

City of Albuquerque



ALBUQUERQUE METROPOLITAN STATISTICAL AREA

PRIORITY CLIMATE ACTION PLAN

PREPARED FOR US ENVIRONMENTAL PROTECTION AGENCY IN ACCORDANCE WITH THE CLIMATE POLLUTION REDUCTION GRANTS PLANNING PROGRAM



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LETTER FROM MAYOR KELLER

For the last several years, Albuquerque has seen hotter than average summers, prolonged drought, and severe wildland fires that impact air and water quality. These are the effects of a changing climate. To combat this new normal, the City is making a One Albuquerque effort to reduce climate pollution, increase resiliency, and improve quality of life for the families who call Albuquerque home.

One such action is the Climate Pollution Reduction Grant (CPRG). In 2023, the City of Albuquerque was awarded Phase 1 of the CPRG. This initial funding enables the City to leverage our history of sustainability and community engagement work to create a comprehensive Climate Action Plan for the Albuquerque Metropolitan Statistical Area (MSA). Funded through the U.S. Environmental Protection Agency (EPA), this program seeks to address the needs of frontline communities and ensure significant climate pollution reduction that does not leave anyone behind.

CPRG gives us the opportunity to collaborate with community partners, pueblos and other tribes, and state, regional, and local governments to find creative solutions to make continuous progress towards our collective sustainability goals. During the 4-year timeframe of the planning grant, the City will:



- ✓ Hire a full time CPRG Manager.
- ✓ Execute two contracts for environmental and public engagement consultants.
- ✓ Submit the Priority Climate Action Plan.
- ✓ Hold public meetings to promote community engagement and feedback.
- ✓ Complete a new greenhouse gas inventory that includes the entire MSA.
- ✓ Submit the Comprehensive Climate Action Plan.
- ✓ Track and report progress to the EPA.

Fighting climate change is an ever-evolving landscape, and we recognize that our goals cannot be achieved alone. The City of Albuquerque is happy to facilitate this important work in our MSA and bring partners together to carry out the mission. We bring institutional knowledge and an impressive track record of nationally and internationally recognized climate action and are ready to bring everyone on board. My hope is that you feel connected and informed about the sustainability work of your local government, and see what is possible for institutions to accomplish with the support of the community. We are grateful to the EPA, our grant partners, and members of our community who will be a crucial part of the planning process and the engagement sessions to follow – your input has been, and will continue to be essential. We look forward to the work to come as we continue to make this a safe, resilient place for families to thrive.

A handwritten signature in black ink that reads "Timothy Keller". The signature is written in a cursive, flowing style with a long horizontal line extending to the right.

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EXECUTIVE SUMMARY

Issues of climate and sustainability are central to the livelihoods of all Americans, and urban centers have a vital role to play in addressing the climate crisis. To effectively adapt and mitigate the changes we are already seeing, governments, industry, and community members recognize the need for coordinated planning that center the needs of frontline communities—those who are affected “first and worst” by the climate crisis. This Priority Climate Action Plan (PCAP) is the first step in a multi-year initiative towards transformative planning for the **Albuquerque Metropolitan Statistical Area (MSA) - which includes the City of Albuquerque and Bernalillo, Sandoval, Torrance, and Valencia County**. Funded and directed by the U.S. Environmental Protection Agency’s (EPA) Climate Pollution Reduction Grant (CPRG) Planning Program, this report sets out to identify an initial list of high-priority, near-term, regional projects that both tackle climate pollution and benefit the needs of frontline communities.¹

This Albuquerque MSA PCAP builds off of the important work done in the City of Albuquerque’s 2021 Climate Action Plan (CAP),² the 2020 Greenhouse Gas (GHG) Inventory,³ Albuquerque Justice 40 Oversight Coordinating Committee (J40 OCC),⁴ the Single Space Strategies Draft CPRG Plan⁵ and CPRG Working Group⁶ engagement to present an initial list of regional near-term [measures](#) to address climate pollution to assist our frontline communities. Guided by the EPA’s priorities, this PCAP is organized into the following sections:

- **Introduction**
- **Frontline Community Analysis**
- **Greenhouse Gas Inventory**
- **Community Priorities & Projects by Sector**
- **Conclusion**
- **Appendices**

¹ EPA uses the term Low-Income Disadvantaged Community (LIDAC) instead of frontline community. In this document, those terms are used interchangeably. The City of Albuquerque understands that these terms do not have the same meaning to all communities. To honor past community engagement, this report will use the term frontline communities in lieu of the term LIDAC.

² “2021 Climate Action Plan,” City of Albuquerque, 2021, <https://www.cabq.gov/sustainability/documents/2021-climate-action-plan.pdf>.

³ “Greenhouse Gas Inventory,” City of Albuquerque, 2020, <https://www.cabq.gov/sustainability/documents/city-of-albuquerque-ghg-inventory-3.pdf>.

⁴ The Albuquerque J40 OCC is a committee of legacy environmental justice leaders who provide guidance, support, and feedback to City staff to ensure Justice40 criteria are being met.

⁵ City of Albuquerque Climate Pollution Reduction Grant Draft Implementation Plan,” Single Space Strategies. October 31, 2023.

https://www.cabq.gov/sustainability/documents/msa-cprg-draft-pcap-plan_singlespacestrategies.pdf

⁶ The CPRG Working Group consists of government staff across the City and the Counties, who have been actively working to identify and implement projects that meet the CPRG criteria.

This document introduces measures submitted to the City of Albuquerque in five main categories that are quickly implementable and work in concert to provide regional greenhouse gas reductions and community benefits. The categories and list of measures are provided in the table on the next page.



OVERVIEW OF MEASURES IN THIS PCAP

STRATEGY	IMPLEMENTATION ACTIONS
<i>Sustainable Buildings (SB)</i>	SB1: Community Energy Efficiency SB2: Multi-Family Decarbonization SB3: Community Center Efficiency & Education SB4: Los Poblanos Open Space
<i>Renewable Energy (RE)</i>	RE1: College Solar Canopies
<i>Clean Transportation (CT)</i>	CT1: Transit-Oriented Development CT2: Bicycle Safety Corridors CT3: Multimodal Rail Trail CT4: Juan Tabo Connectivity Trail CT5: Transit Electric Vehicles CT6: Municipal Fleet Electrification CT7: College Fleet Electrification CT8: Aviation Shuttle Electrification CT9: Electrification of Parks Equipment CT10: Balloon Fiesta Park Electrification CT11: Golf Cart Electrification CT12: DC Fast Chargers CT13: College Public Charging

STRATEGY	IMPLEMENTATION ACTIONS
<i>Waste and Recycling (WR)</i>	WR1: Food Waste Prevention & Composting WR2: Tribal Landfill Diversion WR3: Municipal Green Waste
<i>Climate Conscious Neighborhoods (CN)</i>	CN1: County Green Stormwater Infrastructure CN2: City Green Stormwater Infrastructure CN3: Tree Plantings Inventory

These measures include policy actions and projects that meet one or more of the CPRG criteria and are considered implementation ready. After the identification of these projects, major efforts were undertaken to gather community input in the face of time constraints. These included the issuance of a community survey (in english and spanish), over 29 public meetings, and over 50 stakeholder conversations (see Appendix C for more information).

The process of developing this report clearly highlighted further work needs to be done to break down silos between government, industry, and community. The next steps in this CPRG program is developing a Comprehensive Climate Action Plan (CCAP) that seeks to directly tackle this issue and ensure coordinated climate action towards the most acute needs of our frontline communities.

Interested in the forthcoming CCAP? Visit cabq.gov/cprg for updates and opportunities to get involved.

INTRODUCTION

The Albuquerque Metro Statistical Area (MSA) is more than just the vibrant metropolitan of Albuquerque and is more than just the complex tapestry of people and cultures that call it home. It is more than the three mountain ranges surrounding it and more than the life-giving waters of the Rio Grande that flows through it. The Albuquerque MSA is the heartbeat of the state. Containing more than half of New Mexico's population, it is our transportation, economic, and innovation center. Over the last century, it has grown from a series of farms and Puebloan communities to be the state's industrial driver and change maker. Importantly, the Albuquerque MSA, in all that time, has never lost its connection to place. Rooted by the strong traditions of its indigenous people and Hispano communities, the Albuquerque MSA is a place that looks to the lands and to its past for ways to address its rapidly changing future.

Made of four counties: Bernalillo, Sandoval, Torrance, and Valencia County, the Albuquerque MSA is rich in diversity in its geology, environment, and people. Rapid climate change and its varied and unpredictable effects have already started to directly endanger this precious fabric. Historically underserved by federal investment, New Mexico has for many years had to develop its own degree of self-reliance, developing interconnections shared by all residents who are now being threatened by the current climate and ecological crises. While calls for climate action are global and resounding, there is also a great need to refine action to the local contexts of place and history, with the recognition that not all communities are impacted equally.

Greenhouse gas emissions and climate change have dramatic impacts on everyone. Even modest temperature changes have led to dire results. Already, we have experienced a significant increase in wildfires, leading to respiratory health effects. Climate change can also lead to food insecurity, water quality disruptions, allergies, and disease spread. Rising temperatures, extreme rainfall events, and drought have significant health effects that reverberate through communities but have the greatest impact on frontline communities – communities that will be impacted “first and worst” by the effects of climate change.⁷

Critical to any process to address climate change is the work of uplifting the voices and experiences of those residents who continue to be impacted by disparities in energy burdens, health outcomes, and accessibility, among other challenges. These continued disparities require that the Climate Pollution Reduction Grant (CPRG) program center the experiences of Albuquerque's frontline communities. New Mexico's indigenous peoples, Hispano communities, other communities of color, as well as communities of low-income and other groups, face greater exposure to ongoing and legacy pollution. They bear the brunt of climate hazards, and with limited means to respond, they often become trapped in cycles of debt and suffering.

Vital to Albuquerque MSA's future is understanding and investing in centering these voices in designing and implementing resilient systems. Changes in infrastructure, innovation, supply chains, housing, and more will be necessary to meet this goal. Siloed work will not be effective, and while understanding climate change is complex and interdisciplinary and working in collaboration with the community is not easy, it is necessary. It is the work we must take up to ensure the creation of enduring equitable institutional resiliency and knowledge that will benefit the whole of the Albuquerque MSA.

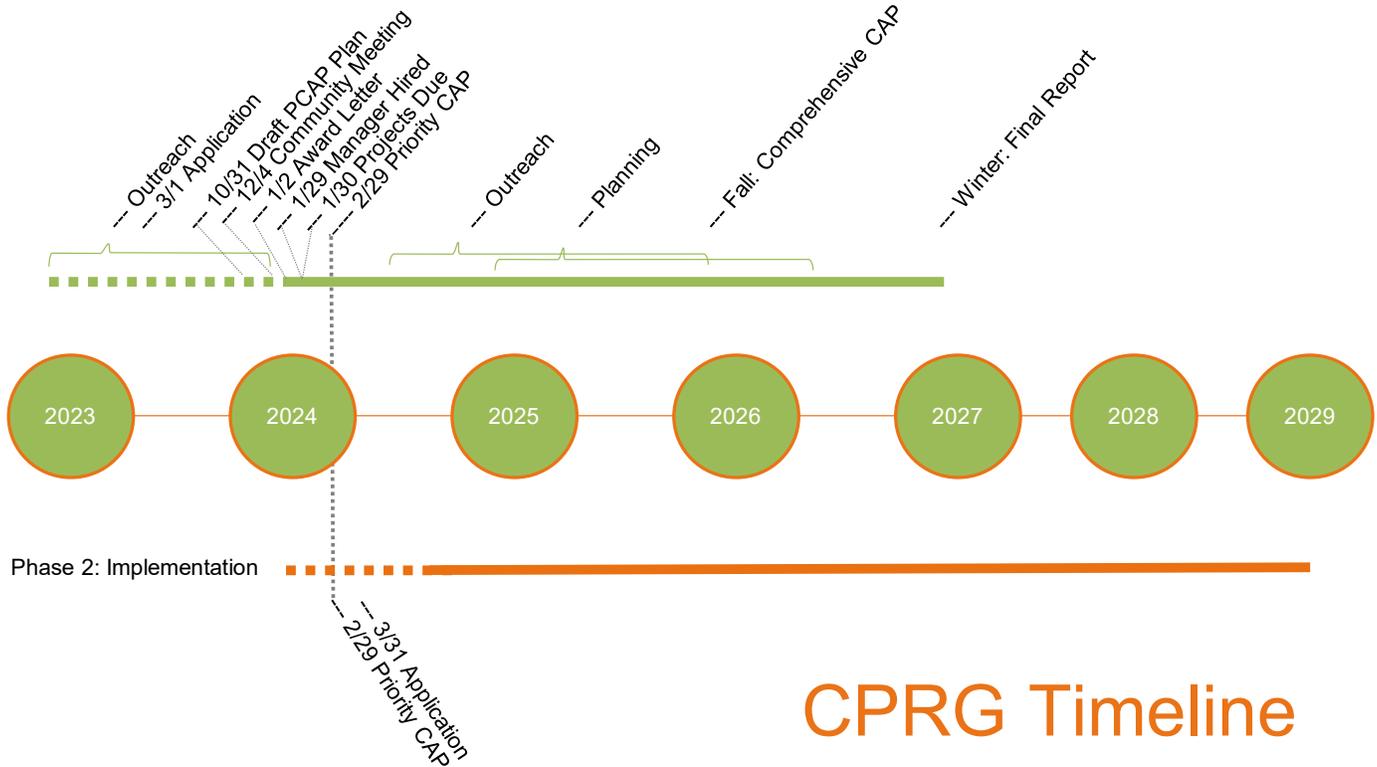
⁷ EPA uses the term Low-Income Disadvantaged Community (LIDAC) instead of frontline community. In this document, those terms are used interchangeably. The City of Albuquerque understands that these terms do not have the same meaning to all communities. To honor past community engagement, this report will use the term frontline communities in lieu of the term LIDAC.

