

A wide-angle photograph of the Denver skyline, featuring various skyscrapers and buildings. In the foreground, there is a lush green park with a winding path and a body of water. The sky is blue with scattered white clouds. The image is framed with rounded corners and has a green decorative element in the top right corner.

OFFICE OF CLIMATE ACTION, SUSTAINABILITY AND RESILIENCY

CLIMATE PROTECTION FUND FIVE-YEAR PLAN



DENVER
CLIMATE ACTION,
SUSTAINABILITY &
RESILIENCY



CLIMATE
PROTECTION FUND



MAYOR MICHAEL B. HANCOCK

City and County of Denver

I'm pleased to present to the people of the City and County of Denver our investment strategy for the dollars you've entrusted to us through the Climate Protection Fund. Through this investment strategy, we can all look forward to a clean, resilient future for everyone in Denver.

It's crucial that Denver has a plan for investing this \$40 million each year in projects and programs that will mitigate the impacts of climate change, adapt to these changes and build resiliency. It's equally important that this work is centered in equity. We know the people most harmed by climate change must be the first beneficiaries of public policies and programs supported with this fund. Guided by equity, the Climate Protection Fund will endeavor to invest at least 50% of the funds in our most vulnerable communities. Denver's communities of color and Indigenous peoples, under-resourced communities and families with low incomes, people living with chronic health conditions, and our children and older adults will see the benefits of this special fund personally, and quickly.

This investment plan was developed with the input of hundreds of stakeholders throughout the past year, and hundreds more who contributed to earlier policy planning efforts, including our 100% Renewable Electricity Plan, the Electric Vehicle Action Plan, the Net Zero Implementation Plan, the Energize Denver Task Force and the 2020 Climate Action Task Force.

The recommendations and expectations of the Climate Action Task Force have been heard loud and clear. This diverse group of residents with lived experience, and professionals with technical expertise, urged Denver to eliminate greenhouse gas emissions by 2040, and this plan formally adopts that goal. This is the only goal there can be if we want to protect our communities and our residents from the dramatic impacts of climate change. In this plan we also set a science-based target of 65% for emissions reductions by 2030.

I thank the people of Denver for placing their trust in our Office of Climate Action, Sustainability, and Resiliency to steward these dollars and invest them in projects and programs that will reduce our collective climate risks and improve the quality of life for our residents most burdened by the impacts of climate change. Together, we will account for our contribution to this global crisis, and at the end of this first five-year period, look back with pride at the accomplishments achieved that we launched today.

A handwritten signature in black ink, appearing to read 'M. Hancock', with a long horizontal line extending to the right.



GRACE RINK
CHIEF CLIMATE OFFICER

Office of Climate Action, Sustainability
and Resiliency

On the date of this plan's publication, leaders of nations around the world are gathered in Glasgow, Scotland for COP26, the United Nations' climate conference. The pledges and follow-through on the global stage are critical for addressing the climate crisis, but the people of Denver know that action cannot wait. Our team is strengthened by the strategy outlined in the Climate Protection Fund's Five-Year Plan, and we are confident that it will be successful.

Denver is only the second city in the United States to have a taxpayer-supported fund dedicated to climate action. The 0.25% sales tax creating this fund was overwhelmingly approved by our voters on November 3, 2020. In just one year, we convened with our stakeholders and mined our previous policy efforts to ensure this plan is reflective of the city's needs and values and positioned to truly make progress in our fight to keep global temperature rise below 1.5 Celsius.

Tremendous thanks are due to our community stakeholders, who volunteered their time, talent, lived experience and professional expertise to ensure that this plan is centered on equity and grounded in science and facts. I especially thank our Sustainability Advisory Council and its six standing committees; these 120 volunteers met more than 40 times in 2021 to deliberate the priorities for the Climate Protection Fund, and their input has been invaluable.

In just the past seven months, the Climate Protection Fund has made over \$7 million in commitments to decisive climate action projects, from providing 70 electric bikes to essential workers, to funding six different organizations that provide training for jobs in the green economy. The fund is poised to more than triple that early commitment in 2022, and the revenue and expenditures will only continue to grow in the coming years.

The Office of Climate Action, Sustainability, and Resiliency is fully committed to advancing Denver's equity goals through our work. If the people most harmed by climate change impacts are not the direct beneficiaries of the policies and programs that we develop, then we are not doing our job well. This plan will serve as a road map for where we need to go and a touchstone for us to ensure we have not deviated from the charge given to us by the people.

This is a crucial moment for humanity, and our team is both motivated and humbled by the responsibility and the trust placed in our hands by our fellow Denverites. Thank you for joining us on this journey. We have so much to accomplish, and together with your support we will succeed.

Grace Rink



Executive Summary

OVERVIEW

On November 3, 2020, Denver voters overwhelmingly approved Ballot Measure 2A, the Climate Protection Fund, to raise approximately \$40 million per year dedicated to climate action. As stated in the ballot measure, the intent of this fund is to:

“Fund programs to eliminate greenhouse gas emissions and air pollution, and adapt to climate change. Funding should maximize investments in communities of color, under-resourced communities and communities most vulnerable to climate change.”

The Climate Protection Fund was referred to the ballot by City Council on the recommendation of the Climate Action Task Force, which urged Denver to eliminate 100% of greenhouse gas emissions (GHG) by 2040. This plan formally establishes that as Denver’s goal, and also sets a science-based target of a 65% reduction in emissions by 2030 from a 2019 baseline. This new target represents Denver’s fair share of carbon reductions necessary to meet the Paris Agreement commitment of keeping warming to 1.5 degrees Celsius.

Denver will race to zero emissions by 2040.



ALLOWABLE USES

The ordinance¹ governing the Climate Protection Fund (CPF) charged the Office of Climate Action, Sustainability and Resiliency (CASR) with its management. CASR will utilize the funds in six allowable use categories as required by ordinance:

- Job creation through local workforce training and new careers for under-resourced individuals in clean energy technology and management of natural resources
- Increased investments in solar power, battery storage and other renewable energy technology
- Neighborhood-based environmental and climate justice programs
- Adaptation and resiliency programs that help vulnerable communities prepare for a changing climate
- Programs and services that provide affordable, clean, safe and reliable transportation choices, like walking, biking, transit, electric vehicles and neighborhood-scale transit
- Upgrades to the energy efficiency of homes, offices and industry to reduce their carbon footprint, utility bills and indoor air pollution

EQUITY

Equally important to *what* the CPF does is *how*. The ordinance creating the fund states that it:

“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.”

CASR interprets this statement to mean that at least half of the funding issued through the CPF should go toward projects that directly benefit people of color and Indigenous people, low-income households, people living with chronic health conditions, children, older adults and others most impacted by climate change.



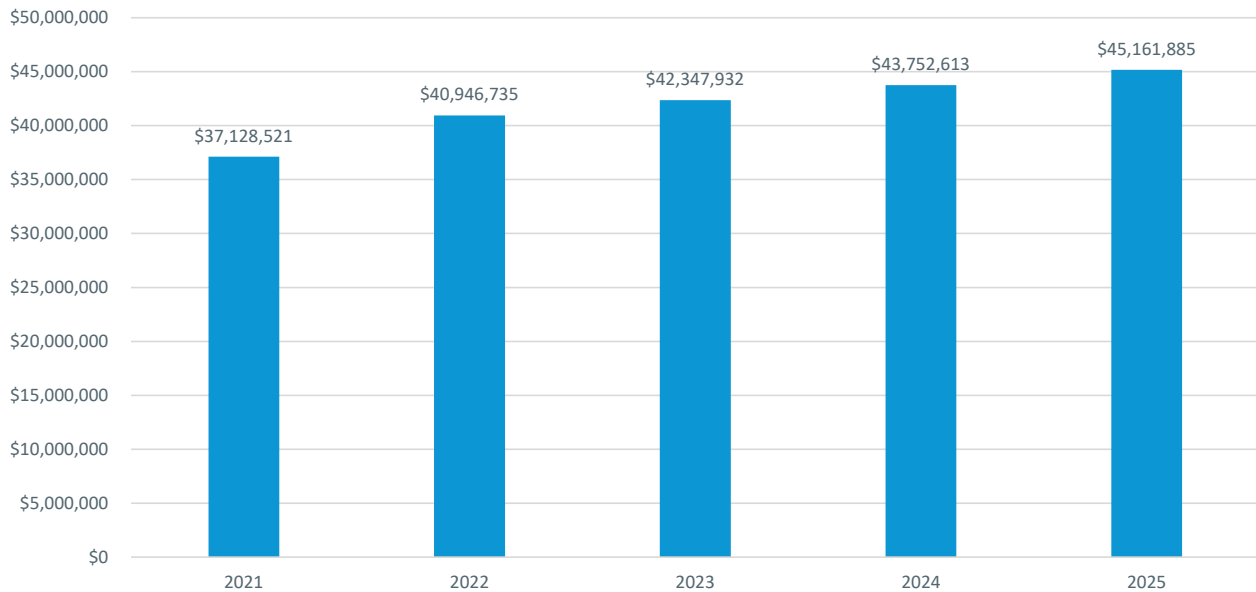
¹ Council Bill 20-0684: <https://denver.legistar.com/LegislationDetail.aspx?ID=4588742&GUID=AB4AD959-CB5E-4ABA-9861-DB2C864AAACE2>

REVENUE

The 0.25% sales tax for the CPF is projected to generate approximately \$40 million to the fund annually (acknowledging it is subject to fluctuations in economic activity). As a non-lapsing special revenue fund, the fund balance accrues and remains available for spending on allowable uses. The revenue projections are produced by the Denver Department of Finance.

Figure 1: 2021-2025 Climate Protection Fund Projected Revenue

CPF Revenue Projection



EXPENDITURES

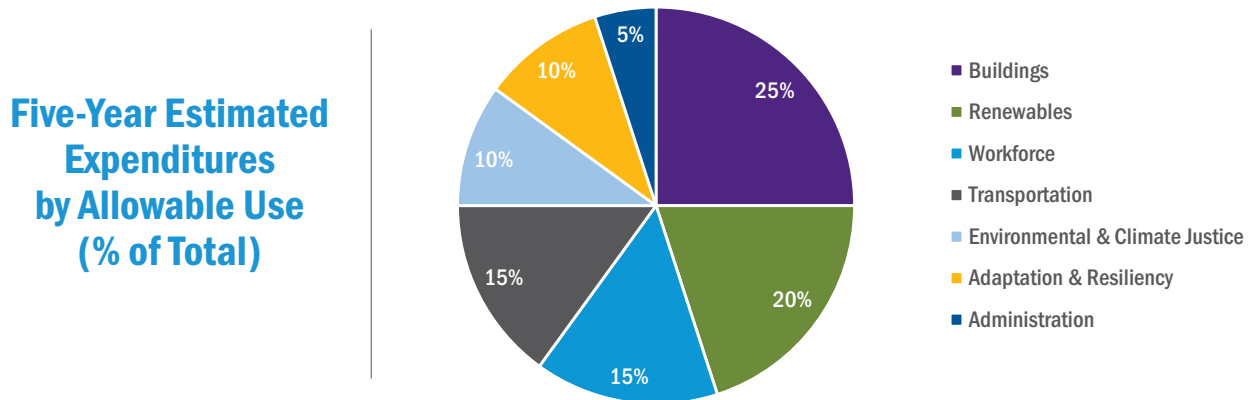
The ordinance¹ that created the CPF allows for “the flexibility to take advantage of one-time opportunities and catalytic projects.” Particularly in early years, large-scale projects that can achieve a high level of GHG emissions reductions may be prioritized to increase the impact of the fund over time. Capital projects can be deployed quickly while CASR simultaneously directs CPF funds into capacity-building investments across the community and within the agency to deliver new, innovative programs. In the early years of the fund, more emphasis will be placed on mitigation because it is critical to reduce emissions now rather than further delaying emissions reductions into the future.

CASR has numerous plans identifying the infrastructure needs to achieve GHG emissions reductions, such as renewable power and energy storage, energy upgrades to existing buildings, and increasing access to electric vehicles and charging stations. What CASR does not have are plans or goals specific to engaging communities in this work, and empowering neighborhood-scale transformations that will result in a more resilient city.

Much of the work under the CPF needs to be co-imagined with the communities that have experienced and continue to experience the greatest inequities and injustices with regard to environmental quality, and that are the most exposed to the negative consequences of climate change. An updated vulnerability assessment will be conducted in 2022 to examine the environmental, social and economic vulnerabilities in Denver as a result of climate impacts. Strategies will be developed to address those vulnerabilities in partnership with communities. CASR will also collaborate with local communities to ensure that its investments are truly increasing access to policy making and improving protections and outcomes for people in environmental justice communities.

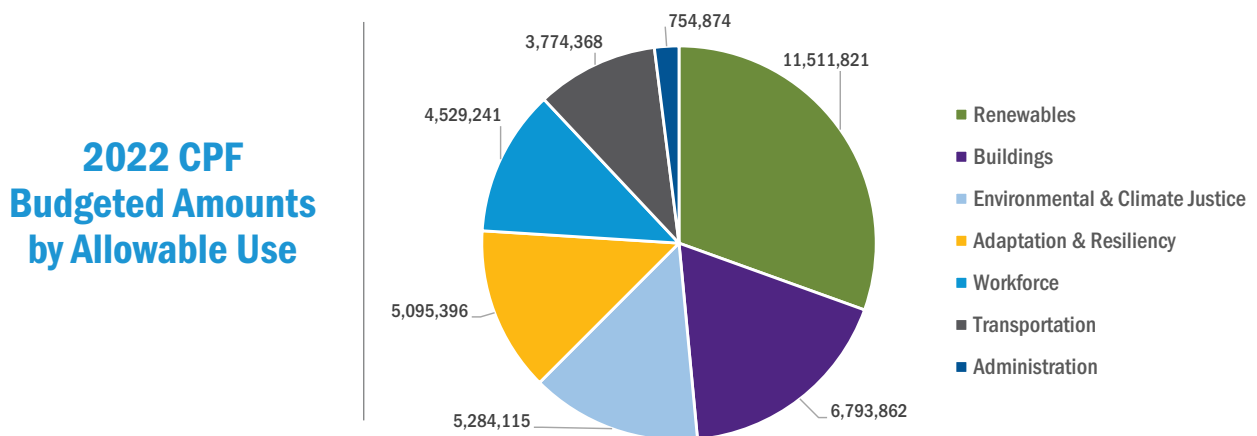
CASR anticipates that over the five-year period from 2021 through 2025, the CPF will be allocated as shown in Figure 2.

