<td>City of Boulder’s Climate Initiatives Department oversees the fund</td>
<td>Residents with low incomes can receive an energy tax rebate. City spending from the program is driven by a mission of equity and racial equity, as explained by the city’s Climate Action Plan.</td>
<td>Past fees have helped the city decrease its emissions 31.8% against its 2005 baseline, and fund numerous decarbonization programs.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Average Revenue/Year (Millions)</th>
<th>2023 City Budget (Millions)</th>
<th>Climate Revenue As Percent of City Budget</th>
<th>City Population (2022)</th>
<th>Revenue/Year/Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>$6.5</td>
<td>$515</td>
<td>1.26%</td>
<td>105,485</td>
<td>$61.62</td>
</tr>
</tbody>
</table>

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https://bouldercolorado.gov/climate-tax-frequently-asked-questions
https://boulder.novusagenda.com/agendapublic/AttachmentViewer.ashx?id=41658&ItemID=3794
### Ann Arbor, MI: Community Climate Action Millage

<table>
<thead>
<tr>
<th>Type</th>
<th>Year Enacted</th>
<th>How Passed</th>
<th>City Climate Targets</th>
<th>Who Is Exempt</th>
<th>Who Isn’t Exempt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property tax</td>
<td>2022</td>
<td>Ballot measure</td>
<td>Carbon neutral community-wide by 2030</td>
<td>Non-homeowners</td>
<td>Property owners</td>
</tr>
</tbody>
</table>

#### Design

Following a city resolution in 2019 to reach carbon neutrality by 2050, the Ann Arbor City Council met in late 2021 to order a 2022 ballot measure on increasing property taxes for climate funding. The ballot measure was passed in 2022 by a 71% majority. The millage was supported because it was one of the few ways that the city could raise money.

#### How Spent

$2 million goes to community clean energy initiatives; $1 million goes to strategies of circular economies, walking and biking infrastructure, and beneficial electrification; and the remainder goes to energy waste reduction, neighborhood resilience, and low-income programs.

#### Governance

Ann Arbor’s Office of Sustainability and Innovations oversees the fund.

#### Equity Focus

According to the resolution ordering the ballot question, the fund is supposed “to advance equity by ensuring that Ann Arbor’s low-income residents and communities of color are centered in the creation and implementation of climate action programs.”

#### Impact (as of 2023)

N/A

<table>
<thead>
<tr>
<th>Average Revenue/Year (Millions)</th>
<th>2023 City Budget (Millions)</th>
<th>Climate Revenue As Percent of City Budget</th>
<th>City Population (2022)</th>
<th>Revenue/Year/Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>$6.8</td>
<td>$525</td>
<td>1.30%</td>
<td>119,875</td>
<td>$56.73</td>
</tr>
</tbody>
</table>

[Links to related documents]

- [A2gov.com](https://www.a2gov.org/departments/sustainability/Pages/2022-Community-Climate-Action-Millage.aspx)

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**APPENDIX B**

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**Denver, CO: Climate Protection Fund**

<table>
<thead>
<tr>
<th>Type</th>
<th>Year Enacted</th>
<th>How Passed</th>
<th>City Climate Targets</th>
<th>Who Is Exempt</th>
<th>Who Isn’t Exempt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales tax</td>
<td>2020</td>
<td>Ballot measure</td>
<td>100% community-wide renewable electricity by 2030, 65% community-wide greenhouse gas reductions by 2030 against 2009 baseline, and 100% greenhouse gas reduction by 2040.</td>
<td>Participants in existing public assistance programs, such as the Low Income Energy Assistance Program. In addition, food, water, fuel, medical supplies, and feminine hygiene are exempt from sales taxes.</td>
<td>Those buying goods in Denver. 70% of sales tax proceeds come from non-Denver persons.</td>
</tr>
</tbody>
</table>

**Design**

Resilient Denver, a grassroots group, led a signature effort to put an energy tax on the 2019 ballot. After discussions with the City of Denver, the initiative was tabled. Denver then created a Climate Action Task Force to explore climate funding mechanisms, landing on a sales tax increase as being less regressive than a tax on energy consumption.

**How Spent**

The annual spending is divided between projects and programs in adaption and resilience, environmental justice, transportation, administration, renewables, workforce, and buildings. Of $137 million committed through the end of 2022, $56 million (41%) addresses buildings, while renewable energy (19%), transportation (13%), and adaptation and resiliency (10%) follow in spending.

**Governance**

The City of Denver’s Office of Climate Action, Sustainability, and Resiliency administers the fund. The Sustainability Advisory Council, made of 120 local advocates, provide advice and recommendations.

**Equity Focus**

The ordinance says that the CPF “should, over the long term, endeavor to invest fifty percent (50%) of the dedicated funds directly in the community with a strong lens toward equity, race and social justice.” $74 million of $137 million so far committed, is marked as “Climate-Equity” focused.