ABOUT THE PRIORITY CLIMATE ACTION PLAN

This Priority Climate Action Plan (PCAP) represents the first steps to multi-jurisdictional planning that centers the needs of frontline communities. Designed under the U.S. Environmental Protection Agency’s (EPA) Climate Pollution Reduction Grant (CPRG) Planning Program,⁸ this initial report marks the start to a multi-year process seeking to shift the ways regulatory bodies, industry, and community collaborate, plan for, and build a resilient future for all.

Led by the City of Albuquerque, this CPRG Planning Program will fund the following initiatives over a four-year period for the entire Albuquerque Metro Statistical Area (MSA).

- 2024: Complete a region-wide PCAP
- 2024: Complete a region-wide greenhouse gas inventory
- 2026: Publish a community-driven Comprehensive Climate Action Plan (CCAP)
- 2027: Submit a status report to EPA



CPRG Timeline

⁸ “About CPRG Planning Program Information” U.S. Environmental Protection Agency, last updated on February 20, 2024, <https://www.epa.gov/inflation-reduction-act/about-cprg-planning-grant-information>.

The purpose of this PCAP is two-fold. First, it lays the foundation for the core deliverable in this initiative, the CCAP. It does so by necessitating early stakeholder engagement and by providing time for agencies to identify and build capacity for meaningful community involvement. Second, the PCAP identifies a list of implementation-ready projects that may qualify for a second funding opportunity under the [CPRG Implementation Program](#).⁹ This secondary funding opportunity seeks to fund projects that:

- Have direct benefit to frontline communities,
- Have immediate, substantial, and long-lasting climate pollution reductions, and
- Are implementation-ready.

The criteria listed above is a direct result of the Biden Administration’s commitment of centering equity in policies and federal funding and is supported by the Justice40 Initiative, a “whole-of-government” approach to directing at least 40 percent of the benefits from a variety of federal funds to frontline communities. This, combined with the growing desire to accelerate the energy transition in advance of the presidential election, has resulted in a momentous opportunity to access federal funds for community-based climate action. The CPRG Planning and Implementation Programs seek to prioritize climate pollution reduction efforts that work to address environmental injustice and empower community-driven solutions in frontline communities. Collaboration with and direction from frontline communities need to be and remain central to shaping multi-jurisdictional plans.

To ensure this PCAP is framed for community-based climate action, this document begins with a preliminary analysis of the MSA’s frontline communities and an overview of the MSA’s best data on greenhouse gas emissions (GHGe).¹⁰ Proceeding sections provide sector-specific context for the region and the MSA’s best data on community priorities¹¹ to set the stage for the projects submitted by multiple entities for inclusion in this PCAP. The conclusion offers an overarching assessment of where the CPRG criteria meet regional needs and priorities and identifies next steps. Finally, acronyms and definitions are listed in [Appendix A](#), [Appendix B](#) acknowledges the many people who contributed to the foundational documents, [Appendix C](#) details a comprehensive community engagement roadmap and resource list, [Appendix D](#) contains a summary table of all submitted government projects, and [Appendix E](#) provides full project descriptions of the measures for consideration, including measure-specific community feedback, frontline community benefits, and authority to implement.

DID YOU KNOW?

Both the State of New Mexico and City of Albuquerque have a Justice40 Oversight and Coordinating Committee and the City was the first city in the nation to embrace the initiative.

⁹ “Climate Pollution Reduction Grants Program: Implementation Grants General Competition” U.S. Environmental Protection Agency, last updated on January 16, 2024, <https://epa.gov/system/files/documents/2024-01/cprg-general-competition-correction.pdf>.

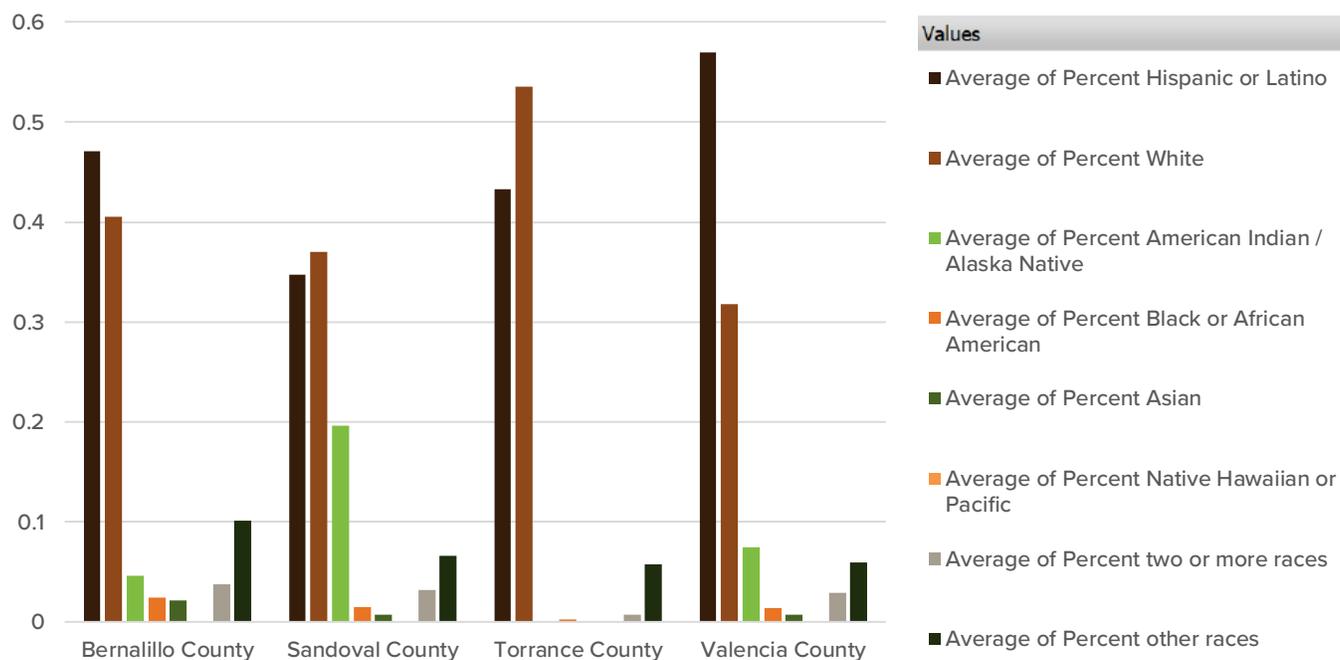
¹⁰ The best data on the MSA’s GHG emissions is the 2020 Albuquerque Greenhouse Gas Inventory which uses data from 2008-2017. The City of Albuquerque is actively working on a contract to conduct an MSA-side GHG Inventory which will inform the forthcoming CCAP.

¹¹ The best data on the priorities and needs of frontline communities.

FRONTLINE COMMUNITY ANALYSIS

CLIMATE RISKS & PRIORITY CENSUS TRACTS

The Albuquerque MSA is composed of highly diverse communities that experience significant climate impacts and risks. As a region where nearly half of the communities in the region are considered at-risk communities, it is even more important to focus efforts to mitigate climate change, reduce financial burdens and health risks, and provide additional benefits to the people and environment in frontline community tracts¹² in the Albuquerque MSA.



¹² EPA uses the term Low-Income Disadvantaged Community (LIDAC) instead of frontline community. For the purposes of this analysis, the term frontline community tract refers to the EPA’s LIDAC census tracts that are identified as priority census tracts based on criteria used in the Climate and Economic Justice Screening Tool (<https://screeningtool.geoplatform.gov/en/#6.89/34.546/-106.669>) and used in the Environmental Justice Screening and Mapping Tool (<https://www.epa.gov/ejscreen>).

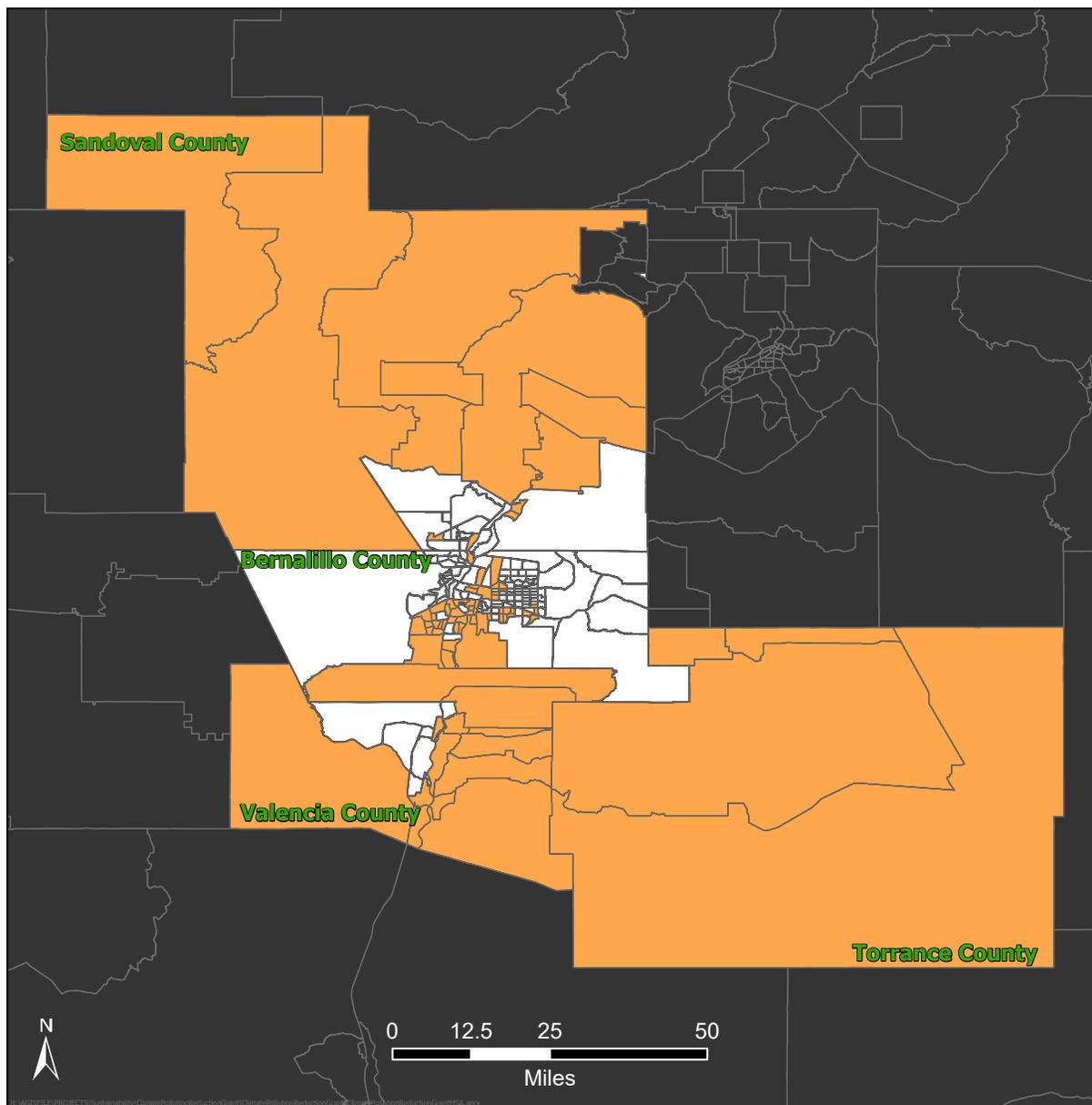
The Albuquerque MSA consists of 202 census tracts that cover an area of 9,950 square miles, includes four counties (Bernalillo, Sandoval, Valencia, and Tarrant), and is home to a population 108, 650 people based on 2022 census data. Of the 202 census tracts, 40% or 80¹³ tracts are identified as frontline community tracts based on the combined layer EPA created using both the Climate and Economic Justice Screening Tool (CEJST) and Environmental Justice Screening and Mapping Tool (EJScreen) tools. The 80 frontline community tracts are dispersed across the four counties with the largest number of tracts in the most densely populated portion of the area, Bernalillo County. The breakdown of frontline community tracts by county is as follows: 53 in Bernalillo County, 12 in Valencia County, 11 in Sandoval County, and 4 in Tarrant County (see map on next page).