Figure 2: 2021-2025 Climate Protection Fund Estimated Expenditures per Allowable Use



As presented in the city's budget book, CASR expects the CPF dollars in 2022 to be allocated as shown in Figure 3.

Figure 3: 2022 Climate Protection Fund Estimated Allocation per Allowable Use



STAKEHOLDER ENGAGEMENT

The ordinance creating the CPF allowed for one year from passage for CASR to develop this five-year plan. In that short time, this plan has been informed and supported by numerous community engagement opportunities. Discussions with external stakeholders began in earnest almost immediately after the ballot initiative passed and will continue as the implementation evolves.

CASR's most intensive and consistent dialogue in the development of this plan was with the Sustainability Advisory Council (SAC) and its six standing committees. Inspired by the 2020 Climate Action Task Force, the SAC includes 120 representatives of community-based organizations; advocates for the environment, active transportation, and social justice; professional engineers and scientists; energy experts, building owners and managers; and residents from every Council district. Between April and October 2021, over 40 meetings were held prior to the final draft of this plan. Denver's adoption of the new science-based target for greenhouse gas emissions was prompted by an endorsement vote by the SAC.

The plan has also been informed by numerous CASR-led and citywide planning efforts over the past several years, including the [Energize Denver Task Force](#), the [100% Renewable Electricity Action Plan](#), the [Electric Vehicle Action Plan](#), the recommendations of the [Climate Action Task Force](#) and more.



“...broad, frequent, and impactful education about new solutions must go hand-in-hand with implementation.”

— Participant in the Climate Action Task Force public engagement process

Community engagement is critical to our ability to deliver benefits equitably across the city. We recognize that successful engagement is directly tied to the quality of our relationships with the community, the trust we earn and our demonstrated commitment to delivering meaningful and tangible benefits. We also recognize that the relationship between government and community has too often and for too long been strained; we commit to shifting to a new paradigm where the community is and feels valued as central to our work. As we grow in this work, we welcome honest, candid and productive feedback on how we can improve.

ACCOUNTABILITY, TRANSPARENCY, AND REPORTING

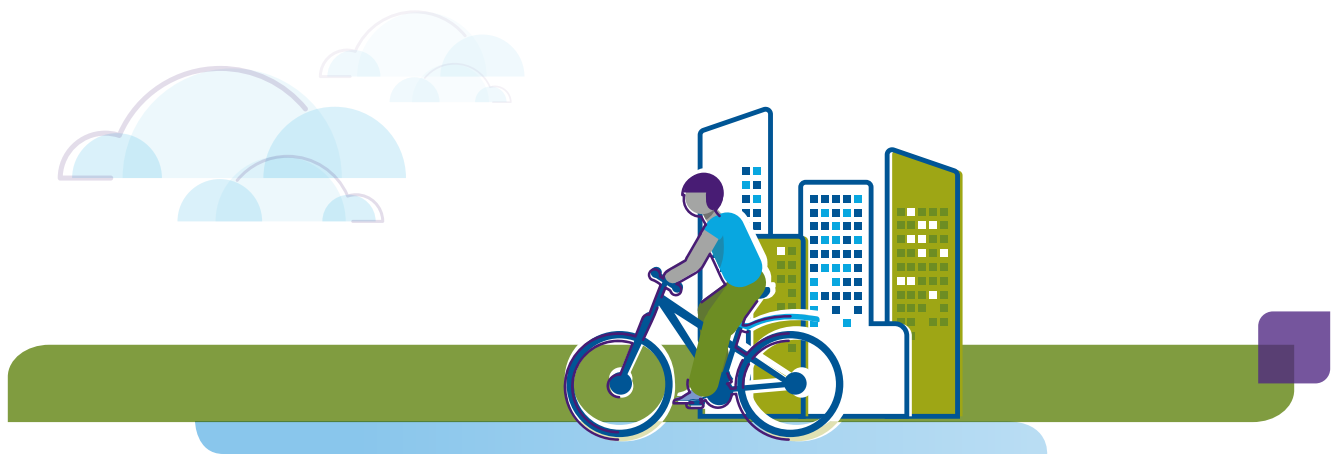
An annual report will be issued to share:

- How funds have been spent to date, including expenditures toward the 50% goal for community investments with a strong lens toward equity, race and social justice
- Progress of funded projects and programs
- The impact that CPF-funded projects and programs have made in addressing climate change
- Information on communities, households and individuals that directly benefitted from CPF-funded projects

Per the city's accounting process, the CPF annual report is expected to be delivered early in the second quarter of every year, and no later than June 30.

CONCLUSION

The creation of the Climate Protection Fund presents an incredible opportunity for Denver and comes at a critical time for humanity. The most recent report from the Intergovernmental Panel on Climate Change² made it clear: if the collective nations of the world do not immediately curtail the production of greenhouse gas emissions, the catastrophic climate-fueled disasters of recent years will not only continue but will escalate. The people of Denver understand that we must take responsibility for our contribution to the global climate crisis and support our most vulnerable community members to build resilience. They put their dollars and trust in the Office of Climate Action, Sustainability and Resiliency to answer the call. We hear you, we appreciate your partnership, and with your support, we know this fund will have the impact you intended.



² <https://www.ipcc.ch/2021/08/09/ar6-wg1-20210809-pr/>



The Vision

On November 3, 2020, nearly 65% of Denver voters approved Ballot Measure 2A, the Climate Protection Fund, creating a 0.25% sales tax to raise approximately \$40 million per year dedicated to climate action. The ballot measure stated that the new sales tax will:

“Fund programs to eliminate greenhouse gas emissions and air pollution, and adapt to climate change. Funding should maximize investments in communities of color, under-resourced communities and communities most vulnerable to climate change.”

The Climate Protection Fund was referred to the ballot by City Council on the recommendation of the Denver Climate Action Task Force, which urged Denver to:

“Be a model for the nation and world by working urgently to create, pass, and implement bold policies that achieve a 40% greenhouse gas emission decrease community wide by 2025, 60% by 2030 and 100% by 2040, using a 2005 baseline, centering and investing in frontline communities³ and inspiring people in our city to embrace sustainability as a value.”

³ Frontline communities are those that experience the consequences of climate change “first and worst.”



This plan embraces that vision and formally adopts new greenhouse gas emissions reduction goals in line with the latest climate science along with key strategies in the Climate Action Task Force Recommendations Report.

The ordinance governing the Climate Protection Fund (CPF) charged the Office of Climate Action, Sustainability and Resiliency (CASR) with its management. CASR will utilize the funds to meet the goals set out in the ballot measure, endeavor to achieve the Climate Action Task Force recommendation to eliminate greenhouse gas emissions in Denver by 2040 and prepare our community for climate change impacts.

Equally important to *what* the CPF does is *how*. The CPF ordinance also states that the fund:

“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.”

CASR interprets this statement to mean that at least half of the funding issued through the CPF should go toward projects that directly benefit people of color and Indigenous people, low-income households and people living with chronic health conditions, as well as children and older adults and those most impacted by climate change. Ideally, the 50% target can be achieved annually, but the ordinance also allows the CPF to support “one-time opportunities and catalytic projects” which may skew those annual figures. Most importantly, CASR understands that while 50% “over the long term” is the stated requirement, the true objective is to consistently maximize the plan’s benefits for under-resourced communities.

CASR will develop strategies to use the funds to accomplish the transformational change that is required to eliminate greenhouse gas emissions, adapt to a changed climate and to center this work in equity. CASR will lead the city to envision a climate-safe future and use the CPF funding to achieve that vision.

To do this work, CASR developed a framework to determine both how the CPF’s investments will be put to maximum use and how the fund’s impact will be reported to the community. The intent of this five-year plan is to outline this framework, and the CPF ordinance requires that this plan be submitted to the Sustainability Advisory Council and Denver City Council within one year of the passage of the ballot measure.

About the Office of Climate Action, Sustainability and Resiliency

Mayor Michael B. Hancock and the Denver City Council created CASR to manage the city's ambitious emission reduction goals and sustainability programs in collaboration with fellow departments, other units of government and community partners. The office ensures that the city's targets are aligned with current climate science, promotes the role that climate action and sustainability play in strengthening Denver's economic vitality and a prosperous future for all residents and businesses, and embraces equity as a value and practice across all of its work. As stated in the ordinance which created the office, CASR serves to:

- Act with urgency to proactively mitigate climate change by advancing science-based strategies to reduce greenhouse gas emissions on a scale and timeline that align with the recommendations from the Intergovernmental Panel on Climate Change
- Cultivate resiliency in the face of potential climate change-related emergencies
- Secure an economically, socially and environmentally sustainable city for generations to come
- Ensure that the setting of goals and metrics and monitoring of results considers equity

CASR is a new agency, established on July 1, 2020. CASR began as a team of 11, with no defined units, primarily focused on policies and programs in the areas of buildings and homes, renewables and electrified mobility, as well as managing the Sustainable Neighborhoods and Certifiably Green Denver engagement programs. In February 2021, CASR acquired the Denver Recycles/Denver Composts team from the Department of Transportation and Infrastructure, adding to the agency's sustainability profile and enabling it to develop focus areas in circular economy and natural resources. In March 2021, CASR organized itself into units including Climate Action, Resource Management, Communications and Engagement, and Finance and Administration. CASR started with 11 staff in 2020 and doubled in 2021. CASR staff is expected to double again by the end of 2022.



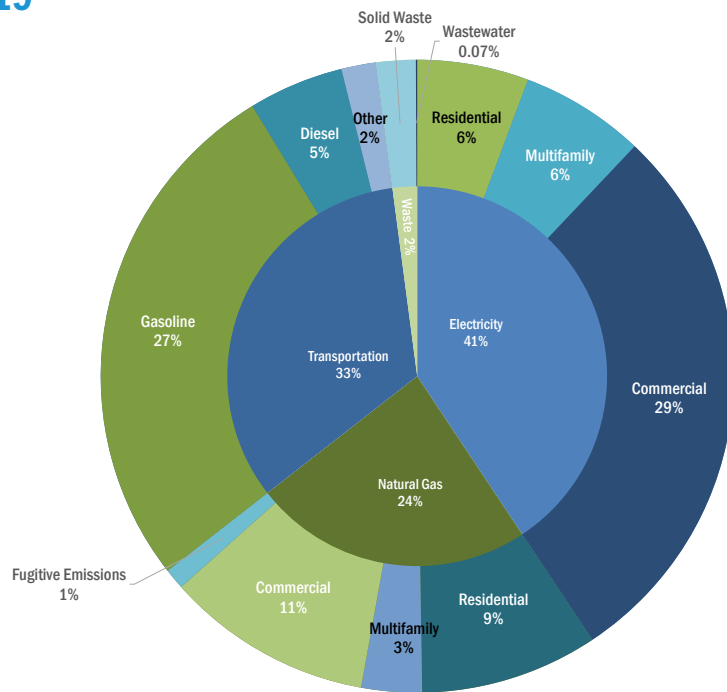
Greenhouse Gas Emissions Mitigation and Science-Based Targets

Denver conducts an annual GHG inventory using an internationally recognized best practice for cities, the [Global Protocol for Community-Scale Greenhouse Gas Emission Inventories \(GPC\)](#). The purpose of a local GHG inventory is to inform policy making and strategies to reduce or eliminate GHG emissions. Due to the COVID-19 pandemic, data for 2020 is not representative of normal operations. As a result, we are using 2019 data in this plan. We continue to conduct annual greenhouse gas emissions inventories to understand trends in the data. The top GHG sector emissions in Denver are from buildings, homes and transportation.

Figure 4: Denver's Greenhouse Gas Emissions Inventory, 2019

Denver's GHG Emissions - 2019

Other transportation category includes emissions from electric vehicles, railways & Light Rail, transit, in-boundary aviation, and off-road vehicles. Other building fuels include propane and stationary diesel. Diesel and propane in buildings comprise 0.2% of total emissions. Their contribution is not included in this image



The CASR ordinance specifies that goals and strategies must align with internationally recognized climate science. Cities and businesses around the world are adopting science-based targets (SBT) to align their ambition with the latest climate science. The SBT represents our community's fair share of greenhouse gas reductions necessary to meet the Paris Agreement commitment of keeping warming to 1.5 degrees Celsius. To achieve this goal, the Intergovernmental Panel on Climate Change (IPCC) states that we must reduce global emissions by 50% by 2030 and achieve climate neutrality by 2050.⁴ Equitably reducing global emissions by 50% requires high-emitting, developed nations to reduce their emissions by more than 50%. These are also the nations that have historically generated the most emissions.

⁴ IPCC Special Report: Global Warming of 1.5° C Summary for Policymakers <https://www.ipcc.ch/sr15/chapter/spm/>

An analysis conducted through the [Race to Zero](#) initiative, found that Denver should strive for a 62.8% reduction in greenhouse gas emissions by 2030 from a 2019 baseline.⁵ The methodology⁶ includes the following inputs:

- Denver’s [2019 GHG emissions inventory](#)
- Current and projected population growth
- The [United States’ Human Development Index \(HDI\)](#)
- The planetary emissions carbon budget available to limit global temperature rise to 1.5°C above pre-industrial levels. This is the level of maximum warming recommended by the IPPC and agreed to by 195 country signatories of the Paris Climate Agreement.

Denver is one of more than 100 U.S. cities and counties to be recognized in the Race to Zero this November at the United Nation’s 26th international climate conference of the parties (COP26) in Glasgow, Scotland. Only a few of these communities have formally adopted a SBT.

This SBT was endorsed by the Sustainability Advisory Council on the recommendation of its Science and Research committee. Mayor Hancock accepted this recommendation and increased the ambition of the goal to a 65% reduction in emissions by 2030 from a 2019 baseline.