**Impact (as of 2023)**

The CPF has increased the city's climate budget from $4 million to $45 million and increased city climate action capacity from 10 to 40 staff.

<table>
<thead>
<tr>
<th>Average Revenue/Year (Millions)</th>
<th>2023 City Budget (Millions)</th>
<th>Climate Revenue As Percent of City Budget</th>
<th>City Population (2022)</th>
<th>Revenue/Year/Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>$40</td>
<td>$1,660</td>
<td>2.41%</td>
<td>713,252</td>
<td>$56.08</td>
</tr>
</tbody>
</table>

---

https://www.eenews.net/articles/denver-passed-a-sales-tax-for-climate-is-it-working/
https://storymaps.arcgis.com/stories/7a9f1f7fb63a44ef80312eb62aa2368b
https://denver.prelive.opencities.com/Government/Agencies-Departments-Offices/Agencies-Departments-Offices-Directory/Climate-Action-Sustainability-Resiliency/Climate-Protection-Fund

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### Minneapolis, MN: Climate Legacy Initiative

<table>
<thead>
<tr>
<th>Type</th>
<th>Year Enacted (Updated)</th>
<th>How Passed</th>
<th>City Climate Targets</th>
<th>Who Is Exempt</th>
<th>Who Isn’t Exempt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Franchise fee, natural gas and electric</td>
<td>2017 (2023)</td>
<td>Council approval</td>
<td>Against 2006 baseline, reduce greenhouse gas emissions by 2025 by 75%, and become carbon-free by 2050.</td>
<td>The City is considering making the fees less regressive for customers with the lowest usage.</td>
<td>Electricity and natural gas customers</td>
</tr>
</tbody>
</table>

**Design**

Following a consideration of municipalization in the 2000s, Minneapolis increased its franchise fees in 2017 to provide $3 million in mostly climate-related expenses. In 2023, the City Council proposed to increase franchise fees once more to add an additional $8 to $10 million per year for climate action work. In 2023, the city also approved a Climate Equity Plan that aims to the city toward carbon neutrality by 2050.

**How Spent**

The money will be divided between green workforce, renewable energy and efficiency, community engagement, tree planting, biochar, local food and food waste, electric vehicle charging, and administration.

**Governance**

The City's sustainability Office will oversee the fund, with a proposed advisory system made of stakeholders from the Energy Vision Advisory Committee, the Community Environmental Advisory Commission, and the North and South Green Zone bodies.

**Equity Focus**

The Climate Equity Plan directs that there should be dedicated and equitable funding for under-resourced communities and Green Zones, while creating engagement, workforce opportunities, and addressing systemic harms with those communities.

**Impact (as of 2023)**

N/A

<table>
<thead>
<tr>
<th>Average Revenue/Year (Millions)</th>
<th>2023 City Budget (Millions)</th>
<th>Climate Revenue As Percent of City Budget</th>
<th>City Population (2022)</th>
<th>Revenue/Year/Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>$15</td>
<td>$1,660</td>
<td>0.78%</td>
<td>425,096</td>
<td>$30.58</td>
</tr>
</tbody>
</table>

---


[https://www2.minneapolismn.gov/media/content-assets/www2-documents/business/Climate-Legacy-Info-for-Residents.pdf](https://www2.minneapolismn.gov/media/content-assets/www2-documents/business/Climate-Legacy-Info-for-Residents.pdf)
# APPENDIX B

## Chicago, IL: Energy and Equity Agreement

<table>
<thead>
<tr>
<th>Type</th>
<th>Year Enacted</th>
<th>How Passed</th>
<th>City Climate Targets</th>
<th>Who Is Exempt</th>
<th>Who Isn’t Exempt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utility shareholder earnings</td>
<td>Proposed</td>
<td>Council approval</td>
<td>100% renewable energy by 2025 for municipal operations, and 100% renewable energy community-wide by 2035.</td>
<td>N/A</td>
<td>Utility shareholders</td>
</tr>
</tbody>
</table>

### Design

Amid ongoing bribery scandals with ComEd, in 2021, the City of Chicago’s Department of Assets, Information, and Services opened a Request for Information and public commenting period to hear concerns about the future electricity franchise. Public input supported franchise agreement changes, including clearer commitments to support the City’s climate goals. As a result, ComEd (the City’s provider) agreed to an Energy and Equity Agreement alongside the current franchise agreement. The Energy and Equity Agreement delivers up to $120 million in shareholder funds (at a max of $25 million in a year) to the City over four years to support a wide range of community benefit projects.

### How Spent

Funds will be used to support a wide range of community benefits, such as retrofitting, weatherizing, and decarbonizing buildings; community solar projects; bike & other micro-mobility projects; zero-emission transit and fleets; and community health and pollution reduction projects.