To better understand frontline communities in the Albuquerque MSA, here are some of the major risks and challenges people in these areas face:

- 78 tracts exceed the federal poverty level 200 threshold.
- 68 tracts have low high school education and a low percentage of higher ed students.
- 48 tracts climate change disadvantaged.
- 38 tracts training and workforce development disadvantaged.
- 37 tracts have a greater than or equal to the 90th percentile for share of properties at risk for fire in 30 years.
- 34 tracts have greater than or equal to the 90th percentile for diesel particulate matter.
- 31 tracts are greater than or equal to the 90th percentile for expected agricultural loss.
- 31 tracts clean transit disadvantaged.
- 29 tracts affordable and sustainable housing disadvantaged.
- 26 tracts have greater than or equal to the 90th percentile for homes without indoor plumbing or a kitchen.
- 26 tracts have greater than or equal to the 90th percentile for proximity to superfund sites

¹³ The tract numbers for all 80 LIDAC tracts in the Albuquerque MSA are: 35001000129, 35001000203, 35001000205, 35001000208, 35001000501, 35001000603, 35001000604, 35001000708, 35001000712, 35001000713, 35001000901, 35001000903, 35001000904, 35001001102, 35001001200, 35001001300, 35001001400, 35001001500, 35001002000, 35001002100, 35001002300, 35001002401, 35001002402, 35001002500, 35001002700, 35001003201, 35001003202, 35001003400, 35001003501, 35001003714, 35001003733, 35001003736, 35001004001, 35001004300, 35001004401, 35001004501, 35001004502, 35001004602, 35001004604, 35001004712, 35001004713, 35001004715, 35001004716, 35001004733, 35001004734, 35001004735, 35001004736, 35001004737, 35001004738, 35001004739, 35001004741, 35001004749, 35001940700, 35043010503, 35043010713, 35043010716, 35043010900, 35043011000, 35043011200, 35043940200, 35043940500, 35043940600, 35043940700, 35043940900, 35057963201, 35057963202, 35057963600, 35057963700, 35061940300, 35061970101, 35061970102, 35061970301, 35061970302, 35061970303, 35061970401, 35061970901, 35061970902, 35061971000, 35061971100, 35061971300. The list and details on these tracts are available at cabq.gov/cprg.

Albuquerque Statistical Area



Frontline Communities in the Albuquerque Metro Statistical Area
Using Justice40 Tract Data



FRONTLINE COMMUNITY ENGAGEMENT

To improve how frontline communities in the MSA benefit from the policies and climate actions that shape their home, the City of Albuquerque utilized several methods to better understand their needs in face of severe time constraints.¹⁴ The summary of project submission and community engagement are as follows:

- August 10, 2023: Single Space Strategies begin CPRG Working Group¹⁵ meetings
- October 2023: CPRG becomes an ongoing agenda item for the Albuquerque J40 OCC,
- December 2023: Invitation to participate shared through the Mid-Region Council of Governments' (MR-COG) network,
- December 1, 2023: Initial draft of Priority Climate Actions List posted,
- December 4, 2023: PCAP Public Comment Meeting (hybrid), in collaboration with J40 OCC
- January, 2024: 8 additional community meetings held for late project submissions

As depicted above, the community input was solicited using traditional methods, beginning with the selection and submission of government and industry-led projects and various rounds of community engagement after the fact. While this technique was favorable due to time restrictions and the requirements of the Implementation Program,¹⁶ it does not incorporate best practices for community involvement, collaboration, or ownership. To alleviate this gap, additional methods were incorporated to better reflect the needs and views of frontline communities in the Albuquerque MSA. These include:

- A request for community-driven projects, shared by the J40 OCC to community organizers,
- The inclusion of the 2021 CAP Task Force recommendations¹⁷ in each section topic,
- The inclusion of the Albuquerque J40 OCC recommendations in the conclusion, and
- A renewed commitment to improve community involvement in the forthcoming CCAP

For a more detailed description of past and planned community engagement, see Appendix C.

¹⁴ CABQ was not issued an award letter for the CPRG Planning Program until January 2, 2024.

¹⁵ The CPRG Working Group consists of government staff across the City and the Counties, who have been actively working to identify and implement projects that meet the CPRG criteria.

¹⁶ The CPRG Implementation Program necessitates that projects in the application must be government-led and “implementation-ready”. This resulted in the assumption that projects had to be at least in initial planning stages to be considered for funding.

¹⁷ The 2021 CAP Task Force recommendations are the result of several months of community-centered engagement sessions for the City of Albuquerque. While these views do not necessarily reflect the perspectives and needs of all frontline communities across the MSA, it is the direct recommendations from Albuquerque-based frontline community members and represents the best information available until more comprehensive engagement can be done.

The results of these efforts included seven projects submitted by community organizations. These include:

- Example 1: Reduce the energy burden in low income households and communities for color in the historic communities of color neighborhoods in the City of Albuquerque through housing rehabilitation and energy efficiency programs and energy audits.
- Example 2: Restore, enhance, and plant more urban tree canopies in the historic neighborhoods of the City of Albuquerque.
- Example 3: Create more green spaces in key working class people of color neighborhoods like Santa Barbara Martineztown Neighborhood at 1100 Woodward NE.
- Example 4: Energy audits and energy efficiency upgrades to community centers and Senior centers in: Herman Sanchez Community Center, Jack Candelaria Community Center, Dennis Chavez Community Center, John Marshall Multipurpose Center, Barelas Community Center, and Barelas Senior Center, Santa Barbara Community Meeting Room
- Example 5: Creating job training programs at historic neighborhood community centers and highschools for energy audits (Albuquerque High School, Herman Sanchez Community Center).
- Example 6: Building a 1MW microgrid and creating the foundation of good quality jobs in the renewable energy sector.
- Example 7: Building 15 MW array and creating the foundation of good quality jobs in the renewable energy sector.



GREENHOUSE GAS INVENTORY

Tracking greenhouse gas (GHG) data is vital for any effective climate change strategy. To gain our best estimate of GHGe in the Albuquerque MSA, this plan builds off of the [2020 Greenhouse Gas Inventory](#) for the City of Albuquerque. This helps provide a snapshot of human activity and trends that covers stationary sources (buildings), transportation, and waste.

Data for the 2020 inventory was prepared following the Global Protocol for Community Scale Greenhouse Gas Emission Inventories (GPC) using the City Inventory Reporting and Information System (CIRIS) tool. The inventory does not include GHG emissions related to the consumption of goods within the Albuquerque city limits that originated elsewhere nor include non-energy related industrial activities or agriculture, forestry, or other land-use emissions or sinks.

The results show that major contributors to the City’s GHG emissions include on-road transportation (33%), commercial and institutional buildings (26%), and residential buildings (25%). This indicates that stationary energy¹⁸ is the largest emissions producer at 55% of total emissions. Of that, 48% is from commercial/institutional sources, 46% is from residential, and 7% is from manufacturing and construction. Transportation is the next largest producer of emissions and includes on-road and off-road transportation, railways, and aviation with the majority of emissions coming from on-road transportation. Waste only produces around 4% of total emissions, but is still a significant source with emissions releasing mainly in landfills as waste starts to break down producing methane, a very powerful greenhouse gas. Waste also only accounts for product disposal impacts, and more is needed to assess prevention and reduction efforts. To understand the true benefits of addressing waste-related emissions it is essential to evaluate emissions tied to other aspects of the materials management pathway (i.e., scope 3 emissions sources) in alignment with the EPA’s Waste Management Hierarchy¹⁹ and Wasted Food Scale.²⁰

GREENHOUSE GAS MITIGATION HIERARCHY



¹⁸ Stationary energy is all the energy that is used to power commercial, institutional and residential buildings in the entire city.

¹⁹ “Sustainable Materials Management: Non-Hazardous Materials and Waste Management Hierarchy,” U.S. Environmental Protection Agency, last updated on June 19, 2023, <https://www.epa.gov/smm/sustainable-materials-management-non-hazardous-materials-and-waste-management-hierarchy>.

²⁰ “Wasted Food Scale,” U.S. Environmental Protection Agency, last updated on February 13, 2024, <https://www.epa.gov/sustainable-management-food/wasted-food-scale>.

To ensure future comprehensive climate action planning efforts are grounded in the most accurate data, an in-depth GHGe Inventory will be conducted in the year after releasing this document.²¹ The intention of this expanded inventory is to cover scope 1-3 emissions and identify both consumption-based greenhouse gas emissions and sector-based inventories to account for emissions from producing, using and disposing of products within the MSA.

SCOPE 1



EMISSIONS INSIDE THE MSA

GHGe from sources located within the Albuquerque MSA

SCOPE 2



GRID-SUPPLIED ENERGY EMISSIONS

GHGe generated as a result of the use of grid-supplied electricity, heat, steam, and/or cooling within the Albuquerque MSA

SCOPE 3



OUTSIDE EMISSIONS

All other GHGe that occur outside the Albuquerque MSA as a result of activities taking place inside the Albuquerque MSA



²¹ Scope 1, Emissions Inside the MSA: GHGe from sources located within the Albuquerque MSA. Scope 2, Grid-Supplied Energy Emissions: GHGe generated as a result of the use of grid-supplied electricity, heat, steam, and/or cooling within the Albuquerque MSA. Scope 3, Other Outside Emissions: All other GHGe that occur outside the Albuquerque MSA as a result of activities taking place inside the Albuquerque MSA.

SUSTAINABLE BUILDINGS

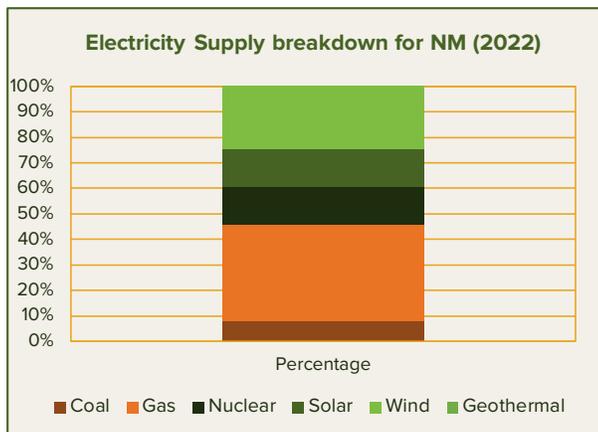
Buildings of all types have a multifaceted role to play in improving sustainability and growing an equitable, greener economy. Our homes and places of work all use energy, water and materials that create environmental strains. Extrapolating from the City’s most recent greenhouse gas inventory, the energy generated to power the buildings in Albuquerque’s MSA accounts for the majority of total annual GHGe.