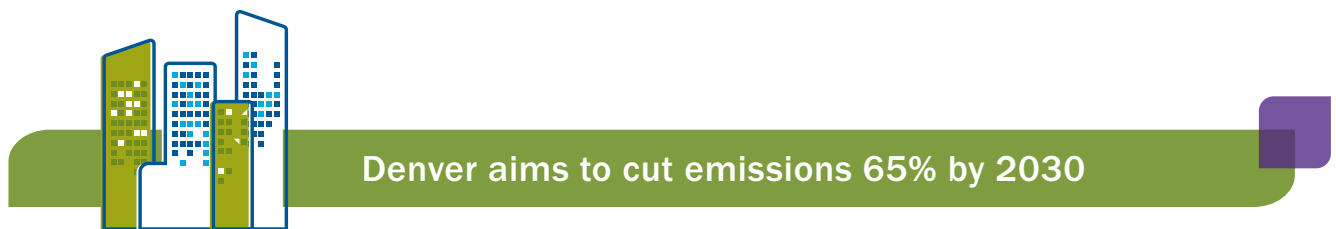


Table 1: Denver’s Greenhouse Gas Emission Reduction Goals

Goal Year	Greenhouse gas emission reduction
2025	40%
2030	65%
2040	100%


These new goals are also aligned with the recommendation of Denver’s Climate Action Task Force. Additional actions at the federal, state and local level will be needed to achieve these goals, including the Energize Denver building performance policy, net zero energy building codes, accelerated EV adoption, stringent federal clean car standards, accelerated multi-modal transportation infrastructure, changes to land use and planning, and widespread renewable energy deployments.

⁵ The new baseline year of 2019 will be used instead of 2005 because the methodology for conducting municipal GHG inventories has changed and the recent data is more robust.

⁶ https://wwfint.awsassets.panda.org/downloads/wwf_opcc_assessment_framework_and_technical_details_2021_04_08.pdf

Denver will not purchase offsets to achieve these goals. In addition to strategies that directly eliminate emissions, Denver will pursue nature-based solutions to sequester carbon, including preservation of shortgrass prairie, preservation and expansion of the urban tree canopy, and preservation and maintenance of forests in the Denver Mountain Parks.

CASR will analyze the overall impact on emissions reductions for CPF investments with a mitigation component. In the early years of the fund, more emphasis will be placed on mitigation because of the “time value” of carbon: greenhouse gas emissions eliminated today are more valuable than an equivalent emissions reduction in the future. In addition, the most recent IPCC report emphasizes that cutting methane, one of the most potent greenhouse gases, is critical to the goal of keeping global warming to 1.5 degrees Celsius.⁷ We also know that cutting greenhouse gas emissions has significant co-benefits for air quality because the sources of carbon pollution are often the same sources of other air pollutants.⁸



“If we can make a big enough cut in methane in the next decade, we’ll see public health benefits within the decade, and climate benefits within two decades.”

— Drew Shindell, Duke University, professor of Earth Science

Metrics

- Cumulative GHG emissions avoided over the life of the project
- Where possible to calculate, cumulative co-pollutants avoided over the life of the project

⁷ <https://www.canarymedia.com/articles/climate-crisis/cutting-methane-emissions-could-make-big-dent-in-climate-change-un-report-says>

⁸ Co-benefits of mitigating global greenhouse gas emissions for future air quality and human health <https://www.nature.com/articles/nclimate2009>

Climate Adaptation

Climate change adaptation requires significant adjustments in ecological, social, and economic systems to respond to permanent changes in our climatic system. A key step in climate adaptation planning is assessing the top vulnerabilities for our community. In its [2014 Climate Adaptation Plan](#), Denver identified three top vulnerabilities:

1. An increase in temperature and urban heat island effect
2. An increase in frequency and severity of extreme weather events, such as hail, wind, rain, snow or drought
3. Reduced snowpack and earlier snowmelt, affecting water availability and water quality

Adaptation planning helps mitigate risk and prepare for known vulnerabilities. It can also increase resilience to shocks and stressors caused by the inherent uncertainties of a changed global climatic system. The Fourth National Climate Assessment, a report mandated to be delivered to the U.S. Congress and President every four years by the U.S. Global Change Research Program, points to the significant societal benefits of climate adaptation through avoided costs that are many times greater than investments in adaptation.

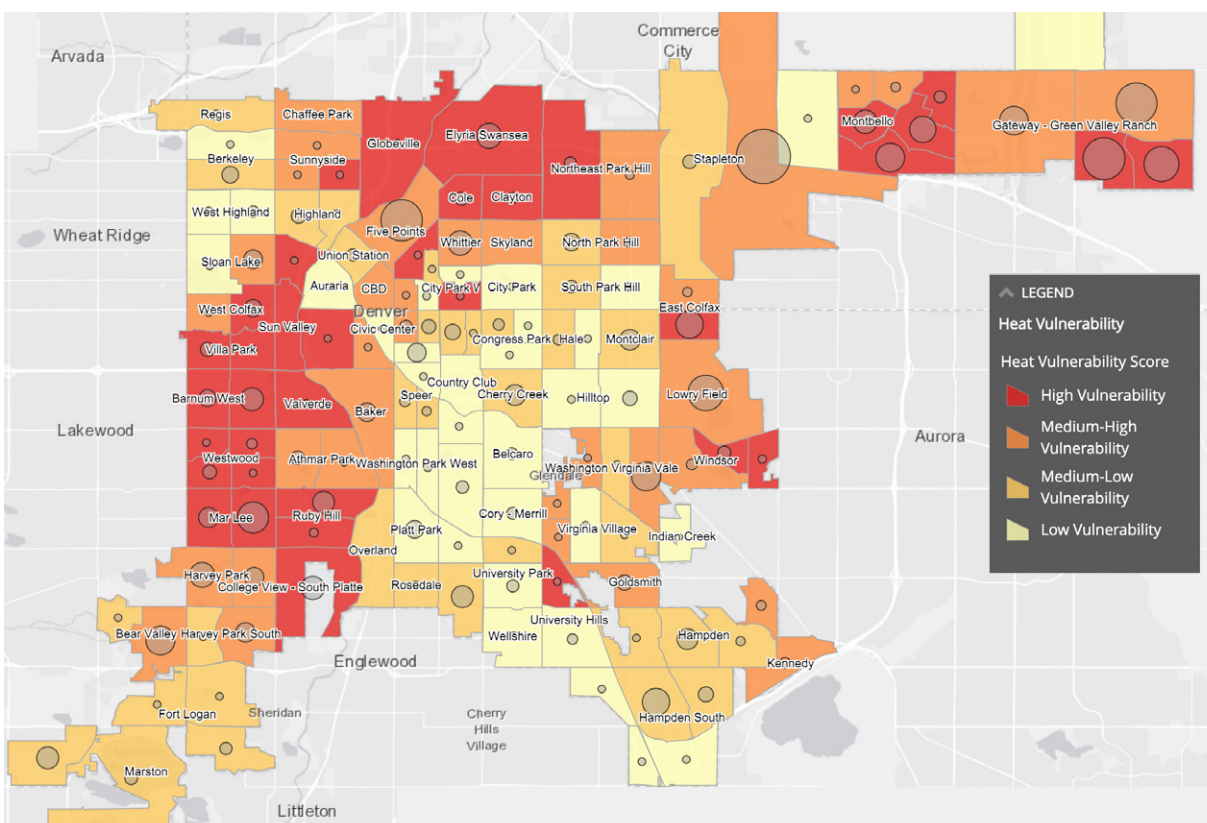
There are significant inequities in who is most impacted by climate change. One example is extreme heat. Interconnected socioeconomic, health and environmental conditions increase heat vulnerability. Denver's heat vulnerability index demonstrates that these factors converge, making neighborhoods in north and west Denver the most vulnerable. Factors that contribute to heat vulnerability include age, disability, health conditions such as diabetes, and lack of access to cooling. We also know that outdoor workers will be significantly impacted by climate change, leading to a loss in income and increased health impacts.

“Those with low income or no high school diploma are approximately 25% more likely than non-low income individuals and those with a high school diploma to currently live in areas with the highest projected losses of labor hours due to increases in high-temperature days with 2 °C of global warming.”

Source: [EPA's Climate Change and Social Vulnerability in the United States](#)


Figure 5: Denver's Heat Vulnerability Map

Denver's Heat Vulnerability Map



Denver's heat vulnerability index shows that social, demographic, health and built environment factors contribute to heat vulnerability, with stark differences across neighborhoods.

For CPF investments with a climate change adaptation component, CASR will analyze whether the project can address a significant climate change vulnerability in Denver. In addition, we will analyze to what extent the project benefits a disproportionately impacted community or one that has a significant vulnerability to climate change impacts. As defined in Colorado state statute, disproportionately impacted communities are those in which historic and current systemic injustices harm people's environmental, economic, and/or social well-being. These communities often include people of color, Tribes, Indigenous people, lower-income populations, rural communities and other underrepresented and/or overburdened individuals and families. In disproportionately impacted communities, compounding burdens such as pollution, structural racism and classism affect environmental quality, economic investment, ability to influence policy and, ultimately, public health. We will identify which community is being invested in, collecting climate vulnerability and demographic data about the community (e.g., social, racial, economic, health and other indicators), and analyzing to what extent the community is disproportionately impacted or has significant vulnerability to climate change.



“Populations including older adults, children, low-income communities and some communities of color are often disproportionately affected by, and less resilient to, the health impacts of climate change.”

Source: [The Fourth National Climate Assessment](#)

Metrics

- Avoided costs (e.g., economic, health, etc.) from climate change harms
- Improvements in localized heat islands as measured by the urban heat island index
- Where applicable, improved infrastructure conditions (e.g., reduced vulnerability to flooding, increased access to cooling, increased access to green space, etc.)
- Where applicable, increased access to extreme weather insurance
- Where applicable, increased awareness of early signs of heat-related illness and guidance on self-treating
- Where applicable, increased awareness of cooling centers and how to access them

Equity

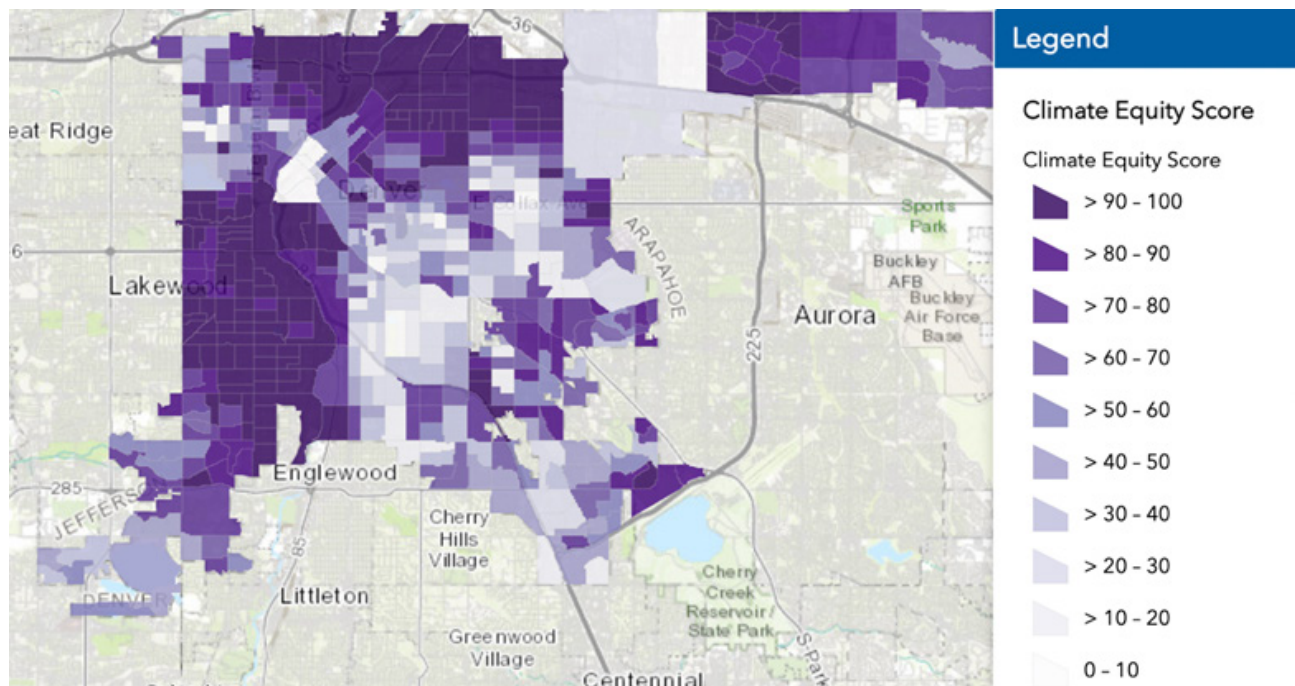
Equity is achieved when a person’s identity does not determine their opportunities or life outcomes. Equitable and inclusive communities are places of belonging that provide access to resources and opportunities for all people to improve the quality of their life. As a city, we advance equity by serving individuals, families and communities in a manner that reduces or eliminates persistent institutional biases and barriers based on race, ability, gender identity, sexual orientation, age and other immutable factors. The pursuit of equity is a systemic endeavor, and it requires that government examine the impact of its policies, programs and investments in order cease the continuation of current harms and prevent the creation of new harms.

CASR commits to learning from the community, using national best practices, analyzing data and prioritizing community-centered approaches in all our work. We believe that equity work requires deep reflection on the role government has played in perpetuating injustices. This is critical to the success of our mission and our ability to further engage our community in co-creating solutions that lead to better outcomes for all people.

We know that communities in north and west Denver are more impacted by climate change and air pollution, as evidenced by the data found in [Colorado’s Climate Equity Data Viewer](#).

Figure 6: Climate Equity Score for Denver area

Climate Equity Score for Denver Area



This data set and others will inform Denver's work. Trends over time in terms of sources of GHG emissions, air pollution, vulnerability to climate change impacts, and other climate inequities will be monitored and evaluated to develop new strategies.

CASR will analyze the extent to which the investment reduces costs, including currently externalized costs, and increases economic benefits, minimizes negative health impacts and increases health benefits for disproportionately impacted communities. We will ensure that programs directly serve and engage disproportionately impacted people. We will use participatory and inclusive design whenever possible to ensure projects address a community-identified priority.