### Governance

The funds will be administered by a new third-party nonprofit organization, the Clean Energy & Equity Collaborative. Its board will be appointed by the City (5 members) and ComEd (5 members). There will be an additional Energy & Equity Advisory Panel with 6 to 12 members representing a range of local stakeholders for advice and accountability.

### Equity Focus

Priority is given to projects within environmental justice communities.

### Impact (as of 2023)

N/A

<table>
<thead>
<tr>
<th>Average Revenue/Year (Millions)</th>
<th>2023 City Budget (Millions)</th>
<th>Climate Revenue As Percent of City Budget</th>
<th>City Population (2022)</th>
<th>Revenue/Year/Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>$25</td>
<td>$16,400</td>
<td>0.15%</td>
<td>2,665,039</td>
<td>$9.38</td>
</tr>
</tbody>
</table>

## San Diego, CA: Climate Equity Fund

<table>
<thead>
<tr>
<th>Type</th>
<th>Year Enacted</th>
<th>How Passed</th>
<th>City Climate Targets</th>
<th>Who Is Exempt</th>
<th>Who Isn’t Exempt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mix of utility shareholder earnings, tax, and franchise fees on natural gas and electric</td>
<td>2021</td>
<td>Council approval</td>
<td>Net-zero energy by 2035, community-wide</td>
<td>Unclear</td>
<td>Utility shareholders, electric and natural gas customers, and taxpayers</td>
</tr>
</tbody>
</table>

### Design
In 2021, the City of San Diego’s city council voted to create the Climate Equity Fund. The Fund allows disadvantaged communities in the city to receive funding for climate change mitigation and adaptation activities. Initially funded through $4.8 million of sales and gas tax allocations, along with franchise fee allocations, the fund received a total $20 million dollar commitment (max of $2 million per year) from the shareholder proceeds of San Diego Gas and Electric, as a result of franchise agreement renegotiation.

### How Spent
The fund in 2023 dispersed money to City park improvements, sidewalks, and lighting.

### Governance
The City oversees the fund.

### Equity Focus
Eligibility is based on the City’s climate equity index.

### Impact (as of 2023)
The City approved more than $8 million in disbursements in 2023.

<table>
<thead>
<tr>
<th>Average Revenue/Year (Millions)</th>
<th>2023 City Budget (Millions)</th>
<th>Climate Revenue As Percent of City Budget</th>
<th>City Population (2022)</th>
<th>Revenue/Year/Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>$6.8</td>
<td>$5,120</td>
<td>0.13%</td>
<td>1,381,162</td>
<td>$4.92</td>
</tr>
</tbody>
</table>

[Links](https://www.sandiego.gov/sites/default/files/cd8-newsrelease20210309.pdf)
[Links](https://www.sandiegouniontribune.com/business/energy-green/story/2021-06-08/franchise-vote-number-2)
[Links](https://www.sandiego.gov/sites/default/files/draft_climate_action_implementation_plan_022823.pdf)
[Links](https://docs.sandiego.gov/council_reso_ordinance/rsa2021/R-313454.pdf)
### Salt Lake City, UT: Joint Clean Energy Cooperation Statement

<table>
<thead>
<tr>
<th>Type</th>
<th>Year Enacted</th>
<th>How Passed</th>
<th>City Climate Targets</th>
<th>Who Is Exempt</th>
<th>Who Isn’t Exempt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooperation agreement</td>
<td>2016</td>
<td>Council approval</td>
<td>100% renewable energy supply community-wide by 2030, 80% reduction in greenhouse gas emissions by 2040 against 2009 baseline</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Design**

The City of Salt Lake City saw a disconnect between its emission reduction goals and its electric utility - Rocky Mountain Power's - resource plans. After analyzing alternatives, the City worked with RMP on a shorter franchise agreement with goals for renewable energy and cooperation of new energy programs.

**How Spent**

<table>
<thead>
<tr>
<th>Governance</th>
<th>Equity Focus</th>
<th>Impact (as of 2023)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>Undefined</td>
<td>Rocky Mountain Power helped support state legislation for community solar programs to support the City’s goals, and continues to procure green energy and develop new clean energy programs in conjunction with the City.</td>
</tr>
</tbody>
</table>

**Average Revenue/Year (Millions)**

<table>
<thead>
<tr>
<th>2023 City Budget (Millions)</th>
<th>Climate Revenue As Percent of City Budget</th>
<th>City Population (2022)</th>
<th>Revenue/Year/Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0</td>
<td>0%</td>
<td>204,657</td>
<td>$0.00</td>
</tr>
</tbody>
</table>


[osti.gov/servlets/purl/1760669](https://osti.gov/servlets/purl/1760669)

[slc.gov/sustainability/climate-positive/](https://slc.gov/sustainability/climate-positive/)
Read the online copy, access the companion fact sheet, and learn more about Institute for Market Transformation’s work on Utilities & The Grid.