The GHGe from this section derive from two sources: the burning of natural gas, and the use of electricity. In Albuquerque MSA, all natural gas is supplied by one publicly regulated entity: the New Mexico Gas Company (NMGC). Natural gas is used for heating, cooking and electricity generation.

GHGe for electricity are challenging to inventory because each unit of generated electricity produces a different amount of GHGe. This is due to the differing types of energy sources used to generate electricity. Currently, the Public Service Company of New Mexico (PNM), Albuquerque MSA’s electric utility, generates energy from coal, natural gas, nuclear, solar, wind and geothermal, as shown in the chart below.²²

The types of energy sources used for power generation vary based on consumer demand, which changes hour-to-hour and season-to-season. When energy needs are high (e.g., mid-day, mid-winter), utilities typically use peak load energy supply which can include natural gas and wind. In off-peak hours, baseload energy such as coal and solar with storage can be used. Weather conditions also affect the productivity of renewables, causing raising or lowering production at certain times of the year.

As of 2019, PNM has committed to phasing out its coal and some natural gas-fired power plants and increasing its reliance on solar to achieve a goal of 100% emissions-free energy generation by 2040.²³ As



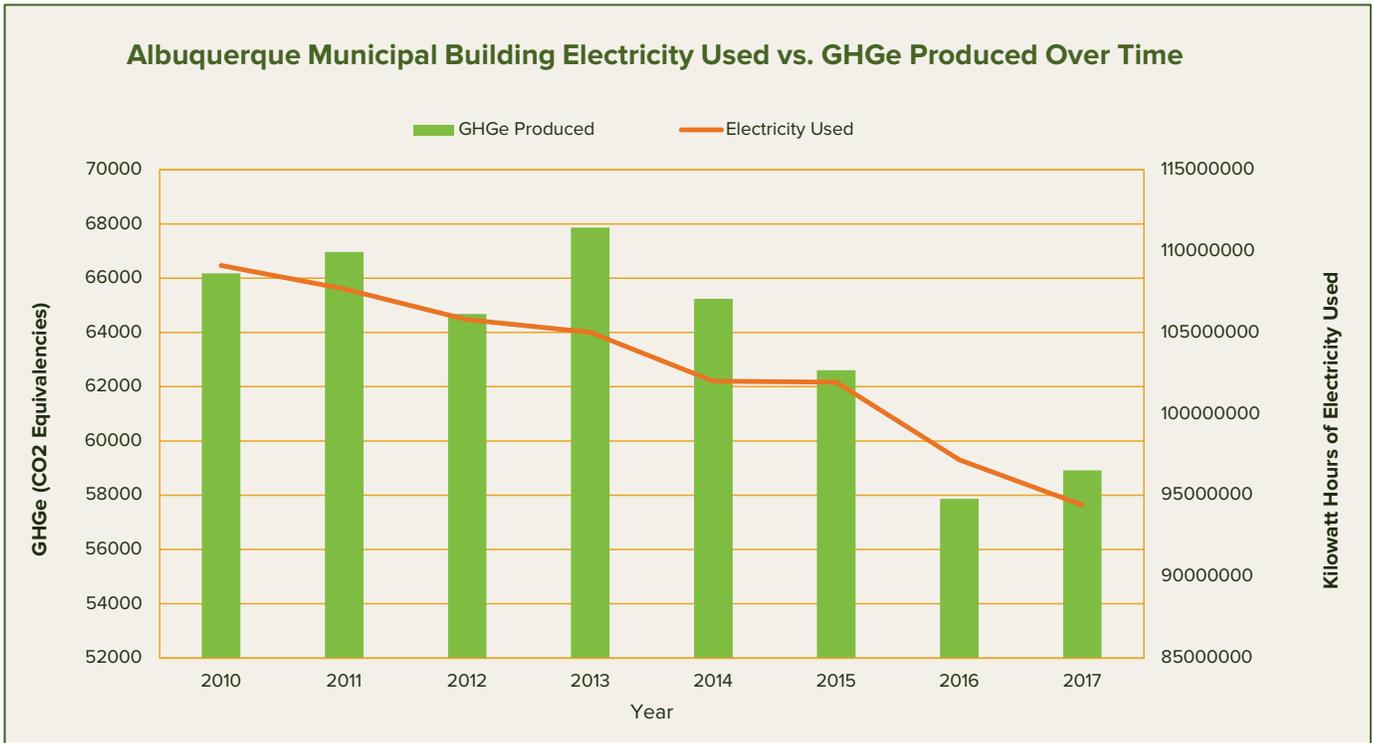
the trajectory of adopting emissions-free energy unfolds, the Albuquerque MSA can expect to see declines in GHGe produced through power generation.

Although energy efficiency measures can help to lessen the buildings’ energy consumption thereby reducing GHGe produced, phasing out emissions-producing energy sources is vital to eliminating power generation emissions. Take the City of Albuquerque’s electricity use for municipal buildings for example. As seen in the chart on the next page, between 2010 and 2017 consumption steadily declined thanks to investments in energy efficiency upgrades, yet the GHGe produced from the production of that electricity fluctuated.

DID YOU KNOW?
 The City of ABQ makes investments in its own facilities to increase energy efficiency with a carve-out from its capital improvement budget known as the 3% for Energy Conservation Fund.

²² PNM (2022). Energy Sources. Retrieved on February 25, 2024 from <https://www.pnm.com/energy-sources>

²³ PNM (2020). Our Commitment. Retrieved on November 6, 2020 from <https://www.pnm.com/our-commitment>



In New Mexico, multiple programs and efforts support both commercial and residential energy efficiency. The New Mexico Mortgage Finance Authority (MFA) utilizes federal and local utility funding to support home energy upgrades for low-income homes through its NM Energy\$mart Program. Following the passage of the 2005 Efficient Use of Energy Act, utilities have created a variety of energy-use reduction programs including audits and upgrades for low-income and multi-family homes.

In 2020, the City of Albuquerque adopted the 2018 International Energy Conservation Code, which sets more energy-efficient standards for new construction. Finally, the State of New Mexico offers the Sustainable Building Tax Credit to encourage private sector design and construction of energy-efficient buildings for commercial and residential use.

After the passage of the [Community Energy Efficiency Development \(CEED\) Block Grant Fund](#) during the 2022 legislative session, New Mexico took a much-needed step forward in sustainable building efforts that address longstanding equity issues. This block grant provides money to local and Tribal governments and the Mortgage Finance Authority specifically for retrofits and energy upgrades in single-family, low-income homes. Individuals can apply for these free retrofits under the NM Energy Smart Weatherization Program at housingnm.org.

DID YOU KNOW?

Community Energy Efficiency program retrofits provided services in frontline communities valued at \$260,000.

NOW, EACH YEAR, THE UPGRADES SAVE:

- Residents an estimated \$7,000 in utility costs**
- 41,000 kWh of electricity**
- 4,500 therms of natural gas**
- 138,800 gallons of water**
- 60 tons of CO₂**

TASK FORCE RECOMMENDATIONS

The CAP Task Force, recognizing energy efficiency’s many environmental and human benefits, discussed a range of solutions. Foremost, the CAP Task Force prioritized frontline communities’ ability to access and benefit from efficiency technologies, as these residents’ utility bills often demand disproportionately high percentages of their household incomes, also known as “energy burdens”.²⁴ Programs to support building efficiency measures often include financial incentives, such as utility rebates; however, public awareness of these programs are vital to their deployment.²⁵

Another strategy discussed by the CAP Task Force was energy use disclosures – the practice of informing potential homebuyers and tenants of a home’s energy use costs (including potentially disproportionate costs) before leases or purchase agreements are signed. In jurisdictions throughout the U.S., energy use disclosures are enacted by law to help residents make informed decisions by understanding the full cost of housing, while also incentivizing property owners to invest in energy efficiency.²⁶ The CAP Task Force also advocated for offsetting the energy impacts of heat by expanding opportunities for incorporating drought-tolerant vegetation and trees in frontline communities.²⁷

Large-scale options were also seen by the CAP Task Force as necessary to ensure greater building sustainability. The CAP Task Force called for energy efficiency standards to be consistently and regularly updated following Albuquerque’s adoption of the 2018 International Energy Conservation Code. Other priorities included a focus on urban infill development to reduce sprawl and resource strains, as well as electrifying buildings to facilitate the increased incorporation of electricity created by renewable sources instead of natural gas. All CAP sustainable buildings and development strategies align with the CAP Task Force’s agreed-upon principle to embrace culturally appropriate strategies for green building standards that respect and support sustainable indigenous building practices to better align the community with the traditional knowledge which has long spearheaded effective climate-conscious living.

²⁴ The term “energy burden” refers to how much of a household income is spent on energy costs. In Albuquerque, the average energy burden is 2 percent of household income. However, in many neighborhoods, residents of low-income often experience average energy burdens of 6 percent or higher.

²⁵ In New Mexico, multiple utility, federal, state and local programs support improving both commercial and residential energy efficiency for more information see <https://www.cabq.gov/sustainability/home-energy-efficiency>.

²⁶ “Residential Energy Use Disclosure: A Guide for Policymakers.” American Council for an Energy-Efficient Economy, February 5, 2020.

²⁷ By providing shade and through evapotranspiration, trees and vegetation that directly shade buildings decrease demand for air conditioning. Shaded surfaces, for example, may be 20–45°F (11–25°C) cooler than the peak temperatures of unshaded materials. “Using Trees and Vegetation to Reduce Heat Islands.” United States Environmental Protection Agency, n.d. <https://www.epa.gov/heatislands/using-trees-and-vegetation-reduce-heat-islands>

SUSTAINABLE BUILDINGS PRIORITIES IN THE 2021 CLIMATE ACTION PLAN

Initiation	Priority	Constraints	Benefits	Favorable Policy
NT: Near-Term (By 2022) MT: Mid-Term (By 2026) LT: Long-Term (By 2031)	P: Primary S: Secondary	A: Awareness B: Behavior I: Investment P: Policy T: Technology & Infrastructure	AR: Adaptation & Resilience AQ: Air Quality CM: Climate Mitigation ED: Economic Development EQ: Equity Building HO: Health Outcomes QL: Quality of Life	Environment *Policy Environments Change. This is solely based on the knowledge of the Task Force

	Strategies	Phase	Priority	Constraints	Benefits								Policy
					AR	AQ	CM	ED	EQ	HO	QL		
Green Buildings & Development	Support local and state legislation that prioritizes urban infill, brownfield redevelopment and renovations, rather than new developments/new construction.	LT	P	A,P			X	X					X
			S	B,I	X	X			X	X	X		
	Support consistent and timely adoption of local and state legislation that requires developers and home builders to continue to meet current energy standards for newly constructed or renovated buildings and homes.	MT	P	B,I,P	X	X	X	X					X
			S	A					X	X	X		
	Prioritize the electrification of new City facilities and major renovations to existing City facilities, and support code requirements for electrification of private commercial and residential buildings.	MT Ongoing	P	I,P	X	X	X	X					X
			S	A,B					X	X	X		
Energy Efficiency for Frontline Communities	Explore opportunities to expand usage of drought tolerant plants, especially in frontline communities, utilizing existing plant guidance from the Albuquerque Bernalillo County Water Authority and the City of Albuquerque.	NT Ongoing	P	A,B,P	X				X			X	
			S	I		X	X	X		X	X		
	Promote access to programs that give incentives for window replacement, insulation, lighting, appliance upgrades, and other energy efficiency improvements for people with low-income.	NT Ongoing	P	A,B,I	X		X	X	X	X		X	
			S	P		X					X		
	Support new legislation that requires energy disclosure during sale or lease of buildings, home or rental properties.	NT Ongoing	P	P	X				X		X	X	
			S	A,B,I,T		X	X	X		X			

OVERVIEW OF WORKING GROUP MEASURES

Working Group members in the Albuquerque MSA identified four main opportunities to apply sustainable building strategies prioritized by the CAP Task Force. The first two implementation-ready project listed, focus on providing energy efficiency upgrades to frontline communities. Community Energy Efficiency (Sustainable Buildings 1 [SB1] measure) is a direct expansion of a successful program led by community-based organizations Prosperity Works and Energy Works, and Multi-Family Decarbonization seeks to bring some of these best practices to renters across the MSA.