Metrics

- Reduced household costs for energy or transportation
- Reduced exposure to air pollution, such as particulate matter and nitrogen oxides
- Number of disproportionately impacted people who are served and percent of funds benefitting disproportionately impacted communities
- Avoided costs from climate change harms (e.g., health care, property damage, etc.)
- Increased access to good green jobs

Innovation

In some cases, the work undertaken through the CPF has not been done before or has not been implemented at scale. CASR will analyze whether the investment allows for testing of new, innovative approaches that will drive systemic change. Key questions include:


- Is the approach new, or does it replicate a successful approach?
- What existing approaches/theories/evidence does the investment build upon?
- How does the investment include systems approaches?
- Does the investment utilize a market-driven approach? Does it leverage additional private investment?
- What protocols can be used to measure and verify the performance of this new concept or solution?

Strategies CASR may use include hosting community ideas competitions, activating the private sector and market-based approaches to scale up solutions and leverage funding, creating cross-sectoral partnerships, and more.

Community Engagement

The CPF ordinance allowed for one year from passage for CASR to develop this five-year plan. In that short time, this plan has been informed and supported by numerous community engagement opportunities. The CPF-focused discussions with external stakeholders began in earnest almost immediately after the ballot initiative passed, and became more formalized in April 2021 with a [virtual informational session](#) for nonprofit organizations, and a presentation to the Denver City Council Committee on Safety, Housing, Education & Homelessness.

CASR's most intensive and consistent dialogue in the development of this plan was with the Sustainability Advisory Council (SAC) and its six standing committees. Inspired by the 2020 Climate Action Task Force, the SAC includes 120 representatives of community-based organizations, advocates for the environment, active transportation and social justice; professional engineers, researchers and scientists; energy experts; building owners and managers; and residents from all Council districts passionate about climate action and sustainability. The six committees met monthly beginning in April 2021, for a total of over 40 meetings prior to the final draft of this plan. Additionally, the SAC itself (comprised of the co-chairs of each committee, two at-large committee members and one member of City Council), met three times during the development of this plan. As noted in the Greenhouse Gas Emissions section of this plan, the SAC voted to recommend that CASR adopt more aggressive emissions reduction goals aligned with current climate science, which we have done.



The plan has also been informed by numerous CASR-led and citywide planning efforts over the past several years, including:

- [Energize Denver Task Force](#) (January – September 2021): CASR convened diverse representatives including building owners and managers, utility and energy providers, residents, tenants, nonprofits, labor, environment and clean energy advocates, to develop a new building performance policy. Two public information sessions were held and public input on the draft recommendations was tracked. The task force's consensus recommendations were released in September 2021.
- [Renewable Heating and Cooling Plan](#) (June 2021): The plan was shaped through extensive engagement with a diverse group of over 200 Denverites, including household interviews and surveys specifically with people of color and under-resourced households. Guidance and ongoing expert input were provided by our advisory groups and workforce roundtables that included public health experts, building energy systems contractors and building managers with specializations in residential, commercial and multifamily buildings.
- [Net Zero Energy \(NZE\) New Buildings & Homes Implementation Plan](#) (January 2021): Denver hosted seven meetings with the NZE Stakeholder Advisory Groups to provide specific and achievable pathways to NZE new buildings and homes. These groups included technical experts for commercial, multifamily and residential buildings, as well as developers, general contractors, builders, architects, engineers, researchers, sustainability consultants and renewables and utility representatives. The draft plan was shared with the community during a public input meeting, and a survey was conducted to gain input on the overarching net zero energy goal.
- [100% Renewable Electricity Action Plan](#) (August 2020): Denver's 100RE Plan Advisory Committee included representatives of the city's utility, solar industry associations, energy and environmental advocacy groups, youth sustainability advocates and other public institutions, and a public survey was conducted.
- [Electric Vehicle \(EV\) Action Plan](#) (April 2020): Community stakeholders were interviewed, including representatives of under-resourced communities. A diverse steering committee provided feedback throughout the development of the plan and engaged the broader community. CASR held a public meeting to receive input on the draft plan and solicited feedback via e-mail and newsletters.
- [Climate Action Stakeholder Process](#) (January – June 2020): This process brought together a diverse task force and offered numerous public engagement opportunities. They included:
 - o Two rounds of small community meetings with hundreds of Denver residents and business representatives in February and March 2020
 - o Stakeholder Advisory Group meetings in April with youth, climate activists, labor and workforce, business and industry, people vulnerable to climate impacts, and frontline communities
 - o [The Denver Climate Action Consider It web platform](#) sought public input from April 20-May 4, 2020 with hundreds of ideas submitted
 - Climate Action Task Force Recommendations Report (June 2020)
 - Community Support for Climate Action Report (May 2020)

- [Climate Action Plan](#) (July 2018): Denver’s climate action team created four advisory committees to develop strategies for achieving the city’s ambitious climate goals. Multiple public meetings were held, and a citywide survey was conducted to gather feedback on the plan and to inform the strategies.
- [Climate Adaptation Plan](#) (June 2014): The Denver Department of Public Health and Environment worked across all city agencies and with external stakeholders to create this plan. It includes actions across social, economic and environmental sectors, including human services and other key community partners.



ONGOING ENGAGEMENT

CASR established a Communications and Engagement Division to further support the work of the fund by bringing awareness to CPF-funded projects. This team will proactively share current opportunities for funding, with a focus on ensuring groups and organizations that serve under-resourced communities are aware of these opportunities. CASR will support engagement efforts for all CPF-funded projects to ensure the community’s voice is represented.

Community engagement is critical to our ability to deliver benefits equitably across the city. We recognize that successful engagement is directly tied to the quality of our relationships with the community, the trust we earn and our demonstrated commitment to delivering meaningful and tangible benefits. We also recognize that the relationship between government and community has too often and for too long been strained; we commit to shifting to a new paradigm where the community is and feels valued as central to our work. As we grow in this work, we welcome honest, candid and productive feedback on how we can improve.

Projects and programs funded by the CPF will each have a community engagement aspect to ensure our goals and objectives are aligned with the needs and desires of the communities we serve. A framework for community engagement will be developed to determine the type of engagement, frequency of contact, level of engagement and what tools, strategies or methods are most appropriate.

CASR will clarify from the onset what we hope the role of the public is in planning and decision-making, and how much influence the community has over planning or decision-making processes. The Spectrum of Public Participation from the International Association of Public Participation provides a framework that can inform our process, and will serve as a model to determine the best level of engagement:

1. Inform

- o Public participation goal: To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities or solutions.
- o Promise to the public: We will keep you informed.
- o Examples include posting information to our website, sharing information on social media channels and publishing annual reports.

2. Consult

- o Public participation goal: To obtain public feedback on analysis, alternatives or decisions.
- o Promise to the public: We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how public input influenced the decision. We will seek your feedback on drafts and proposals.
- o Examples include requesting feedback on plans, conducting surveys or incorporating feedback on programs and initiatives.

3. Involve

- o Public participation goal: To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.
- o Promise to the public: We will work with you to ensure that your concerns and aspirations are directly reflected in the outcomes developed and provide feedback on how public input influenced the decision.
- o Examples include hosting listening sessions prior to plan or program development, asking for thoughts, ideas and input for funding opportunities or help with determining timelines, audiences and scope of implementation.

4. Collaborate

- o Public participation goal: To partner with the public in each aspect of the decision, including the development of the preferred solution and acceptable alternatives.
- o Promise to the public: We will work together with you to formulate solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.
- o Examples include establishing a task force or advisory committee to develop recommendations, partnering with and funding local organizations to drive implementation, or establishing a framework to clarify the role of a collaborator in the decision-making process with respect to each party's limitations.

5. Empower

- o Public participation goal: To place final decision-making in the hands of the public.
- o Promise to the public: We will implement what you decide.
- o Examples include hosting a naming contest for a CPF asset or program or choosing the location of a capital investment.

At minimum, CASR will endeavor to INVOLVE the community in its decision-making process. Whenever possible, CASR will elevate its community engagement efforts to COLLABORATE and, in some cases, EMPOWER, inviting the community to serve as co-creators or drivers of the decision-making process. It is important to note that the highest levels of engagement may not always be possible within government, as most final decisions rest with elected officials and agency staff as directed by law or regulation. Using the development of this five-year plan as an example, CASR's overall engagement effort met the definition of INVOLVE, and input from the SAC met the goals of COLLABORATE.

Accountability, Transparency and Reporting

CASR will issue an annual report to share:

- How funds have been spent to date, including expenditures toward the 50% goal for community investments, with a strong lens toward equity, race and social justice
- Progress of funded projects and programs
- The impact that CPF-funded projects and programs have made in addressing climate change
- Information on communities, households and individuals that directly benefitted from CPF-funded projects

These annual reports will be reviewed by the executive director of CASR, CASR staff and the Sustainability Advisory Council, and they will be provided to the public, City Council and the Mayor. Per the city's accounting process, the CPF annual report is expected to be delivered early in the second quarter of every year, and no later than June 30.

We will also survey the community for feedback on the CPF's progress and to better inform our work moving forward. In addition to the fund's finances, each annual report will include a description of community engagement activities and their influence on the fund's investment strategies.

Allowable Uses

All revenue in the CPF must be expended on efforts that will eliminate greenhouse gas emissions and air pollution, and help Denver adapt to climate change. As stated in the CPF ordinance, the six categories of allowable uses are:



- Job creation through local workforce training and new careers for under-resourced individuals in clean energy technology and management of natural resources



- Increased investments in solar power, battery storage and other renewable energy technology



- Neighborhood-based environmental and climate justice programs



- Adaptation and resiliency programs that help vulnerable communities prepare for a changing climate



- Programs and services that provide affordable, clean, safe and reliable transportation choices, like walking, biking, transit, electric vehicles and neighborhood-scale transit



- Upgrades to the energy efficiency of homes, offices and industry to reduce their carbon footprint, utility bills and indoor air pollution.

CASR embraces the goal specified in the ordinance “to invest fifty percent (50%) of the dedicated funds directly in the community with a strong lens toward equity, race and social justice.”

The funding will be prioritized toward spending on areas that enable equitable policies to be implemented that get the city as close as possible to the ambitious climate and equity goals laid out in the ordinance and by the Climate Action Task Force.

Funding will also be prioritized for projects that address more than one allowable use with multiple benefits. For example, projects that can both reduce greenhouse gas emissions while also providing an adaptation benefit will be critical to maximizing the impact of the CPF.

Catalytic Projects

The CPF ordinance allows for “the flexibility to take advantage of one-time opportunities and catalytic projects.” Particularly in early years, large-scale projects that can achieve a high level of GHG emissions reductions may be prioritized to increase the impact of the fund over time. Large-scale capital projects can be deployed quickly, while CASR simultaneously directs CPF funds into capacity-building investments across the community and within the agency to deliver new, innovative programs. In the early years of the fund, more emphasis will be placed on mitigation because it is critical to reduce emissions now rather than further delaying emissions reductions into the future.

Given this priority, CASR may take advantage of opportunities to invest in physical infrastructure projects such as renewable electricity, energy storage and resilience systems, and electrification during planned construction at municipal facilities. These investments are important to ensure that new or renovated municipal facilities avoid locking in fossil fuel infrastructure that could remain for decades or require costly replacements in future years. Over time, the need for CPF investment to pay for incremental decarbonization costs at city facilities will wane as Denver’s policies are updated and net zero new construction and carbon-free replacements of fossil fuel systems achieve cost parity and become the norm.



Job Creation

Job creation through local workforce training and new careers for under-resourced individuals in clean energy technology and management of natural resources

There is a significant opportunity today to ensure that climate action drives the creation of new, quality jobs and increases access to those jobs for all people. Recognizing this opportunity, CASR has been working in partnership with Denver Economic Development and Opportunity (DEDO) since December 2020 to develop a Green Workforce strategy. This work was supported by the American Cities Climate Challenge, Delivery Associates and Inclusive Economics. The vision for the Green Workforce strategy is to create career pathways and expand opportunities for workers, with a focus on people from under-resourced communities, and enable a just transition to support a climate-resilient and sustainable Denver.

Outcomes

Denver will see an increased demand for jobs in the green economy through thoughtful policy design and incentives. Workforce development programs and labor standards, such as community hiring goals or certification, apprenticeship, or other worker skill requirements to engage a skilled and trained workforce, will ensure those are quality jobs. New and enhanced services will increase outreach and engagement to ensure that these jobs are accessible to everyone, especially those who have been left out of the opportunities in the green economy. CASR will seek to incentivize commitments to workforce development and labor standards using the CPF. Over the long term, the workforce ecosystem for the green economy will be robust, accessible and inclusive.

Goals and Plans

The goals of the Green Workforce strategy are:

1. Quality: Design policies, incentives and programs to create quality, career-track jobs
2. Access: Reduce barriers and increase access to career pathways for residents from under-resourced communities, people of color and workers in industries in transition
3. Aligned with priorities: Ensure jobs created align with Denver's climate, sustainability and resiliency priorities

Planning to implement this strategy is ongoing. CASR and DEDO will partner with communities and organizations to understand and strengthen the green workforce ecosystem in Denver.



Metrics

With the establishment of any new program, data collection is critical and often requires engagement with stakeholders to understand what data are available. The metrics below are those that have been initially identified for tracking. Over time, CASR will evaluate which metrics are the most meaningful, moveable and measurable, and set targets to ensure progress toward goals.