The second two measures focus on bringing sustainable building practices to community spaces. Community Center Efficiency and Education (SB3) originally provided efficiency upgrades, solar power, and EV infrastructure to Bernalillo County community centers across the MSA. After several community meetings, this measure was further expanded upon to reach more centers and incorporate educational programs. The Los Poblanos Open Space measure (SB4) seeks to provide energy efficiency and renewable energy to the Rio Grande Community Farm, an educational center centering regenerative farming techniques.

All the measures in the table below center around or work towards one or more CAP Task Force recommendations for sustainable buildings. The table provides the strategy, general impact area, title, estimated GHGe reduction, and measure-specific cost effectiveness. Additional details for the following measures are included in Appendix D, which is organized by the measure short code (e.g., SB1) and title.

MEASURES

STRATEGY	IMPLEMENTATION MEASURE
<p>Community Energy Efficiency</p> <p><i>MSA-Wide</i></p>	<p>SB1: Expansion of low income residential decarbonization across the MSA Total Funding Request: \$22,968,690 \$/GHGe Reduction: \$29 / MT CO2e</p>
<p>Multi-Family Decarbonization</p> <p><i>MSA-Wide</i></p>	<p>SB2: Multi-faceted program to address energy burdens in low-income rental units. Total Funding Request: \$6,931,984 \$/GHGe Reduction: \$28 / MT CO2e</p>
<p>Community Center Efficiency & Education</p> <p><i>MSA-Wide</i></p>	<p>SB3: Sub-grant program to develop cooling and education centers to share sustainability best practices to front-line communities. Total Funding Request: \$8,054,300 \$/GHGe Reduction: \$2,157 / MT CO2e</p>
<p>Los Poblanos Open Space</p> <p><i>City of Albuquerque</i></p>	<p>SB4: Improvements at Los Poblanos Farm to include a solar agriculture shed and workshop with storm management features and incinerating toilets. Total Funding Request: \$159,452 \$/GHGe Reduction: \$1,694 / MT CO2e</p>

STRATEGY	IMPLEMENTATION MEASURE
<p>Transit-Oriented Development</p> <p><i>MSA-Wide</i></p>	<p>CT1: Implementation of a public transit plaza and mixed-use affordable housing development in Uptown Albuquerque.</p> <p>Total Funding Request: \$5,472,821</p> <p>\$/GHGe Reduction: \$11,184 / MT CO₂e</p>
<p>Tree Plantings & Inventory</p> <p><i>MSA-Wide</i></p>	<p>CN3: Expansion of tree plantings and inventory in low-income neighborhoods.</p> <p>Total Funding Request: \$4,750,000</p> <p>\$/GHGe Reduction: \$1,398 / MT CO₂e</p>



RENEWABLE ENERGY

Renewable energy is energy generated from sources that are not depleted by use (e.g., solar, wind, geothermal and hydropower), and offer an alternative to more carbon-intensive fuels (e.g., coal, oil and natural gas). With its 350 sunny days a year and high elevation, Albuquerque MSA has exemplary environmental conditions for solar energy generation, and great potential to further increase development in the solar sector. Recent policy and technological advancements have spurred widespread local adoption of solar infrastructure by the private sector, homeowners and governments, allowing the Albuquerque MSA to become a national leader in solar.

In the MSA, the electrical utility is the PNM, an investor-owned utility (IOU), regulated by the New Mexico Public Regulation Commission (PRC). Currently, PNM generates energy from coal, natural gas, nuclear, solar, wind and geothermal sources; the amounts and types of energy PNM generates is based on consumer demand, which changes hour-to-hour, and season-to-season. In accordance with the Energy Transition Act, PNM has committed to increasing its reliance on solar and phasing out all of its coal and some of its natural gas-fired power plants to achieve the goal of 100 percent emissions-free energy generation by 2040.

Given the state’s remarkable renewable energy potential, additional efforts are actively underway to build out solar, wind, and geothermal energy sources. One example of this is the Community Solar legislation passed during the 2021 session that aims to eventually provide everyday New Mexicans, from homeowners to renters, better access to clean local electricity. This is accomplished by authorizing solar projects from small, local solar facilities. Once created, these facilities will be shared by multiple community subscribers. Residents who sign up receive credit on their electricity bills for their share of the power produced.

As of early 2024, the 45 selected solar projects are ramping up. The process for New Mexicans to be able to subscribe to these programs will be slow. Setbacks and the gradual nature of rolling out a new and complex program means it could be months or years before community members can tap into this network.

Geothermal energy is also increasingly becoming an important resource for helping to move New Mexico away from fossil fuel production. As of the writing of this document, **House Bill 91: Geothermal Resources Project Funds** and **House Bill 92: Geothermal Electricity Generation Tax Credits** have passed but are awaiting the Governor’s signature. Should both of these bills be made into effect, it would greatly expand the capacity of the State for geothermal development projects by providing funding to a geothermal project development fund, a geothermal project revolving loan fund, tax incentives for corporate geothermal electricity generation, and a gross receipts tax and compensating tax reductions for geothermal energy development.

DID YOU KNOW?
The State of New Mexico is ranked 6th in the nation for geothermal potential.

TASK FORCE RECOMMENDATIONS

The CAP Task Force discussions regarding energy went beyond the importance of increasing renewable energy adoption, instead centering on the concepts of a decentralized grid and its future modernization. In the traditional energy generation model, power is generated from a central facility and then distributed to buildings via power lines. Advancements in solar energy technology have reimagined the traditional energy model by creating opportunities to generate power at the same site where it is needed, creating more distributed energy generation. Examples of distributed energy include community solar projects, which allow for community members to have access to non-utility-owned solar when their homes are not conducive to rooftop solar installation.²⁸

Acknowledging the anticipated influx in renewable energy availability, the CAP Task Force engaged in deep discussions on pursuing more widespread and equitable access to renewable energy for all Albuquerque residents. While the CAP Task Force’s recommendations primarily focus on finding new pathways for more democratic systems of energy deployment, the group also emphasized the importance of investing in additional infrastructure and technologies such as microgrids, battery storage and grid modernization. The CAP Task Force recognized these technologies as vital to advancing more distributed energy generation, renewable energy adoption and future power grid security.

RENEWABLE ENERGY PRIORITIES IN THE 2021 CLIMATE ACTION PLAN

		Initiation NT: Near-Term (By 2022) MT: Mid-Term (By 2026) LT: Long-Term (By 2031)	Priority P: Primary S: Secondary	Constraints A: Awareness B: Behavior Change I: Investment P: Policy T: Technology & Infrastructure	Benefits AR: Adaptation & Resilience AQ: Air Quality CM: Climate Mitigation ED: Economic Development EQ: Equity Building HO: Health Outcomes QL: Quality of Life								Favorable Policy Environment *Policy Environments Change. This is solely based on the knowledge of the Task Force
Strategies		Phase	Priority	Constraints	AR	AQ	CM	ED	EQ	HO	QL	Policy	
Renewable Energy Development	Support local and state-wide standards for community solar programs, micro-grid establishment and grid modernization prioritizing low income areas.	MT	P	I,P,T			X	X				X	
			S	A,B	X	X			X	X	X		
	Form partnerships with neighborhoods, businesses, institutions, and utilities to increase solar development prioritizing frontline communities.	MT Ongoing	P	A,B	X		X		X			X	
			S	I,P,T		X		X		X	X		
	Create mechanisms for frontline communities to engage in decision-making regarding the ownership, generation, storage, distribution of, and transition to renewable energy.	MT	P	A,B,P	X				X			X	
			S	I		X	X	X		X	X		

²⁸ Solar Energy Technologies Office. “Community Solar Basics.” U.S. Office of Energy Efficiency and Renewable Energy, n.d. <https://www.energy.gov/eere/solar/community-solar-basics>

OVERVIEW OF WORKING GROUP MEASURES

Measures submitted by Working Group members in this section only focus on solar development. Given the close match of the region’s solar gain and energy load and the ease of implementation, this is unsurprising. The three measures in this section highlight the multiple ways renewable energy development can benefit the region (RE1, SB2, and SB4). These measures, if implemented, help offset facility energy use, capture cost savings, and provide publicly accessible shade structures.

All the measures in the table below center around or work towards one or more CAP Task Force recommendations for renewable energy. The table provides the strategy, general impact area, title, estimated GHGe reduction, and measure-specific cost effectiveness. Additional details for the following measures is included in [Appendix D](#), which is organized by the measure short code (e.g., RE1, SB3, and SB4) and title.

MEASURES

STRATEGY	IMPLEMENTATION MEASURE
<p>College Solar Canopies</p> <p><i>Central New Mexico Community College</i></p>	<p>RE1: Installation of solar canopies at Central New Mexico College.</p> <p>Total Funding Request: \$1,752,993</p> <p>\$/GHGe Reduction: \$1,115 / MT CO2e</p>
<p>Community Center Efficiency & Education</p> <p><i>MSA-Wide</i></p>	<p>SB3: Sub-grant program to develop cooling and education centers to share sustainability best practices to front-line communities.</p> <p>Total Funding Request: \$8,054,300</p> <p>\$/GHGe Reduction: \$2,157/ MT CO2e</p>



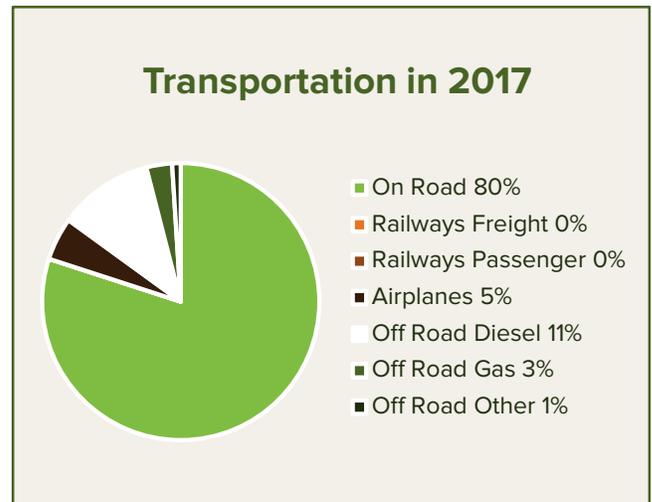
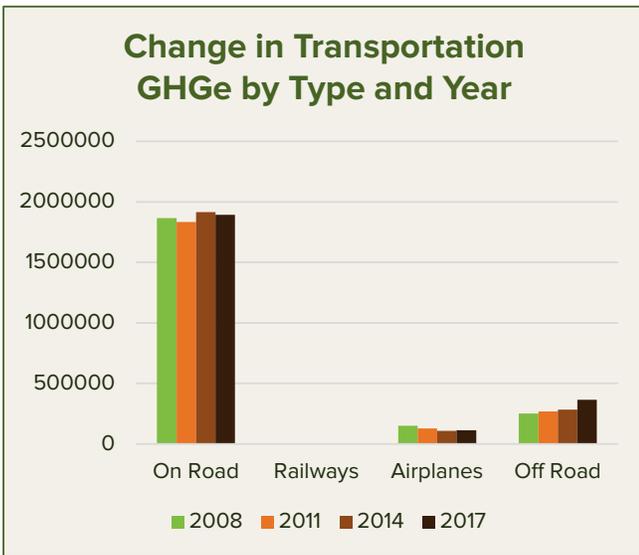
CLEAN TRANSPORTATION

With an international airport, rail, and interstate connections, the Albuquerque MSA is the state’s major transportation hub and a spread-out, southwestern city and region. Both of these factors contribute to significant levels of GHG emissions deriving from transportation, which equal forty-one percent of the City of Albuquerque’s total emissions and approximately 2,310,992 metric tons of carbon dioxide (CO2) equivalent. A majority of these emissions come from on-road travel that produces about 1,914,544 metric tons of CO2 equivalent (MTCO2E). On-road transportation is made up of all the travel that has to take place in a vehicle every day, such as commuting to and from work and moving freight. The remaining emissions within the transportation sector come from off-road vehicles and equipment, aviation, and railways.

DID YOU KNOW?

In January, New Mexico was awarded nearly \$68 million to boost vehicle charging infrastructure across the state through the Bipartisan Infrastructure Law’s Charging and Fueling Infrastructure Discretionary Grant Program.

In other areas of the Albuquerque MSA outside the City of Albuquerque, on-road vehicles are also a substantial portion of the transportation GHG emissions, due to limited alternative transportation options, such as Rio Metro’s Rail Runner regional rail and shuttle bus services.



While GHGe from travel can be challenging to calculate, this report utilized the best data available to estimate all journeys by road, rail, and air, including inter-city and international travel from within the city limits.²⁹ As seen in the accompanying graph, changes in transportation GHGe have not shown significant downward trends over time. Airplane emissions have made some downward progress while off-road emissions have increased. The amount of vehicle-based travel occurring every day calls for creative ways to reduce GHGe.

Over the last two years, some potential solutions are emerging in New Mexico from both community and government-led initiatives. Together For Brothers,³⁰ a 501(c)3 non-profit, for example, is actively involved in promoting transit equity, mobility sovereignty, and advocating for mobility self-determination across the MSA. Together for Brothers was a key community partner that advocated for a pilot Zero Fares transit program in December 2021 for the City of Albuquerque's transit system, ABQ RIDE. The pilot Zero Fares program became permanent in November 2023 for all ABQ RIDE services, due in part to their continuing community outreach and advocacy. ABQ RIDE serves about 23,800 riders daily, 88% of whom live in households with an income of less than \$35,000 a year. The permanent Zero Fares program gives low-income frontline communities more equitable access to sustainable transportation options. This summer, Together for Brothers will be spearheading several surveys and community engagement sessions to outline pathways to continually improve transit equity in the region.

Communities are also addressing the need to encourage active transportation and improve conditions for pedestrians and cyclists in the Albuquerque MSA, through collaboration and coordination of active transportation planning efforts. The City of Albuquerque is continuing to improve its Complete Streets and Vision Zero programs, through targeted implementation and development of prioritization strategies. The City is also updating its Bikeway and Trail Facilities Plan to focus on making biking a safer and more appealing option for people of all ages, abilities, and backgrounds to access everyday destinations. In conjunction with these City initiatives, Bernalillo County is updating its Pedestrian and Bicyclist Safety Action Plan to incorporate the Federal Highway Administration's Safe System Approach as the strategy to reach its Vision Zero objectives and guide future active transportation capital infrastructure projects. Finally, the Mid-Region Metropolitan Planning Organization, which covers the Albuquerque MSA, is updating its Regional Transportation Safety Action Plan to: (1) create profiles of local jurisdictions and identify dangerous locations, (2) identify key safety and action items, such as policy, enforcement, and/or design, and (3) target safety improvements for all roadway users.

DID YOU KNOW?

The City of Albuquerque uses a "Zero Emissions First" policy to replace fleet vehicles with low or zero-emissions alternatives.

²⁹ Data for on-road travel is estimated from MRCOG's travel demand forecast; rail from BNSF Railway and Amtrak Railroad financial reports, Aviation from EPA's National Inventory Data; and off-road transportation from EPA's National Emissions Inventory Data.

³⁰ "Together for Brothers" <https://www.togetherforbrothers.org>

At the state level, there is also a considered effort to advance clean transportation technology and infrastructure. On November 16th, 2023, New Mexico adopted the **advanced clean vehicle rules** which mandate that in model year 2026, 43% of all new light-duty passenger vehicles and up to 20% of all new commercial medium and heavy-duty trucks shipped to New Mexico auto dealerships must be zero-emission vehicles. These percentages gradually increase to 82% of light-duty passenger vehicles for model year 2032 and up to 75% of medium and heavy-duty trucks for model year 2035.

In addition, the New Mexico Construction Industries Division instituted an update in January 2024 to the New Mexico Residential and Commercial Energy Conservation Codes. These updates require the installation of minimum percentages of parking spaces with electric vehicle (EV) charging infrastructure and EV capable parking spaces for most new residential, commercial, and industrial developments throughout New Mexico.

Furthermore, in the most recent New Mexico legislative session, **House Bill 41: Clean Fuel Standards** and **House Bill 140: Clean Car Income Tax Credit** were passed and are currently awaiting the Governor's signature. If the former should be made into effect, it would establish a state-wide clean transportation fuel standard and provide consumers access to alternative fuel at competitive prices and lower emissions. For the latter, it would create a personal and corporate tax credit for clean cars and clean car charging units resulting in credits from \$400 for normal charging units to \$25,000 for fast-charging or fuel cell charging units.

DID YOU KNOW?

\$10 million was appropriated to the New Mexico Energy, Minerals and Natural Resources Department for the Climate Investment Center from the budget this session.

TASK FORCE RECOMMENDATIONS

The 2020 Public CAP Survey found that survey participants saw improving public transit and active transportation options within the city as the community's greatest priorities. Similarly, CAP Task Force deliberations yielded the group's shared recognition of how public transit is often the primary mode of transportation for frontline communities. Therefore, **public transit is the most highly prioritized mode for the CAP Task Force, as it is currently the most practical and affordable transportation option.**

Public transit was also buoyed as an effective means of reducing greenhouse gas emissions, increasing on-road safety and supporting public health. In regards to demand for public transit in Albuquerque, the CAP Task Force saw issues of safety, access and cultural norms as main barriers. The group's recommended strategies address these challenges and ultimately seek to increase public transit ridership, a vital component of an enduring and effective transit system.³¹

³¹ ABQ RIDE consistently strives to ensure the affordability of its services which are funded primarily through City taxes; around eight percent of services are supported by fares. ABQ RIDE enacted fare-free public transit at the start of the COVID-19 pandemic select demographics such as youth under the age of 18. Generally, Albuquerque's buses require 8-10 passengers in order for them to be effective greenhouse gas-reducing modes of transportation. Stephanie Dominguez and Andrew De Garmo. "ABQ Ride: Public Transportation and Climate Change." Powerpoint Presentation, CABQ Climate Action Task Force, November 4, 2020.

<https://www.cabq.gov/sustainability/documents/11-4-20-cabq-task-force-presentation-andrew-de-garmo.pdf>

CLEAN TRANSPORTATION PRIORITIES IN THE 2021 CLIMATE ACTION PLAN

Initiation NT: Near-Term (By 2022) MT: Mid-Term (By 2026) LT: Long-Term (By 2031)	Priority P: Primary S: Secondary	Constraints A: Awareness B: Behavior Change I: Investment P: Policy T: Technology & Infrastructure	Benefits AR: Adaptation & Resilience AQ: Air Quality CM: Climate Mitigation ED: Economic Development EQ: Equity Building HO: Health Outcomes QL: Quality of Life	Favorable Policy Environment *Policy Environments Change. This is solely based on the knowledge of the Task Force
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	Strategies	Phase	Priority	Constraints	AR	AQ	CM	ED	EQ	HO	QL	Policy	
Transit Access & Investment	Increase funding for public transit and invest in free public transit for transit dependent riders, prioritizing youth, students, older persons, and residents with low incomes.	MT	P	I,P		X			X	X	X		
			S	A,B,T	X		X	X					
	Treat public transportation as a public good, fund it effectively, and market it as a socially responsible and affordable option emphasizing rider safety and autonomy.	NT Ongoing	P	A,B,I,P		X	X		X				
			S	T	X			X		X	X		
	Reevaluate routes and increase access to transit, prioritizing low-income neighborhoods, seniors, and people with disabilities, also specifically target access to outlying neighborhoods, adjacent communities, and public green and open spaces.	NT	P	B,I,P						X	X	X	X
			S	A	X	X	X	X					
	Improve the "last mile" - the distance between public transportation and people's residence or workplace - with possible bike and ride sharing options.	LT	P	B,I,P						X	X	X	
			S	A,T	X	X	X	X					
Active Transportation & Transit Safety	Improve safety of buses and bus stops for vulnerable populations (e.g., women and children, people with disabilities, older persons) by improving lighting, visibility, protection from the elements, and epidemic-safe strategies.	MT	P	I,P	X				X	X	X		
			S	T		X	X	X					
	Invest in City-funded sidewalk improvement for safety and accessibility for all users and especially people with limited mobility.	MT	P	I					X	X	X		
			S	P,T	X	X	X	X					
	Prioritize equity, transparency and accountability when making investments to improve transportation safety.	MT Ongoing	P	A,B,P					X	X			
			S	I,T	X	X	X	X			X		
	Improve and create bike and walking infrastructure, especially in low-income and older neighborhoods.	LT	P	I,T					X	X	X		
			S	P	X	X	X	X					
Transit Public Education	Increase public education around greenhouse gas emissions that explain the positive impacts of walking, biking, and public transit (e.g., improved health, personal financial savings, decreased emissions, cleaner air, etc.), as well as the negative impacts of private transportation (e.g., health implications such as asthma, traffic congestion, etc.).	NT	P	B	X	X	X				X		
			S	A				X	X		X		
	Partner with the media to feature bus rider stories in an effort to combat fear and prejudice while highlighting advantages and accessibility.	NT	P	A,B	X				X		X		
			S			X	X	X		X			
Vehicle Emissions Reduction	Transition mass transit to zero emissions fuel sources.	MT	P	B,I,P,T	X	X	X						
			S	a				X		X	X		
	Sustain efforts to convert city fleet vehicles to electric where feasible.	MT	P	I	X		X						
			S	A,B,P,T		X		X		X	X		
	Promote rideshare options with electric vehicles, prioritizing increased options for frontline communities.	NT	P	A,B	X	X	X		X				
S							X		X	X			

Other forms of transportation also factored into the development of the CAP Task Force’s transportation strategies, showcasing how all climate-related actions must be both emissions-reducing and equity-increasing. Acknowledging the priorities of the 2020 CAP Public Survey, the CAP Task Force uplifted the need for active transportation infrastructure upgrades; this recommended strategy aligns with many of the efforts currently being advocated by Albuquerque’s Vision Zero campaign. The adoption of carbon-reducing vehicle technologies and their integration into frontline communities were also seen as opportunities to make Albuquerque a safer, more environmentally resilient and accessible city for all.

OVERVIEW OF WORKING GROUP MEASURES

The Working Group identifies a myriad of options for low or zero emissions transportation projects in the Albuquerque MSA. The majority are centered on fleet and equipment electrification, spurred by internal goals, favorable policy environments, and the cost gap between electric options and their conventional counterparts. Those electrification projects listed below qualify under the CPRG criteria because they are utilized in frontline communities (CT2 and CT6 through CT11). Implementing these projects would benefit general air quality in frontline communities but have limited direct benefits to the communities.

The measures that took a more direct approach to improving frontline communities are those that attempt to build out a connected active transportation network (CT3, CT4, and CT5) or address systemic barriers to effective public transportation (CT1). While these projects still have a low cost effectiveness for GHGe reduction potential, they do directly improve the lives of those in frontline communities. Furthermore, the Transit Oriented Development Project (CT1) takes a bold, innovative approach to addressing housing and transit cost and efficient land-use design.

All the measures in the table below center around or work towards one or more CAP Task Force recommendations for clean transportation. The table provides the strategy, general impact area, title, estimated GHGe reduction, and measure-specific cost effectiveness. Additional details for the following measures is included in Appendix D, which is organized by the measure short code (e.g., CT1) and title.