- Percent of CPF dollars funding projects with labor standards, such as community hiring goals, or certification, apprenticeship or other worker skill requirements
- Percent of CPF-funded jobs held by residents from under-resourced communities ([NEST Neighborhoods](#)), individuals with barriers to career-track employment and transition-industry workers
- Number of jobs supported by CPF (direct and indirect)
- Number of partnerships with targeted school and training organizations
- Number of people from target population recruited into clean energy training programs
- Demographic and participant information for those enrolled, including:
 - Formerly experienced homelessness
 - Justice-involved
 - Women
 - People of color
 - TANF participants
 - Veterans
 - Opportunity youth (youth who are no longer in school ages 16-24)
 - Graduates from pre-apprentice programs
 - [WORKNOW](#) participants
- Potential barriers to employment for the individual
- Number of people who received wrap-around services by category of services received (e.g., childcare, record expungement, transportation, etc.)
- Number of people who received construction-readiness support and the category of support they received (e.g., boots, tools, childcare, transportation, union dues)
- Number of educational/career exposure sessions, including clean energy job fairs
- Number of internships created (and internship hours)
- Number of certifications achieved and percent of participants certified
- Number of people who received scholarships for upskilling
- Number of people enrolled in pre-apprenticeship training

- Number of people graduated from pre-apprenticeship training
- Number of people placed into an apprenticeship
- Number of people placed into a job and still employed full time at one and three years
- Initial wage in new job

Investment Strategy and Criteria

Year-one investments will prioritize workforce recruitment, barrier reduction, up-skilling and re-skilling in support of Denver’s climate goals. Years two through five will build on year-one investments to strengthen the Denver ecosystem for green workforce development by better connecting outreach, training and employment opportunities to ensure a more integrated and efficient process for job seekers and trainees. This will require a gap analysis after the first year to identify where additional innovation or new services are needed in the green workforce ecosystem.

Early Investment Example: Workforce Development for Good Green Jobs

CASR, in partnership with DEDO, released an RFP for “Workforce Development for Good Green Jobs” on August 19, 2021. The goal of the RFP was to expand equitable access to good jobs in the green economy through workforce development and employment opportunities for Denver residents. Contracts with six organizations totaling \$2.1 million were issued to fund outreach, education, up-skilling, re-skilling, pre-apprenticeships, apprenticeships, on-the-job training, barrier removal services and more. The services will increase access and reduce barriers to employment for people from under-resourced communities, people of color and workers in industries in transition.





Renewables

Increased investments in solar power, battery storage and other renewable energy technology

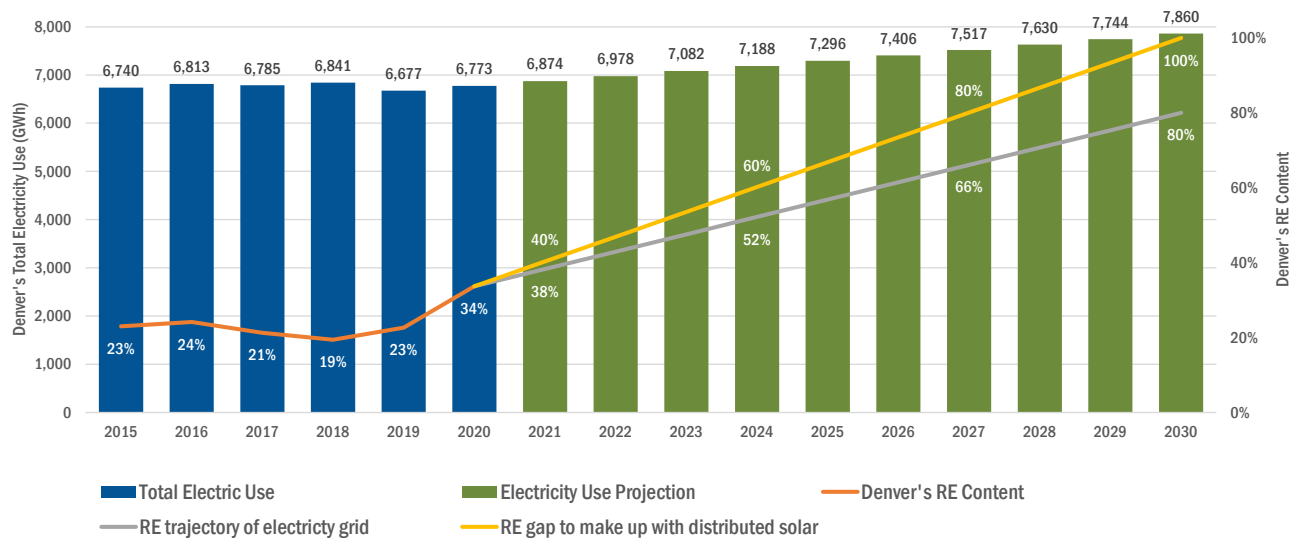
Denver's renewable vision is to enable a rapid and equitable transition to a 100% renewable electric system in Colorado. Denver's renewable electricity content reached 34% in 2020. Further progress will be accomplished through the decarbonization of Xcel Energy's grid mix, greater deployment of distributed resources and increased community participation in renewable programs.

Outcomes

1. GHG Reductions. Clean energy displaces fossil fuels in the electric grid
2. Workforce Development. Investments in local energy systems create job training and career development opportunities
3. Utility Bill Savings. Solar, storage and other renewable energy technologies potentially reduce or eliminate electricity bills
4. Resiliency. Distributed energy resources are able to support grid functionality and also enable homes, buildings and critical public facilities to stay powered through grid outages
5. Cleaner Buildings and Transportation. Increased electric loads in buildings and transportation can be met with clean energy resources

Figure 7: Denver's Renewable Electricity Content

Denver's Community-wide Electricity Use (Renewable Electricity Content and Projections)



Goals and Plans

All investments under this allowable use will be aligned with Denver's 100% Renewable Electricity Plan and Denver's Climate Action Plan, as well as the recommendations of the Climate Action Task Force. Denver's goal is to achieve 100% renewable electricity by 2025 for municipal facilities and community wide by 2030.



Metrics

With the establishment of any new program, data collection is critical and often requires engagement with stakeholders to understand what data are available. The metrics below are those that have been initially identified for tracking. Over time, CASR will evaluate which metrics are the most meaningful, moveable and measurable and set targets to ensure progress toward goals.

- **Clean Energy Deployment:** Progress will be measured in terms of the capacity and energy values (kW/kWh) of distributed energy resources deployed, as well as how far it moves the city toward its 100% renewable electricity goals.
- **Equity:** CASR will measure how its investments help reduce energy cost burdens, increase resiliency and provide benefits to target populations identified by the ballot measure, including people of color and Indigenous people, low-income households and people living with chronic health conditions, as well as children, older adults and those most impacted by climate change.
- **Resilience:** CASR will develop metrics to evaluate how its investments increase resilience for the continuation of government services, public safety and the operations of nonprofit human service providers.
- **Workforce:** Workforce will be measured through the portion of dollars spent that go toward women- and minority-owned businesses; businesses that utilize labor standards, such as on-the-job training opportunities; certification or apprenticeship programs; benefits like health care, retirement savings and wage standards; best value/responsible contracting; and regional targeted and local hire requirements.

Investment Strategy and Criteria

Denver's Sustainability Advisory Council Energy Committee recommended the following priorities for CASR's efforts:

- Prioritize access to affordable clean energy options, while ensuring that Denver's energy infrastructure promotes environmental, economic and social benefits for residents from under-resourced communities.
- Pursue policies, incentives, programs and projects to achieve Denver's goal of 100% renewable electricity by 2030.
- Employ a systems-thinking approach to Denver's energy landscape and coordinate the integration of multiple technologies and policies to achieve Denver's goals.

The following table shows a suite of complementary programs intended to fill multiple gaps in the challenge to advance Denver's electricity decarbonization and equity targets over the next five years. Earlier years will prioritize capital investments in renewable electricity infrastructure that will create municipal energy cost savings that can be recovered and reinvested in other programs. This includes "one-time opportunities and catalytic projects" as stated in the CPF ordinance, to include distributed energy resources during planned construction at municipal facilities. Large-scale municipal projects can achieve significant GHG savings in the early years of the fund. This is important because greenhouse gas eliminated today is more valuable than an equivalent emissions reduction in the future. Additionally, the CPF will be used to invest in programs to increase resilience and reduce the electricity-associated greenhouse gas emissions for residents and nonprofit critical service providers.

CASR will work with key stakeholders and partners to market Denver’s programs across its communities. We will track who is accessing our programs to adjust and consider new programs to better achieve our equity and renewable energy goals. Additionally, we will explore expanding internal operational capacity to support program administration and activities, such as asset management and operations and maintenance of the city’s distributed energy resources.

Table 2: Denver’s Electricity Decarbonization and Equity Targets

Denver’s Electricity Decarbonization and Equity Targets		
Renewables Programs	Electricity Decarbonization (100% RE by 2025 municipal and 2030 community wide)	Lifetime Contribution Toward Equity
Municipal Distributed Energy Resources	Direct investments to electrify and decarbonize municipal facilities, which account for about 5% of Denver’s community-wide electricity use.	Case dependent. CASR will consider certain factors when determining which investments count toward its equity goal. For example, investments in buildings that directly serve the public in under-resourced communities (e.g., rec centers) may contribute toward the equity goal, whereas investments in city operational facilities (e.g., the Webb Municipal Building) may not.
Renewable Denver Community Solar (RDSCS)	The first portfolio of projects (4.6 MW-dc) provides 80% of the electricity output back to each host facility and shares 20% with low-income households. Where enabled by Xcel Energy’s program, future portfolios will prioritize the development of solar projects that allocate great portions of the power output to low-income households.	75% or more Over the life of an RDSCS portfolio, nearly all up-front investment value will be recovered through municipal energy cost savings and directed toward equity programs. Additionally, power output assigned to low-income households will help reduce their energy burden.
Denver Solar Co-op	This nonprofit-led group purchase program helps local residents go solar with confidence at a reduced price.	50% goal for Solar Equity Pilot The 2021 Solar Co-op is piloting the use of income-qualified rebates and partnering with local nonprofits to connect residents to free energy support programs, including bill payment assistance, weatherization, equipment upgrades and more
Residential Energy Rebates	The primary goal of this program is to drive the adoption of highly efficient, all-electric energy equipment such as space/water heat pumps, EV charging, solar and storage by residential customers.	15% estimate Income-qualified rebates will be made available at a higher incentive rate.
Renewables and Resilience Incentive Program for Human Service Providers	This program seeks to increase resilience and reduce the electricity-associated greenhouse gas emissions of buildings by at least 20% via the deployment of distributed energy resources, including solar, storage and vehicle-to-building EV charging equipment.	100% to Human Service Providers (HSPs) Qualified HSPs include, but are not limited to, affordable housing providers, childcare centers, food pantries, homeless shelters and health care facilities.
Measurement and Verification	As of 2020, 42% renewable electricity for municipal operations and 34% community wide.	Lifetime equity value is expected to exceed 60% for CPF investments associated with renewable energy technologies.

Early Investment Example: Renewable Denver Community Solar Initiative

Denver is building 10 community solar gardens, totaling 4.6 MW, in the first phase of an initiative to host up to 15 MW of community solar gardens on municipal sites in Denver by 2025. The initiative specifically focuses on increasing equitable access to clean energy, with 20% of the energy generated being assigned to low- and moderate-income households, and a workforce component that provides paid solar installation training to expand Denver's solar workforce. Half of the arrays will be solar carports in city parking lots, which will also provide power to publicly accessible electric vehicle (EV) charging stations. In addition, nearly all the up-front investment will be recovered through the value of the solar production and directed toward other equity-focused energy programs. The Renewable Denver Community Solar Initiative was recognized by the American Cities Climate Challenge as one of the Top 10 Most Noteworthy Local Government Renewables Deals of 2020.⁹



⁹ "10 of the Most Noteworthy Local Government Renewables Deals of 2020." American Cities Climate Challenge. www.cityrenewables.org/2020-city-renewables-deals/



Environmental & Climate Justice Programs

Neighborhood-based environmental and climate justice programs

“Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin or income, with respect to the development, implementation and enforcement of environmental laws, regulations and policies.”¹⁰ The work of the CPF needs to be co-created with the communities that have experienced and continue to experience the greatest inequities and injustices with regard to environmental quality, such as poor air quality, and that are the most exposed to the negative consequences of climate change.

“You can call it institutionalized racism or institutionalized inequality, but what I say is that any system that operates to maintain inequality is a corrupt system and must be addressed.”

— Dr. Robert Bullard, Distinguished Professor at Texas Southern University and known as the ‘father of environmental justice’

¹⁰ EPA definition of environmental justice retrieved from <https://www.epa.gov/environmentaljustice>

Outcomes

1. Equal access: All people will have access to the decision-making process that will lead to a healthy environment and a climate-safe future in which to live, learn, play and work.
2. Equal protection: All people will have the same degree of protection from environmental and health hazards and climate change harms regardless of race, color, national origin, income or geographic location in Denver.

Goals and Plans

CASR will work with community stakeholders to develop a plan to guide its environmental and climate justice work.

Metrics

With the establishment of any new program, data collection is critical and often requires engagement with stakeholders to understand what data are available. The metrics below are those that have been initially identified for tracking. Over time, CASR will evaluate which metrics are the most meaningful, moveable and measurable and set targets to ensure progress toward goals.

- Number of residents, neighborhood groups and nonprofits with increased access to and influence on public decision-making for air and water quality, energy and climate policy and regulation
- Increased benefits and decreased harms from air quality and climate policies and regulations
- Number of projects located in neighborhoods that are disproportionately impacted by environmental and climate injustice
- Number of neighborhood-based organizations, associations or groups that are engaged
- Number of residents or households that are engaged
- Number of projects driven by neighborhood-identified priorities and needs
- Number of projects co-led or co-implemented with neighborhood groups or residents
- Reduction in disparities in pollution and climate-related vulnerability between communities in Denver

Investment Strategy and Criteria

CASR will work with local, state and national experts in environmental justice to design high-impact strategies and performance evaluation metrics and protocols. It will collaborate with local communities in the program design and ensure that investments made under this allowable use are truly increasing access to policy making and improving protections and outcomes for people in environmental justice communities. The investment strategy will:

- Provide resources for residents, neighborhoods and nonprofits to participate in the public process to create policy and regulations
- Invest in robust community outreach to co-create an investment plan

- Invest in training and other capacity building activities
- Invest in outreach services by community-based organizations to targeted communities, such as promotoras programs or navigator services
- Invest in community-based needs assessments and solutions for targeted neighborhoods and communities

Early Investment Example: Environmental Justice Support Fund

CASR is developing an Environmental Justice Support Fund that will provide disproportionately impacted communities in Denver assistance in participating as parties in state and federal regulatory proceedings related to air and water quality and climate change. These proceedings typically occur at the Colorado Public Utilities Commission and the Colorado Air Quality Control Commission, though other state agencies may also conduct regulatory proceedings. This fund will ensure that people who have not been represented in these policy or regulatory processes can now access them with strong representation. The fund will also provide support for language access, training on giving public testimony and other engagement efforts.