MEASURES

STRATEGY	IMPLEMENTATION MEASURE
<p>Transit-Oriented Development</p> <p><i>City of Albuquerque</i></p>	<p>CT1: Implementation of a public transit plaza and affordable housing development in Uptown Albuquerque.</p> <p>Total Funding Request: \$5,472,821</p> <p>\$/GHGe Reduction: \$11,184 / MT CO_{2e}</p>

STRATEGY	IMPLEMENTATION MEASURE
<p>Bicycle Safety Corridors <i>City of Albuquerque</i></p>	<p>CT2: Design and construction of bike lanes on San Pedro from Bell Ave to Claremont and a bike boulevard on Claremont from Richmond to Moon. Total Funding Request: \$4,500,000 \$/GHGe Reduction: \$210,743 / MT CO₂e</p>
<p>Multimodal Rail Trail <i>City of Albuquerque</i></p>	<p>CT3: Construction of final segment of active transportation trail in historic downtown neighborhoods. Total Funding Request: \$8,001,650 \$/GHGe Reduction: \$172,153 / MT CO₂e</p>
<p>Juan Tabo Connectivity Trail <i>Albuquerque City Council</i></p>	<p>CT4: Development of an active transportation trail connecting Tijeras Arroyo and Innovation Parkway. Total Funding Request: \$260,000 \$/GHGe Reduction: \$1,453,846 / MT CO₂e</p>
<p>Transit EV <i>City of Albuquerque</i></p>	<p>CT5: Purchase of electric vehicles for the City’s transit department which service frontline communities. Total Funding Request: \$23,735,000 \$/GHGe Reduction: \$9,991 / MT CO₂e</p>
<p>Municipal Fleet Electrification <i>City of Albuquerque</i></p>	<p>CT6: Purchase of electric vehicles for the City’s fleet which operate in frontline communities. Total Funding Request: \$7,957,395 \$/GHGe Reduction: \$21,896 / MT CO₂e</p>

STRATEGY	IMPLEMENTATION MEASURE
<p>College Fleet Electrification</p> <p><i>Central New Mexico Community College</i></p>	<p>CT7: Purchase of electric vehicles for Central New Mexico College, located in a LDAC census tract. Total Funding Request: \$1,584,000 \$/GHGe Reduction: \$2,167 / MT CO₂e</p>
<p>Aviation Shuttle Electrification</p> <p><i>City of Albuquerque</i></p>	<p>CT8: Purchase of electric shuttle buses for the Airport, located in a LIDAC census tract. Total Funding Request: \$1,210,000 \$/GHGe Reduction: \$4,736 / MT CO₂e</p>
<p>Electrification of Parks Equipment</p> <p><i>City of Albuquerque</i></p>	<p>CT9: Purchase of electric alternatives for Parks equipment used in LIDAC census tracts. Total Funding Request: \$1,414,048 \$/GHGe Reduction: \$6,057 / MT CO₂e</p>
<p>Balloon Fiesta Park Electrification</p> <p><i>City of Albuquerque</i></p>	<p>CT10: Purchase of electric vehicles and equipment at Balloon Fiesta Park. Total Funding Request: \$528,532 \$/GHGe Reduction: \$26,334 / MT CO₂e</p>
<p>Golf Cart Electrification</p> <p><i>City of Albuquerque</i></p>	<p>CT11: Purchase of electric golf carts to replace conventional equipment, located in a LIDAC census tract. Total Funding Request: \$400,000 \$/GHGe Reduction: \$18,232 / MT CO₂e</p>
<p>DC Fast Chargers</p> <p><i>Bernalillo County</i></p>	<p>CT12: Install two DC Fast Chargers: downtown and at Route 66 Visitors Center, with solar canopies. Total Funding Request: \$2,977,500 \$/GHGe Reduction: \$6,085 / MT CO₂e</p>

STRATEGY	IMPLEMENTATION MEASURE
<p>College Public Charging</p> <p><i>Central New Mexico Community College</i></p>	<p>CT13: Install publicly accessible Level 2 and Level 3 Fast Charging EV stations and infrastructure. Total Funding Request: \$800,000 \$/GHGe Reduction: \$1,510 / MT CO2e</p>
<p>Multi-Family Decarbonization</p> <p><i>MSA-Wide</i></p>	<p>SB2: Multi-faceted program to address energy burdens in low-income rental units. Total Funding Request: \$6,931,984 \$/GHGe Reduction: \$28 / MT CO2e</p>
<p>Community Center Efficiency & Education</p> <p><i>MSA-Wide</i></p>	<p>SB3: Sub-grant program to develop cooling and education centers to share sustainability best practices to front-line communities. Total Funding Request: \$8,054,300 \$/GHGe Reduction: \$2,157 / MT CO2e</p>



WASTE & RECYCLING

Waste accounts for about 4% of the City of Albuquerque's GHGe for a total of 243,627 MTCO₂E annually. There are two forms of waste included in this sector: solid waste and wastewater treatment.

Solid waste is garbage or trash thrown away by residents and businesses, typically sent to the landfill. In the Albuquerque MSA, as of writing this document, there are seven permitted and open landfills, two of them are permitted for special materials (i.e., asbestos, construction and demolition waste). Many of these landfills accept materials from outside the Albuquerque MSA to support communities that do not have a closer option. Municipal solid waste from Albuquerque is sent to the Cerro Colorado Landfill, located on the top of the west downtown area.

Each year, the Cerro Colorado Landfill accepts about 525,000 tons of residential and commercial trash.³² This waste will release chemicals into the atmosphere and surrounding land as it decomposes. In particular, organic waste can form methane as the material breaks down. Methane is a potent GHG, so to reduce these emissions, methane from the landfill is captured, transported by pipeline two miles, and sold to Bernalillo County's Metropolitan Detention Center where it is used to heat water, reducing the demand for fossil fuel at that site.

DID YOU KNOW?

over 525,000 tons of residential and commercial trash is landfilled in the MSA each year.



³² City of Albuquerque. Solid Waste Department. Retrieved on November 6, 2020 from <https://www.cabq.gov/solidwaste/trash-collection/cerro-colorado-landfill>

Greenhouse gas emissions are also created by treating wastewater at Albuquerque Water Authority's Southside Wastewater Reclamation Plant. Each day, the plant treats about 55 million gallons of wastewater.³³ As the wastewater is treated and breaks down, methane and other GHGs are generated. Methane is captured from organic waste and used to generate about 6.6 megawatt-hours (MWh) of electricity at the site, about 70% of the plant's energy needs. Stabilized biosolids are dewatered and composted at the Soil Amendment Facility.³⁴

Reducing emissions created by waste often relies on diverting organic waste sent to the landfill. In the U.S., recycling and composting diversion rates seemed to plateau in the 2010s.³⁵ However, potentially recyclable and compostable materials still account for over half of our waste on average,³⁶ and environmental impacts of continuing to send the same amount of materials to the landfill is unsustainable. Recycling, composting and reducing the use of paper waste and other organic materials are some ways of reducing emissions created by organic waste breakdown.³⁷

Food waste is often a major contributor to waste GHGe, with a recent report citing that as much as 10% of human-induced GHGe globally.³⁸ In 2015, EPA even set a goal to reduce food loss and waste by 50% by 2030.³⁹



³³ Albuquerque Bernalillo County Water Utility Authority. Water Resources Education. Retrieved on November 6, 2020 from https://abcwua.org/education/30_SWRP.html.

³⁴ "Compost del Rio Grande," 505 Outside, accessed February 20, 2024, <https://www.505outside.com/2021/11/03/compost-del-rio-grande-2/>.

³⁵ "National Overview: Facts and Figures on Materials, Wastes and Recycling," U.S. Environmental Protection Agency, accessed February 19, 2024, <https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/national-overview-facts-and-figures-materials#Trends1960-Today>.

³⁶ "National Overview: Facts and Figures on Materials, Wastes and Recycling," U.S. Environmental Protection Agency, accessed August 2023, <https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/national-overview-facts-and-figures-materials#Generation>.

³⁷ U.S. Environmental Protection Agency. Climate Change and Municipal Solid Waste. Retrieved on November 6, 2020 from <https://archive.epa.gov/wastes/conserve/tools/payt/web/html/factfin.html>.

³⁸ Allison Aubrey, National Public Radio. How to Reduce Food Waste. Retrieved on November 6, 2020 from <https://www.npr.org/2019/12/10/786867315/how-to-reduce-food-waste>.

³⁹ "United States 2030 Food Loss and Waste Reduction Goal," U.S. Environmental Protection Agency, accessed February 19, 2024, <https://www.epa.gov/sustainable-management-food/united-states-2030-food-loss-and-waste-reduction-goal>

Why is food waste such an important component of GHGs? Like other products, GHGs are generated at each stage of the product pathway. Also, a significant portion of food is not consumed. The EPA estimates one-third of the food produced in the U.S. is not eaten,⁴⁰ and NRDC (Natural Resources Defense Council) estimated that about 112,600 tons of food is wasted in the Albuquerque metro area annually.⁴¹ Nationally, food waste makes up 58% of methane emissions from municipal solid waste landfills, and 61% of the methane generated by food waste avoids being captured, often because the gas is generated before the landfill gas collection system is installed or expanded.⁴² Planning purposefully around food consumption to prevent food waste, committing to food reuse and composting when possible are some recommended best practices. EPA outlines additional best practices in the Wasted Food Scale, released October 2023.⁴³

A variety of communities in the Albuquerque MSA have been working on waste reduction and recycling efforts. In the last year, four new community composting systems were installed (one in Isleta Pueblo, one in the Village of Los Ranchos, and two in Albuquerque). Progress towards the City of Albuquerque's goals has been documented in annual implementation reports, the 2022 CAP Implementation Report and the 2023 Implementation Report. Since completing the 2023 report, the City of Albuquerque partnered with FUSE Corps to host a fellow who is working with stakeholders and community members to design a citywide equity-focused composting program. Details on other major projects, resources, and educational materials are provided on the City's website.

TASK FORCE RECOMMENDATIONS

For the CAP Task Force, discussions on waste and recycling reflected the group's appreciation of circular economies, concern for equitable economic development, and awareness of the nuances of climate action within frontline communities. The CAP Task Force discussed plastics pollution policy, community composting, reuse programs and local job creation as means of improving Albuquerque's waste-related sustainability. Additionally, the CAP Task Force called for the transformative action that is the comprehensive reimagining of waste systems. For example, if fewer items were created as or considered to be disposable, communities could reduce waste production and focus on ensuring that potentially disposable products are recycled or repaired into items of value instead of entering the landfill.

⁴⁰ "From Farm to Kitchen: The Environmental Impacts of U.S. Food Waste," U.S. Environmental Protection Agency, accessed February 19, 2024,

<https://www.epa.gov/land-research/farm-kitchen-environmental-impacts-us-food-waste>.

⁴¹ "Food Waste & Rescue Potential in Albuquerque," NRDC, accessed February 19, 2024,

<https://www.cabq.gov/sustainability/documents/abq-calculator-two-pager.pdf>.

⁴² U.S. Environmental Protection Agency, Quantifying Methane Emissions from Landfilled Food Waste, WPA-600-R-23-064 (Washington, DC, October 2023),

https://www.epa.gov/system/files/documents/2023-10/food-waste-landfill-methane-10-8-23-final_508-compliant.pdf.

⁴³ "Wasted Food Scale," U.S. Environmental Protection Agency, accessed February 19, 2024,

<https://www.epa.gov/sustainable-management-food/wasted-food-scale>.

The CAP Task Force discussions on waste did not shy away from acknowledging and assessing waste’s complex entanglement with issues of sustainability and climate justice. In hopes of respectfully motivating and involving community residents with local waste reduction efforts, the group discussed how to encourage reductions in waste production while ensuring that frontline community members gain from the tangible benefits of these actions. Ultimately, the group’s recommendations present a vision of Albuquerque in which more products are repurposed instead of going to the landfill, and that recognizes the importance of putting the onus of change on corporations and systems rather than individual community members. Themes related to these strategies harken back to the CAP Task Force’s guiding principle to move beyond policies that focus primarily on the role and responsibility of individuals and look at larger systemic issues.