Adaptation & Resiliency

Adaptation and resiliency programs that help vulnerable communities prepare for a changing climate

Climate adaptation was discussed earlier because it is an overarching goal of the CPF, in addition to being included as one of six allowable uses. While climate adaptation and resiliency are related concepts, they are not interchangeable. Resilience is the ability of a community to rebound, positively adapt, and thrive in the face of change. The Colorado Resiliency Office created the Resilience Framework to guide state planning and it provides a similar definition. Denver's Climate Adaptation Plan, as well as future adaptation and resilience planning that will commence in 2022, will inform investments in this allowable use.

Outcomes

1. Reduced disparities in climate preparedness between different populations and geographic areas across the city
2. Increased resilience to shocks and stressors, especially in vulnerable communities
3. Improved infrastructure, including green infrastructure and mitigation of risk to personal property

Goals and Plans

CASR currently has a Climate Adaptation Plan that was developed in 2014. The Climate Action Task Force submitted recommendations for adaptation and resilience, with a lens toward equity, race and social justice, that will also provide guidance in this area. The Comprehensive Plan and the Game Plan for a Healthy City are also informative on both adaptation and resilience. A new Climate Adaptation and Resilience Plan will be developed in 2022.

Metrics

With the establishment of any new program, data collection is critical and often requires engagement with stakeholders to understand what data are available. The metrics below are those that have been initially identified for tracking. Over time, CASR will evaluate which metrics are the most meaningful, moveable, and measurable and set targets to ensure progress toward goals.

- Number of projects responsive to each of the following key climate risks faced by vulnerable communities:
 - o Increased heat
 - o Decreased air quality, wildfires
 - o Increased drought and related water scarcity
 - o Increased intensity of extreme weather (e.g., hail, wind, flooding)
- Reduced social vulnerability to key climate impacts via:
 - o Improved social connections and ties (internal and external social capital)
 - o Improved household and neighborhood disaster readiness plans
 - o Improved household economic resilience
- Number of projects located in neighborhoods with identified climate change vulnerabilities (e.g., prone to flooding, high score on heat vulnerability index)
- Cost-benefit analysis that analyzes cost avoidance for climate impacts

Investment Strategy and Criteria

While the key climate change vulnerabilities identified in the 2014 Climate Adaptation Plan remain relevant for Denver, an updated vulnerability assessment should be conducted in 2022 to help guide this investment strategy. That assessment should examine the environmental, social and economic vulnerabilities in Denver as a result of climate impacts. Strategies should be developed to address those vulnerabilities in partnership with the communities most impacted by these vulnerabilities. The current Climate Adaptation Plan will guide early investments, along with input from stakeholders.

Early Investment Example: Community Climate Ambassadors/Promotoras Climaticas

CASR is developing an application for a Community Climate Ambassadors/Promotoras Climaticas program. The intent of this project is to enable community-based organizations in climate vulnerable neighborhoods to establish outreach and communication efforts to raise awareness of Denver's top climate vulnerabilities and identify community specific barriers and preferred solutions. The participating organizations will design campaigns that best fit the needs and culture of the communities they serve, and through pre- and post-campaign surveys, the organizations will be able to measure their reach and impact. The results will inform future programs that can be funded by the CPF.



Transportation

Programs and services that provide affordable, clean, safe and reliable transportation choices, like walking, biking, transit, electric vehicles and neighborhood-scale transit

The transportation sector is the second-largest source of GHG emissions and the largest source of air pollution in Denver and is powered nearly entirely by fossil fuels. The transportation sector is decentralized, with over 600,000 vehicles registered in Denver and residents making individual decisions about how to make trips, necessitating a holistic approach.

Outcomes

Reducing vehicle trips by increasing mobility options and shifting to electric vehicles provide the following benefits:

1. GHG reductions
2. Improved air quality from reduced criteria pollutants
3. Lower household expenses
4. Health improvements from active transportation and increased safety
5. Greater access to jobs, amenities and opportunities

Goals and Plans

In 2020, Denver released its [EV Action Plan](#) outlining steps the city should take to increase the equitable adoption of electric vehicles to reach its goal of 30% of vehicles being electric by 2030. CASR then conducted a [Community-Based Needs Assessment](#) in the Montbello neighborhood involving interviews with multiple community-based organizations, community leaders, representatives and advocates. This outreach allowed CASR to understand the community's mobility needs, identify barriers to deployment and propose potential electrified mobility solutions.

Denver also has established goals to reduce driving by increasing those who use transit, bike, walk, carpool and telework to 50% of workers by 2030, while eliminating traffic fatalities and serious injuries.

These goals and how the city plans to achieve them are laid out in the [Mayor's Mobility Action Plan](#), as well as plans specific to [walking](#), [biking](#) and [transit](#).

Metrics

With the establishment of any new program, data collection is critical and often requires engagement with stakeholders to understand what data are available. The metrics below are those that have been initially identified for tracking. Over time, CASR will evaluate which metrics are the most meaningful, moveable and measurable, and set targets to ensure progress toward goals.

- Reduction in transportation GHG emissions
- Increase in utilization of public transportation
- Reduction in vehicle miles traveled
- Percent increase in electric vehicle adoption
- Electric miles driven as a percentage of total miles
- Reduction in transportation cost burden in under-resourced communities

Investment Strategy and Criteria

The following table lays out the categories of investments planned for sustainable transportation over the next five years and provides a brief description of each. These programs will reduce vehicle travel and convert travel to lower or zero-emission modes. The early years feature pilot projects and initial investments that can scale up over time if they are successful. Future programs will become more focused and refined based on additional community feedback. All investments will be assessed based on two main criteria: the potential for GHG emission reductions over the life of the project and how the project or policy improves equity for under-resourced communities in Denver. Improvements in equity will be measured by improved mobility, reduced transportation cost and the building of community capacity.

Table 3: Climate Protection Fund Planned Sustainable Transportation Investments

E-bikes	
E-bike pilots*	Support the deployment of electric bikes (e-bikes) in innovative ways, such as e-bike libraries and e-bikes for delivery services
E-bike incentives	Provide rebates to Denver residents for the purchase of e-bikes
Electric Vehicles	
Expand electric carshare	Scale up existing electric carshare to reach more Denver communities
Support EV charging at affordable housing	Work with DHA and other affordable housing providers to ensure residents have access to charging at their residences
Funding for public charging	Support for city and private sector projects that deploy charging, including electrified mobility hubs, Right of Way (ROW) charging and community charging locations
Transit and Multi-modal	
Electrified micro-transit*	Partner with Denver's Department of Transportation and Infrastructure (DOTI) to fund the electrified portion of a neighborhood micro-transit service
Electrified mobility in under-resourced communities*	Following a Community-Based Needs Assessment, deploy an electric shuttle and e-bike library in the Montbello neighborhood
Improve access to transit	Work with transit providers to provide more convenient, affordable and electrified transit options
Reduce vehicle trips through multi-modal options	Promote walking, biking and transit options
Improve mobility by reallocating public space to active transportation modes	Increase the convenience and comfort of active transportation modes
Supportive Programs	
Community engagement	Conduct outreach to the Denver community to better understand mobility needs and how CPF funding can improve mobility
Education and outreach	Provide Denver residents with information to support mobility options

*These projects were funded in 2021

Early Investment Example

The first transportation project funded by the CPF in April 2021 was a pilot project to support the deployment of e-bike libraries for essential workers in under-resourced communities. A total of \$225,000 was invested in two organizations, Northeast Transportation Connections and Denver West Transportation Management Association, to deploy 70 e-bikes in the Globeville, Elyria-Swansea and Sun Valley neighborhoods.

This project meets the criteria of reducing GHG emissions from the transportation sector by shifting trips from gasoline vehicles to highly efficient e-bikes and is estimated to reduce GHG emissions by 540 tons over an expected five-year project lifetime. This investment also contributes to the equity goal because it provides a free, community-based mobility option in four of Denver's NEST neighborhoods and supports the work of community-based organizations.





Buildings & Homes

Upgrade the energy efficiency of homes, offices and industry to reduce their carbon footprint, utility bills and indoor air pollution

Buildings and homes are responsible for 64% of the greenhouse gas emissions in Denver. These places where we live, work and spend 90% of our time are the key to a sustainable, resilient future for the city. CASR is working toward making all new and existing buildings and homes net zero energy, more sustainable and more resilient. Net zero means highly efficient, all-electric, grid-flexible and powered by 100% renewable electricity. We work with the Denver community to achieve these goals in ways that improve indoor air quality, improve comfort, improve health outcomes, lower energy costs, improve returns for investors, improve equity and help under-resourced communities thrive.

Outcomes

1. GHG Reductions. Net zero energy buildings and homes reduce GHG emissions through energy efficiency, solar power, efficient electric heating and water heating equipment.
2. Equity. All-electric buildings and homes have improved safety and indoor air quality.
3. Utility Bill Savings. Net zero energy buildings can reduce energy bills.
4. Workforce. Investment in net zero energy buildings creates jobs and training opportunities.
5. Resiliency. Ensuring that all residents have access to renewable heating and cooling is an important resiliency strategy. In addition, ensuring that buildings are demand-flexible will provide greater resiliency to the grid and allow for the management of peak loads.

Goals and Plans

All investments under this allowable use will be aligned with Denver's Net Zero Energy New Buildings & Homes Plan, Green Buildings Ordinance, Benchmarking Ordinance, Renewable Heating and Cooling Plan for existing buildings, and Energize Denver Task Force recommendations, as well as Denver's Climate Action Plan and the Climate Action Task Force Recommendations.

Metrics

With the establishment of any new program, data collection is critical and often requires engagement with stakeholders to understand what data are available. The metrics below are those that have been initially identified for tracking. Over time, CASR will evaluate which metrics are the most meaningful, moveable and measurable and set targets to ensure progress toward goals.

- GHG Emission Reductions:
 - o Cumulative total emissions reductions over the life of the strategy or over the life of the policy enabled by the strategy. Progress will be measured for every strategy in terms of total GHG reductions, as well as how far it moves the city toward our goals of achieving net zero energy in new buildings and homes by 2030 and existing buildings and homes by 2040.
- Equity: Investments will be assessed on how the strategy provides benefits to and/or mitigates unintended consequences of climate solutions for people of color and under-resourced communities. This will be measured through:
 - o Reductions in energy burden
 - o Improvements in safety with reduced exposure to carbon monoxide and other indoor air pollutants
- Utility Bill Savings
 - o Energy savings over the life of the project
- Workforce:
 - o Portion of contract value for women- and minority-owned businesses, and firms that utilize labor standards, such as a skilled and trained workforce from certifications or apprenticeship programs, benefits such as health care, retirement and wage standards, best value/responsible contracting, or regional targeted and local hire requirements
 - o Number of direct and indirect jobs created by the project
- Resilience & Adaptation: Degree to which the strategy addresses key climate risks faced by Denverites, including extreme heat and poor air quality.
 - o Increased access to electric cooling
 - o Improvements in indoor air quality

Investment Strategy and Criteria

The Climate Action Task Force estimates that it would cost nearly \$600 million to get Denver’s buildings and homes to net zero by 2040. Clearly, Denver cannot pay its way out of this climate crisis through CPF investments in projects alone. The investment strategy for buildings and homes will promote a combination of physical projects that reduce GHG emissions and the development of policies that will fundamentally change the way buildings and homes are designed, constructed and maintained. These policies will result in more emissions reductions and avoidance than the projects that can be funded with the amount of CPF funds available each year.

The following chart shows the timing for projected planned investments over the next five years. The investments shown in blue are anticipated to have a medium impact on emissions reductions because they are limited to a small portion of all the buildings and homes in Denver. The investments shown in green support compliance with policies that are projected to have a high impact on emissions reductions in buildings. These policies will change how new buildings are designed and how existing buildings are managed to collectively achieve net zero emissions by 2040.

Figure 8: Buildings and Homes Planned Improvements

2021	2022	2023	2024	2025
Steam to Electric Conversion Program				
Low Income Home and Building Electrification Pilot				
Workforce Training - outreach and pipeline development focused on under resourced communities and upskilling current workers				
Code Enforcement – Support positions in Community Planning and Development for plan review and inspections for the IECC, Denver Green Code, and the Green Buildings Ordinance				
	New building resources to support NZE new developments becoming standard practice and enable a NZE code			
	Electrification schematic design incentives for easy to electrify systems			
	Electrification pilot programs and demonstration projects for easy to electrify systems			
		Incentives to drive early action for easy to electrify systems		
		Electrification schematic design incentives for harder to electrify systems		
		Electrification pilot programs and demonstration projects for harder to electrify systems		
		Incentives to electrify low income and market rate homes while providing cooling and improved indoor air quality		
		Other GHG emission reduction, equity, workforce or resiliency strategies in buildings		
			Incentives to drive early action for harder to electrify systems in buildings	
				Incentives to ensure cost parity for under resourced buildings for systems required to electrify

Early Investment Example: Healthy Affordable Home Electrification Program

This program will provide electrification upgrades, energy efficiency services, weatherization upgrades and resident education for targeted residential homes located in the City and County of Denver. The initiative will be co-led by a local health care partner to ensure that under-resourced families living with chronic respiratory conditions are identified and prioritized as the program recipients. The projects implemented in each home will also carry significant co-benefits: stabilizing long-term costs for tenants and homeowners, providing climate resiliency through the addition (or supplementation) of air conditioning, creating local jobs, training the workforce on heat pump technology and understanding the benefits of induction cooking.

Administration and Finance

Expanded staffing is essential to implement this plan for the CPF. In August 2021, CASR hired a green workforce liaison, its first position funded by the CPF. At the time of this publication, plans are underway to hire positions focused on adaptation and resiliency, building decarbonization incentive programs and electrified mobility programs. Additional staffing in all areas will be needed beyond these initial planned hires.

CASR's approach to its mission is steeped in collaboration. Without the participation of the large and influential implementing agencies, such as Denver Parks & Recreation (DPR), Department of Transportation and Infrastructure (DOTI), Community Planning and Development (CPD) and the Department of General Services (GS), CASR's mission cannot be fulfilled. CASR has identified a benefit in providing short-term seed funding for positions in other agencies in order to expand not only the work CASR is able to implement now, but also to ensure the permanent saturation of climate action within the organizational infrastructure of the City and County of Denver.

Table 4: 2021 Climate Protection Fund Planned Staff Investments

Position	Allowable Use	Agency	Function
Electrified Mobility Administrator	Sustainable Transportation	CASR	Implement sustainable mobility programs
Green Workforce Liaison	Workforce	CASR	Develop and manage workforce programs
Adaptation and Resiliency Principal Planner	Adaptation & Resiliency	CASR	Lead development of an adaptation and resiliency plan; develop and manage adaptation and resiliency programs
Building Decarbonization Incentives Administrator	Buildings & Homes	CASR	Develop and implement financial incentives to decarbonize Denver's buildings and homes
Denver Green Code Plan Review	Buildings & Homes	CPD	Increase capacity for private sector project reviews under the Denver Green Code
International Energy Conservation Code Plan Review	Buildings & Homes	CPD	Increase capacity for private sector project reviews under the energy code
Green Building Ordinance Inspector	Buildings & Homes	CPD	Increase capacity for Green Building Ordinance compliance management
International Energy Conservation Code Inspector	Buildings & Homes	CPD	Increase capacity for energy code compliance management

CASR anticipates that more opportunities to create staff positions within CASR and in other agencies will emerge as the CPF evolves.

Funding for positions in City and County of Denver agencies other than CASR will be temporary, with a maximum commitment of no more than five years. Service Level Agreements will be established between CASR and the receiving agency outlining the funding commitment terms, including but not limited to a description of the functions of the position(s) being funded, the year in which the receiving agency must first request an expansion of its own budget to support the position and the year in which the CPF's funding will terminate. Extensions beyond five years (60 calendar months from the date on which funding begins) will not be granted. Additionally, deviations from the agreed-upon scope outlined in the agency agreement(s) during the five-year CPF funding period will void the agreement and forfeit the remaining funding.

Financial Management and Planning

This fund and CASR's work are new for the city. CASR was created July 1, 2020, the voters approved ballot measure 2A on November 3, 2020, and the originating ordinance required that this visionary plan be submitted by November 3, 2021. Co-creation with community members, capacity building for community-based organizations, internal capacity building for CASR, fostering innovation, aligning with science and being responsive to community needs have been the short-term focal points in CASR's approach to the development of this five-year plan for the CPF.

Table 5: Climate Protection Fund Development Timeline

7/1/2020	CASR becomes an agency in city code
11/3/2020	Ballot Initiative 2A approved by nearly 65% of Denver voters
November 2020	Drafting allowable use criteria begins
December 2020	CASR-DEDO green workforce strategy partnership launches
	Ordinance 20201413 establishes new Special Revenue Fund Series for the Climate Protection Fund
January 2021	Project concept development begins
March 2021	Focus on meetings with external stakeholders and advocates; assess legal requirements of Special Revenue Funds
April 2021	Sustainability Advisory Council committee meetings begin
	CPF announces first investment: E-Bike Libraries for Essential Workers
	Informational session for non-profits
	Revenue report: \$5,108,036 collected in 1st quarter
May 2021	RFPs issued: E-bikes for delivery services, Montbello Electrified Mobility
June 2021	First CCD project commitments confirmed: Montbello Connector, 10 Community Solar installations, behind-the-meter solar on CCD facilities, seed funding for energy code staff in Community Planning & Development
	RFP issued: Montbello Electrified Mobility
July 2021	Steam to Electric Conversion incentive program launched
	Revenue report: \$9,951,663 collected in 2nd quarter
August 2021	RFP issued: Workforce Development for Good Green Jobs
	First CPF-funded employee: Green Workforce Liaison
September 21	Five-Year Plan draft reviewed by stakeholders
October 21	Revenue report: \$7,196,294 collected in 3rd quarter
11/3/2021	CASR submits CPF Five Year Plan to the Mayor, City Council, and the Sustainability Advisory Council

This section describes the technical processes CASR was required to follow to establish the fund in the city budget, the revenue projections for the duration of this plan and the estimated expenditures to meet the fund's priorities of climate change mitigation, adaptation and resilience and achieving the goal of investing 50% of the fund for the direct benefit of the people and communities most harmed by climate change.

ESTABLISHMENT OF THE FUND

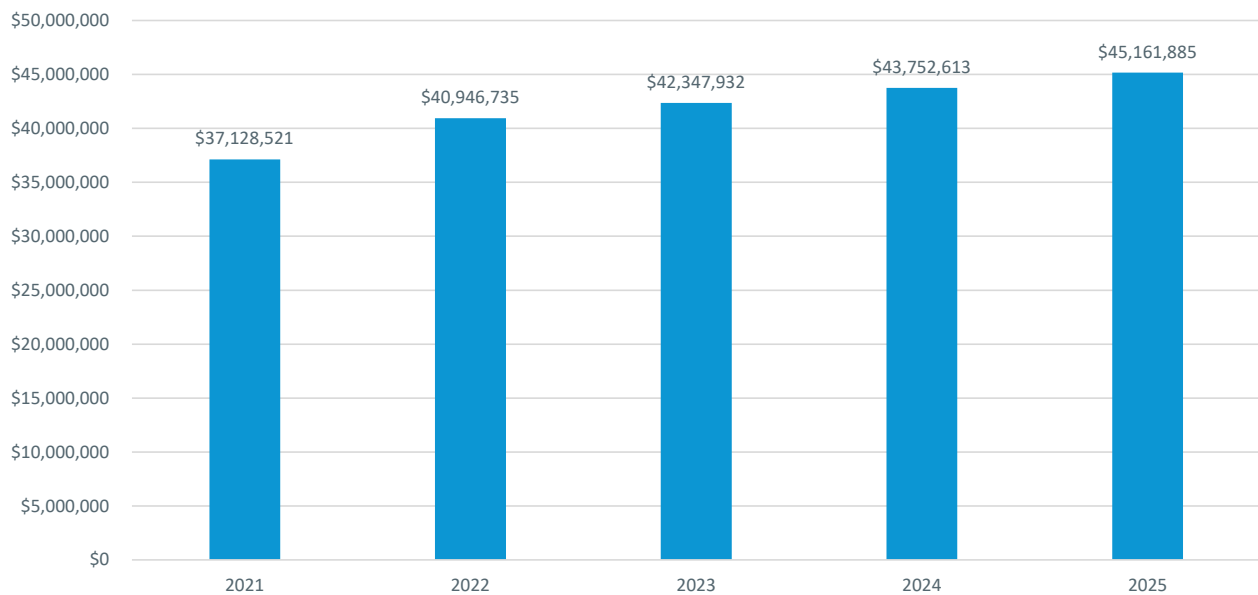
The financial mechanism for the CPF was established in early 2021 following the November 2020 voter mandate. As with any startup fund, the accounting and budget infrastructure is established first. Due to the COVID-19 pandemic and its impact on the economy and sales tax revenue, projections in early 2021 were uncertain and dependent upon the pace of economic recovery. CASR worked with the Department of Finance (DOF) to understand when and how spending could begin based on revenues and cash flow.

REVENUE

CPF revenue projections are provided by DOF. Although the sales tax is susceptible to economic fluctuations, the 0.25% sales tax revenue is projected to provide approximately \$40 million to the fund annually. As a non-lapsing special revenue fund, the fund balance accrues and remains available for spending on allowable uses.

Figure 9: 2021-2025 Climate Protection Fund Projected Revenue

CPF Revenue Projection



Commitments and Expenditures

As of the time of this publication, the CPF has issued \$7.5 million dollars-worth of contracts with external partners and agreements with fellow agencies and has an additional \$30 million in contract value pending in a series of RFPs and incentive program applications going through the city's review process. These RFPs and program applications have been drafted by CASR, but before they can be issued, reviews are required by the Division of Small Business Opportunity (DSBO), City Attorney's Office (CAO) and, at times, other agencies such as the Auditor's Office and Risk. CASR meets weekly with CAO to monitor the progress of these reviews, and they will each be issued as quickly as possible once the reviews are complete.

Table 6 provides a summary of the CPF commitments to date at the time of publication. Each project's contribution toward equity is determined by several factors, primarily the location where the project is based (i.e., a NEST community) and the people being served. A small contribution toward equity is granted to investments with a high GHG reduction value as these collective actions protect Denver residents and build the city's resiliency against climate change impacts. The only administrative cost to date was the production of this plan document, and no contribution toward equity was assigned for that expenditure.

Table 6: 2021 Climate Protection Fund Commitments ¹¹

PROJECT NAME	CONTRACTED PARTNER OR AGENCY	CONTRACT AMOUNT	PERCENT TOWARD EQUITY	EQUITY VALUE (\$)
E-Cargo Delivery Bikes	Contract pending	\$124,800	50%	\$62,400
E-Cargo Delivery Bikes	Denver Food Rescue	\$145,050	100%	\$145,050
E-Cargo Delivery Bikes	Bicycle CO	\$149,318	50%	\$74,659
Steam to Electric Conversion Incentive Program	Contract pending	\$923,203	100%	\$923,203
Montbello E-Mobility	Contract pending	\$400,000	100%	\$400,000
E-Bike Libraries for Essential Workers	Northeast Transportation Connections	\$100,000	100%	\$100,000
E-Bike Libraries for Essential Workers	West Corridor TMA	\$125,239	100%	\$125,239
Workforce Development for Good Green Jobs	Multiple contracts pending	\$2,700,000	100%	\$2,700,000
Solar Co-Op Low-Income Incentive Program	Solar United Neighbors	\$390,000	100%	\$390,000
Montbello Connector EV	DOTI	\$154,000	100%	\$154,000
Building Performance Staff	CPD	\$2,256,947	5%	\$112,847
CPF Creative Services	GroundFloor Media	\$44,176	0%	\$0
Totals		\$7,512,733	69%	\$5,187,398

¹¹ Table 6 does not include permanent staff in the process of being hired by CASR at the time of publication.

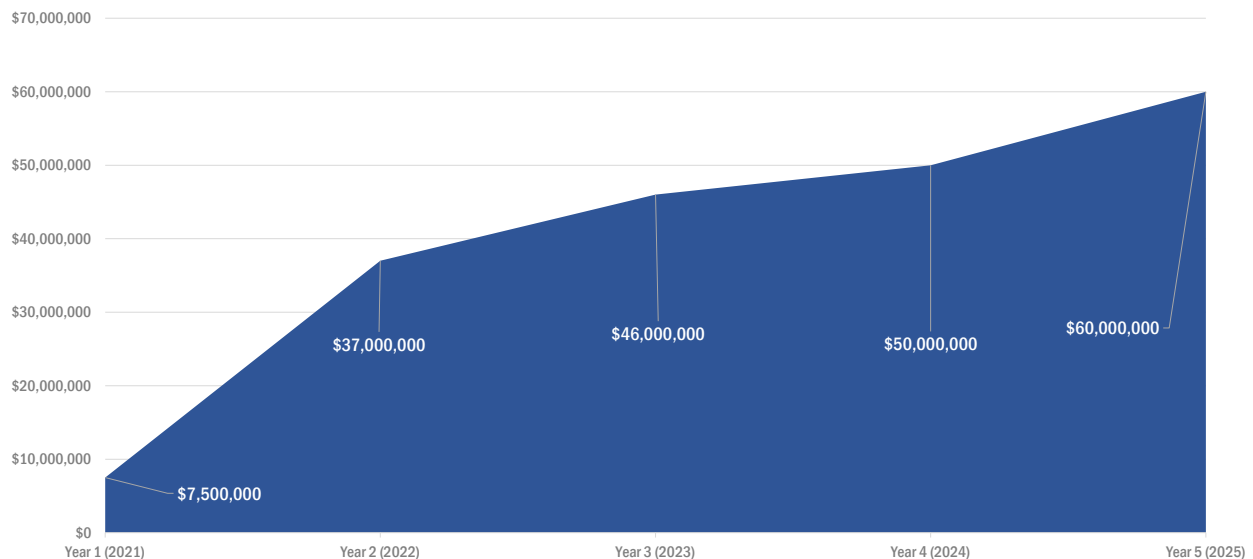
The five-year expenditure estimate graph (Figure 10) highlights the nature of establishing and implementing completely new programs. In addition to the creation of the operating and capital budget mechanics and processes needed to expend funds, the inter-departmental and community infrastructure needs to be fostered, aligned and coordinated to achieve the desired outcomes. The anticipated expenditures increase per year over the period, ultimately resulting in achieving the goal of investing the full \$200 million over the five-year period.

From January through April of 2021 CASR focused on establishing the technical aspects of the fund, initiating the community engagement process to develop this five-year plan and pursuing “shovel-ready” funding opportunities, as described in the Early Investment Examples in each Allowable Uses section.

Beginning in May of 2021, CASR began the process of issuing Requests for Proposals (RFPs) for larger and longer-term projects and programs, requiring review and collaboration with other agencies, including the CAO, CPD, DOTI, DSBO and Workforce Services in DEDO. By the end of 2021, CASR expects to have committed at least \$15 million to new projects, programs and staff through the CPF.

Figure 10: 2021-2025 Climate Protection Fund Projected Annual Expenditures ¹²

Estimated Expenditure Totals by Year (years 1 - 5)



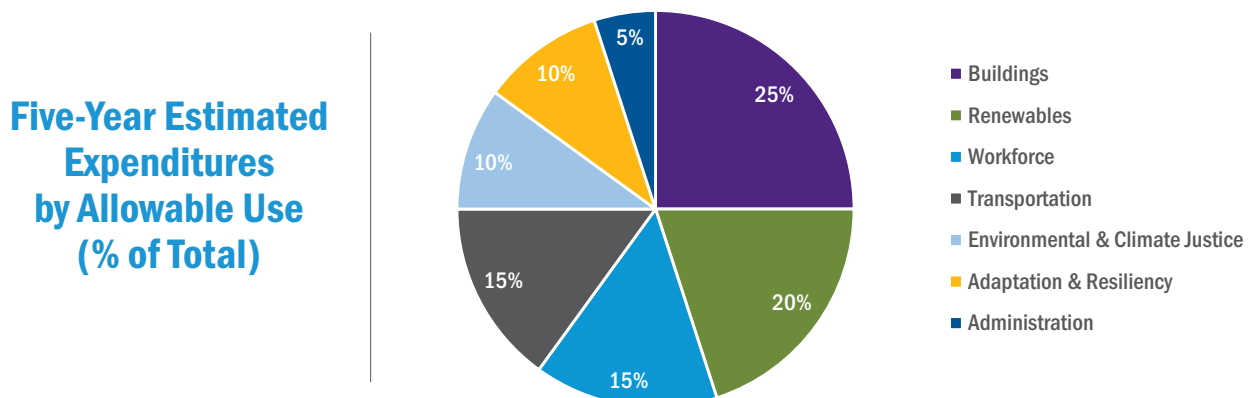
¹² The figure shown for 2021 is current as of the date of publication, 11/03/2021

ALLOWABLE USES

The CPF has six allowable uses as defined by the ordinance. Expending the funds across these uses is informed by the cost-benefit analysis of a program or project as it relates to meeting climate action and equity goals, as well as stakeholder input. There will be many cases where the outcomes of a single program or project will overlap between allowable uses, providing benefits in multiple categories. For example, projects in energy efficiency or solar power will likely have measurable workforce development and adaptation benefits. Using the first year of CPF investments, a consistent and transparent methodology for allocating the benefits of projects across categories will be developed and articulated in each annual report.

Over the five-year period from 2021 through 2025, CASR estimates that the CPF will be allocated as shown in Figure 2. The following chart estimates the percent of CPF investments that may be allocated to each allowable use. As noted earlier in this plan, the majority of the funding in this first five-year period will likely be directed toward projects that have a high impact on GHG emissions reductions, but as shown in Figure 2, significant funding will also be directed toward enhancing workforce opportunities and engaging the community in adaptation and resiliency work, as well as the pursuit of environmental and climate justice. The chart does not capture the overlap of outcomes that a single project may have across the allowable uses.

Figure 2 (Repeated): 2021-2025 Climate Protection Fund Estimated Expenditures per Allowable Use



EQUITY GOAL

The CPF ordinance states that the fund is to “endeavor” to invest 50% of dedicated funds in the community with a strong lens toward equity, race and social justice over the life of the fund. CASR embraces that ideal and will strive to meet or exceed that goal on an annual basis. This will be measured and reported on in the CPF annual report to assure transparency and accountability. Due to the allowance for “catalytic” projects and the emphasis on funding infrastructure projects to reduce emissions in the early years, there may be individual years when the 50% equity goal is not met, however, the forecast at the time of this publication fully anticipates meeting or exceeding the 50% goal by the end of this five-year period. Each annual report will provide both the annual and cumulative equity contributions.

ADMINISTRATIVE COSTS

Administrative costs under the CPF are capped at 8% per year to assure the monies go directly to the implementation of programs and projects that deliver on the goals of the fund. Examples of administrative costs include financial management and accounting staff and services, graphic design for the annual report and other essential staffing and professional services related to the fund administration. Staffing that provides a service or benefit to the community under one of the allowable use categories does not count toward the administrative cap.

FUND BUDGETING AND DISBURSEMENT PROCESS

Budgeting the CPF

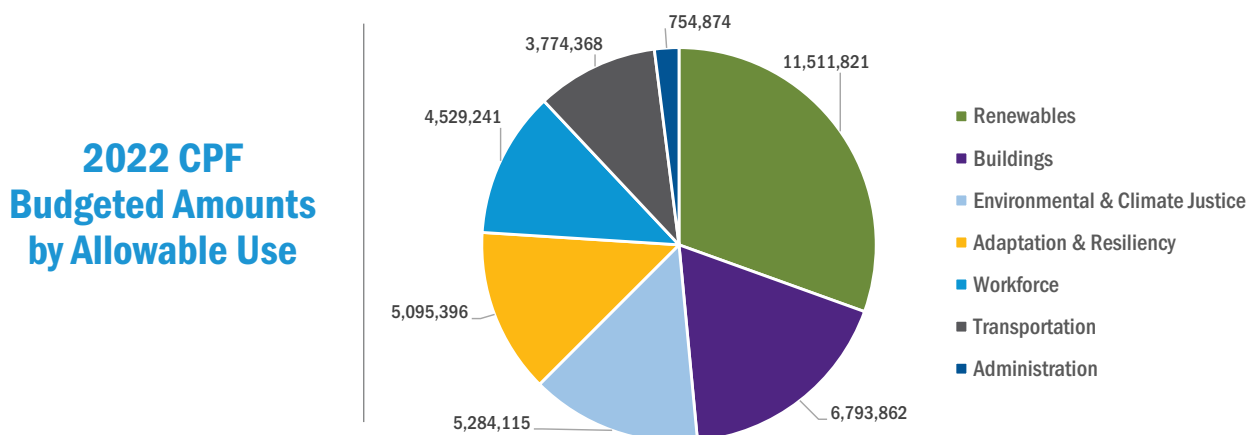
The CPF is categorized in the municipal budget as a General Government Special Revenue Fund (SRF). Other SRFs include the Parks Legacy Fund, the Healthy Food for Denver Kids Fund and the Homeless Resolution Fund. Once created, these revenue streams become part of the Mayor's annual budget but, unlike the General Fund, these dollars are restricted to the allowable uses outlined in the ordinances that created each fund and approved by the voters.

In the city's routine annual budgeting cycle, the anticipated expenditures of the CPF are outlined in CASR's budget narrative by allowable use. That estimate, presented in the "budget book" every September, is a high-level overview of the spending plan for the year ahead. It does not include any balance remaining from prior years and only looks ahead to the planned spending of the anticipated revenue for the following year. The CPF allocation as it appears in CASR's 2022 line item budget does not list each allowable use. This is because standard CCD budget line items are categories such as Personnel, Professional Services, Office Supplies and Equipment.

2022 Anticipated Expenditures by Allowable Use

In the City's 2022 budget book, initiatives and investment amounts were submitted as preliminary and subject to change pending finalizing this five-year plan. Recognizing the importance of incorporating the interests of stakeholders and community in devising spending plans, estimates were incorporated in the budget for the CPF. As presented in the budget book, CASR expects the CPF dollars to be allocated as shown in Figure 3.

Figure 3 (Repeated): 2022 Climate Protection Fund Estimated Allocation per Allowable Use





The following are descriptions for each estimate as presented in the Budget Book.

- Job creation - Invest \$4,529,200 in programs that address workforce recruitment, barrier reduction, up-skilling and reskilling in support of Denver's climate goals.
- Renewable Energy - Invest \$11,511,800 in projects such as solar carports projects to create zero-emissions energy, provide EV charging stations and subsidized community solar subscriptions for low-income households and ESCO capital lease payments to further reduce CCD's carbon footprint by bringing solar to Denver facilities. Appropriation of funds to start capital projects may start in 2021 and may involve transfers from the CPF to the CIP and are not yet reflected in the 2022 tables.
- Environmental and climate justice - Invest \$5,284,100 in promotora-style programs in multiple NEST neighborhoods, conduct community outreach to co-create an investment plan, and conduct Community-Based Needs Assessments with community organizations.
- Adaptation and resiliency - Invest \$5,095,396 in projects that increase access to cooling and green space, improve infrastructure and reduce vulnerability to flooding, specifically to benefit disproportionately impacted communities; and produce a cost-benefit analysis of cost avoidance for climate impacts.
- Affordable, clean, safe and reliable transportation - Invest \$3,774,400 to expand EV car share in underserved communities, EV charging stations, e-bikes for essential workers, e-cargo bikes to reduce reliance on fossil-fueled vehicles, micro-transit and other neighborhood-based transportation electrification programs.
- Energy efficient homes, offices and industry - Invest \$6,793,900 in the steam to electric incentive program; fund work in electrification for affordable housing and incentives geared toward residential energy efficiency.
- Administration - Costs incurred by the city associated directly with the administration of the funds not to exceed eight (8)% of the amount of revenue received in the fund in that year. In 2022, CASR anticipates spending approximately \$754,900 (just under 2%) on administration.

The CPF allocation in CASR's budget as it appears in the CCD Budget Book is different from the annual report that the CPF will produce by June 30 of every year. That report will provide a detailed record of the actual fund disbursement that occurred in the prior year and, as noted in the Allowable Uses statement above, will describe how annual disbursements are allocated across the allowable uses.

Expending Funds

CASR must adhere to all legal, procurement and fiscal requirements when issuing solicitations, such as Requests for Proposals (RFPs), executing contracts and making expenditures, including in the use of the CPF. These requirements include, but are not limited to, [Executive Order 8](#), [Executive Order 101](#) and [Fiscal Accountability Rule 8.1](#). While requirements can and do change over time, some of the current requirements in these policies include:

- One-time purchase of a good, sponsorship, membership, conference registration or similar is limited to a maximum of \$2,000.
- For one-time purchases under \$10,000, it is best practice to solicit at least three quotes if more than one vendor is known prior to making a decision. Purchase Orders (POs) are a type of contract when the value is under \$10,000.
- For projects in value above \$10,000 and below \$100,000, agencies are required to solicit quotes from at least three vendors. If at least three vendors are not known, it is recommended that the solicitation be posted publicly. Contracts between the agency and selected vendors are required.
- All contracts \$100,000 and over shall use “formal advertisement by official publication.” CASR currently utilizes BidNet® to ensure transparency and equal access to the opportunity.
- Procurement rules allow vendors to be selected by Sole Source or Professional Preference without a competitive solicitation process, but this must be reviewed and approved by the agency director and City Attorney’s Office in every case and should be used sparingly.
 - o Sole Source: Supplies or services indispensable to the City which are obtainable, for practical purposes, from only one (1) single source; typically, a manufacturer of proprietary equipment.
 - o Professional Preference: Supplies, equipment or services required by reason of preferences based on professional advice. A “professional” shall be defined as a person(s) who is uniquely knowledgeable and technically qualified in the supply, equipment or service to be provided due to an ongoing day-to-day familiarity with the supply, equipment or service to be provided and because of professional qualifications such as a degree or professional certification related thereto (Agency makes a recommendation based on professional knowledge or experience.)
- Executive Order 101 establishes strategies for the City to use diversity and inclusiveness to promote economic development and to encourage more businesses to compete for contracts and procurements awarded by the City. Additionally, all RFPs and application-based programs must be reviewed by the Division of Small Business Opportunity, prior to issuance, to determine if Minority/Women Business Enterprise (MWBE) contracting requirements are applicable.
- All RFPs and application-based programs must be reviewed by the City Attorney’s Office, prior to issuance, to determine which federal, state and local legal requirements are applicable. Other agencies, such as Risk and the Auditor’s Office, may also review.
- CASR is unable to fund unsolicited proposals.

Interdepartmental Expenditures

CASR may utilize CPF budget to provide a “funds transfer” to other city agencies to support projects and programs that meet the allowable use criteria. In this case, the partner agency is also required to follow all applicable legal, procurement and fiscal rules. Two examples of CPF commitments to city projects from 2021 are:

- Montbello Connector: The CPF funded one electric vehicle in this program managed by DOTI.
- Solar on city buildings: The CPF committed to funding behind-the-meter solar array installations on six city buildings, a project managed by General Services.

Before authorizing the transfer of funds, CASR and the receiving agency develop a Service Level Agreement to outline the activities, services, materials, or staff the fund is paying for and for how long. The agreement is signed by the executive directors of both agencies.

Supporting External Programs

It is clear from the ballot language and the legislative intent of the CPF ordinance, that the fund can and should be used to support projects and programs led by organizations and businesses external to CCD, not only for CCD projects. Accordingly, at the time of this plan’s publication as shown in Table 6, CASR had issued multiple Requests for Proposals (RFPs) and one incentive program application.




Conclusion

The creation of the Climate Protection Fund presents an incredible opportunity for Denver and comes at a critical time for humanity. The most recent report from the Intergovernmental Panel on Climate Change made it clear: if the collective nations of the world do not immediately curtail the production of greenhouse gas emissions, the catastrophic climate-fueled disasters of recent years will not only continue but will escalate. The effects of a warming planet are already being felt in our city and around the world. From increases in wildfires and droughts to the spread of disease to worsening air quality, the evidence clearly shows that climate change is having a broad-reaching impact on our daily lives. Cities generate more than 70% of global greenhouse gas emissions, making us a key part of the climate solution.

“Saving our planet, lifting people out of poverty, advancing economic growth... these are one and the same fight. We must connect the dots between climate change, water scarcity, energy shortages, global health, food security and women’s empowerment. Solutions to one problem must be solutions for all.”

— Ban Ki-moon, former Secretary General of the United Nations



The people of Denver understand that we must take responsibility for our contribution to the global climate crisis, and they put their dollars and trust in the Office of Climate Action, Sustainability and Resiliency to answer the call. We acknowledge the gravity of this role and will steward these funds in this first five-year period to drive outcomes that reduce greenhouse gas emissions and improve the quality of life for all Denverites, with an intentional focus on the people and communities most harmed by climate change: people of color and Indigenous people, those with low-income, people with chronic health conditions, babies, children and older adults.

Denver is only the second city in the nation to have a taxpayer-supported fund focused solely on climate action. We intend to serve as a model for other cities to replicate this effort. The majority of U.S. residents live in cities, therefore, these beacons of innovation are best positioned to reduce our nation's climate impact. We close this plan with gratitude to the hundreds of stakeholders who shared their insight, stories and expertise; to the elected officials who shared the unique needs and hopes of their communities and hold us accountable, to Mayor Hancock, whose leadership resulted in the creation of this agency and whose support for our work is unyielding; and to the people of Denver, who have entrusted us with this important and immense responsibility. We hear you, we appreciate your partnership and with your support, we know this fund will have the impact you intended for generations to come.