WASTE AND RECYCLING PRIORITIES IN THE 2021 CLIMATE ACTION PLAN

		Initiation NT: Near-Term (By 2022) MT: Mid-Term (By 2026) LT: Long-Term (By 2031)	Priority P: Primary S: Secondary	Constraints A: Awareness B: Behavior Change I: Investment P: Policy T: Technology & Infrastructure	Benefits AR: Adaptation & Resilience AQ: Air Quality CM: Climate Mitigation ED: Economic Development EQ: Equity Building HO: Health Outcomes QL: Quality of Life	Favorable Policy Environment *Policy Environments Change. This is solely based on the knowledge of the Task Force						
Strategies	Phase	Priority	Constraints	AR	AQ	CM	ED	EQ	HO	QL	Policy	
Recycling, Composting, & Waste Reduction	Fund physical infrastructure and coordination for neighborhood and school composting, including educational programs about how to compost and benefits for greenhouse gas reduction, soil health, regenerative agriculture, native crops, local foods and plant-based diets.	MT	P	B,I,P	X	X	X		X	X		
			S	A,T				X			X	
	Promote methods of recycling, reuse, and composting in frontline communities -- highlighting their health and environmental benefits with the support of community-based educators (i.e., promotoras).	NT Ongoing	P	A,B,I					X	X		
			S	P,T	X	X	X	X			X	
	Use public policy to reduce plastic waste in the public sector.	NT Ongoing	P	B,P	X		X					
			S	A,I				X		X	X	
	Increase accountability for corporate producers and polluters, including but not limited to the reduction of construction and other waste and increased electronic and textile recycling.	MT Ongoing	P	B,P,T		X	X	X	X	X	X	
			S	A,I		X		X		X	X	

OVERVIEW OF WORKING GROUP MEASURES

The primary measures submitted in this sector focus on food waste prevention and organic matter diversion (WR1 and WR2). Food waste prevention and organic matter diversion through composting are important components of three measures introduced in the sustainable buildings section (SB1, SB2, and SB3). Through education and infrastructure investments, these measures directly benefit low-income families through financial savings by preventing food loss. Secondary measures submitted in this section (CN1 and CN2) have direct benefits that reduce local flooding and improve water quality while also providing a myriad of other benefits. These measures are not directly housed under this sector because stormwater flows directly into the river and is not treated in the Southside Wastewater Reclamation Plant. See [Climate Conscious Neighborhoods](#) and [Appendix E](#) for more information.

All the measures in the table below center around or work towards one or more CAP Task Force recommendations for waste and recycling. The table provides the strategy, general impact area, title, estimated GHGe reduction, and measure-specific cost effectiveness. Additional details for the following measures are included in [Appendix D](#), which is organized by the measure short code (e.g., WR1) and title.

MEASURES

STRATEGY	IMPLEMENTATION MEASURE
<p>Food Waste Prevention & Composting</p> <p><i>MSA-Wide</i></p>	<p>WR1: Scalable food waste prevention program targeted at small, local restaurants.</p> <p>Total Funding Request: \$640,752</p> <p>\$/GHGe Reduction: \$735 / MT CO₂e</p>
<p>Tribal Landfill Diversion</p> <p><i>San Felipe</i></p>	<p>WR2: Waste diversion infrastructure investment for tribal entities</p> <p>Total Funding Request: \$518,061</p> <p>\$/GHGe Reduction: \$41 / MT CO₂e</p>
<p>Municipal Green Waste</p> <p><i>City of Albuquerque</i></p>	<p>WR3: Purchase of Bioreactor to divert park and open space green matter from the landfill.</p> <p>Total Funding Request: \$438,000</p> <p>\$/GHGe Reduction: \$3,626 / MT CO₂e</p>

STRATEGY	IMPLEMENTATION MEASURE
<p>Community Energy Efficiency</p> <p><i>MSA-Wide</i></p>	<p>SB1: Expansion of low income residential decarbonization across the MSA.</p> <p>Total Funding Request: \$22,968,690</p> <p>\$/GHGe Reduction: \$29 / MT CO₂e</p>
<p>Multi-Family Decarbonization</p> <p><i>MSA-Wide</i></p>	<p>SB2: Multi-faceted program to address energy burdens in low-income rental units.</p> <p>Total Funding Request: \$6,931,984</p> <p>\$/GHGe Reduction: \$28 / MT CO₂e</p>
<p>Community Center Efficiency & Education</p> <p><i>MSA-Wide</i></p>	<p>SB3: Sub-grant program to develop cooling and education centers to share sustainability best practices to front-line communities.</p> <p>Total Funding Request: \$8,054,300</p> <p>\$/GHGe Reduction: \$2,157 / MT CO₂e</p>
<p>County Green Stormwater Infrastructure</p> <p><i>Bernalillo County</i></p>	<p>CN1: Installation of street trees and green stormwater infrastructure in frontline communities in the South Valley.</p> <p>Total Funding Request: \$1,553,899</p> <p>\$/GHGe Reduction: \$11,994 / MT CO₂e</p>
<p>City Green Stormwater Infrastructure</p> <p><i>City of Albuquerque</i></p>	<p>CN2: Installation of street trees and green stormwater infrastructure in frontline communities across Albuquerque Metro.</p> <p>Total Funding Request: \$3,000,000</p> <p>\$/GHGe Reduction: \$227,964/ MT CO₂e</p>



ECONOMIC DEVELOPMENT

As Albuquerque, like many other communities across the globe, mobilizes and bolsters efforts to tackle the climate crisis, the redefinition of local economic activity will factor significantly into climate mitigation. Although estimates show that the U.S. leads in the global green economy, numerous initiatives have identified there is still untapped potential to create economic growth by transitioning from extractive to regenerative economic activities.⁴⁴ Strong examples of potential job growth and investment opportunities include waste reuse, local food and agriculture, energy efficiency and renewable energy among others.⁴⁵ As New Mexico scales up its renewable energy adoption, estimates project that, by 2030, these actions could create up to 8,830 new jobs in New Mexico's clean energy economy and stimulate over \$4.6 billion of new investment.⁴⁶

Efforts to improve local, sustainable and equitable economic development, as well as community-engaged governance are visible in recent initiatives from the City of Albuquerque. The City's Jobs Training Albuquerque (JTA) workforce development program gives preference to companies in the renewable and alternative energy product manufacturing industry.⁴⁷ Additionally, the City's Rail Yards redevelopment work focuses on seeking out and listening to community voices when undertaking projects meant to enact policy change, develop new infrastructure or create new jobs.⁴⁸ Furthermore, state-level deliberations are solidifying strategies for effectively achieving a Just Transition away from natural resource extraction for New Mexico's economy (i.e., oil, gas and mineral extraction).⁴⁹

⁴⁴ As of 2019, the U.S. green economy is estimated to generate \$1.3 trillion in annual sales revenue and to employ nearly 9.5 million workers – 4% of working age people in the U.S. Georgeson, Lucien and Mark Maslin. "Estimating the Scale of the US Green Economy within the Global Context." Palgrave Communications 5, no. 121 (2019). <https://www.nature.com/articles/s41599-019-0329-3#auth-1>

⁴⁵ New Mexico Department of Workforce Solutions. New Mexico Clean Energy Workforce Development Study. June 2020. https://www.dws.state.nm.us/Portals/0/DM/LMI/NM_Clean_Energy_Workforce_Report.pdf; Global Alliance for Incinerator Alternatives. "Zero Waste and Economic Recovery: The Job Creation Potential of Zero Waste Solutions." Beyond Plastics, February 16, 2021. <https://www.beyondplastics.org/reports/zero-waste-economic-recovery>; "Energy Efficiency Jobs Growing Across the Southwest." Southwest Energy Efficiency Project, November 21, 2023. <https://www.swenergy.org/energy-efficiency-jobs-growing-across-the-southwest>; Grow New Mexico. Albuquerque Food and Agriculture Plan. City of Albuquerque and the Thornburg Foundation, February 2019.

⁴⁶ Long, Noah and Arjun Krishnaswami. "50% Renewable Energy Would Create Jobs, Investment in NM." National Resources Defense Council, January 16, 2019. <https://www.nrdc.org/experts/noah-long/50-renewable-energy-would-create-jobs-investment-nm>

⁴⁷ "Job Training Albuquerque." Central New Mexico Community College, n.d. <https://www.cnm.edu/depts/workforce-training/job-training-albuquerque>

⁴⁸ Isaac, Claudia B. Report on Equitable Development and Community Benefits in the Albuquerque Rail Yards "Draft." City of Albuquerque, June 12, 2019. <https://www.cabq.gov/railyards/documents/equitabledevelopment-companion-report-draft.pdf>

⁴⁹ New Mexico's 2021 legislative session saw the passing of Senate Bill 112, Sustainable Economy Task Force, a state-level legislative reflection of the task force's goals for the Albuquerque area. The bill funds the creation of an expert- and community member-task force on the future of New Mexico's energy transition. "Sustainable Economy Task Force." S.B. 112, 55th Legislature (New Mexico 2021). <https://www.nmlegis.gov/Sessions/21%20Regular/bills/senate/SB0112.pdf>

Due to the Biden Administration’s efforts to update the country’s infrastructure, there is an enormous, once-in-a-lifetime amount of federal funding currently available. While these funds offer an incredible opportunity for states, tribes, municipalities, and community groups, however, the federal match requirement can be a significant barrier to accessing federal funds. This legislative session, the State took a momentous step to remove this pitfall. Awaiting signing from the Governor is House Bill 177 NM Match Fund which creates a \$75 million annual and non-reverting fund that can provide the requisite “local match” or “state match” that many of these federal funding opportunities require.

DID YOU KNOW?

If signed, New Mexico will be only the third state in the nation to develop a Match Fund. Without this fund, New Mexico risks leaving billions of federal dollars on the table.

TASK FORCE RECOMMENDATIONS

The CAP Task Force maintained that community-building and equitable economic development are integral components of effective climate change mitigation. Although economic activity has often been cited as a cause of widespread environmental degradation, the CAP Task Force also saw it as a potential means of repairing environmental harms and supporting local communities. In the group’s discussions, the guiding principle outlining economic development recommendations intended to leverage and direct funds to support reparations efforts to redress harms caused by environmental injustice to frontline communities. Central to this belief is the importance of localized, community-based job creation – a strategy that could help to boost community interest in sustainability and reduce transportation-related issues by averting the need for long commutes.

The group strongly voiced the need to enact economic policies that align with Just Transition principles, such as developing economic activity that supports both environmental and worker health. The CAP Task Force emphasized that there were many employment and investment opportunities that are sustainable and celebrate – rather than exploit – environmental systems. Some of the specific sectors identified in the following strategies include local food and agriculture, waste, recycling and renewable energy. Finally, the group shared that just as important as opportunities for growth and investment are the ways in which these opportunities are rooted in equitable partnerships.



ECONOMIC DEVELOPMENT PRIORITIES IN THE 2021 CLIMATE ACTION PLAN

Initiation	Priority	Constraints	Benefits	Favorable Policy
NT: Near-Term (By 2022) MT: Mid-Term (By 2026) LT: Long-Term (By 2031)	P: Primary S: Secondary	A: Awareness B: Behavior Change I: Investment P: Policy T: Technology & Infrastructure	AR: Adaptation & Resilience AQ: Air Quality CM: Climate Mitigation ED: Economic Development EQ: Equity Building HO: Health Outcomes QL: Quality of Life	Environment *Policy Environments Change. This is solely based on the knowledge of the Task Force

	Strategies	Phase	Priority	Constraints	AR	AQ	CM	ED	EQ	HO	QL	Policy	
Economic Investment	Provide community and economic development opportunities while restoring the land, water, and air while investing in members of frontline, underrepresented, and economically disadvantaged communities and local infrastructure.	MT Ongoing	P	A,B,I,P	X			X	X		X		
			S			X	X			X			
	Localize systems of production, for example food and agriculture, to reduce transportation time and emissions.	NT Ongoing	P	B,P,T	X			X			X		
			S	A,I		X	X		X	X			
	Strengthen our local food system, shorten the supply chain, reduce greenhouse gas emissions, and support the local economy by increasing community gardens and promoting local farm-to-fork culinary tourism in frontline communities through coordinated community education and collaboration.	NT Ongoing	P	I,P,T	X	X		X	X			X	
			S	A,B			X				X		
Job Creation in Frontline Communities	Provide community and economic development opportunities while restoring the land, water, and air and investing in frontline, underrepresented, and economically-disadvantaged communities and local infrastructure.	MT Ongoing	P	I,P	X			X	X		X		
			S	A,B		X	X			X			
	As a workforce development strategy, co-create jobs with family-supporting wages in frontline communities that have historically experienced systematic underinvestment and disinvestment.	MT Ongoing	P	I,P	X			X	X			X	
			S	A,B		X	X			X	X		
	Develop community and economic development opportunities that mitigate climate change and increase human-nature interaction via local recycling efforts, processing yard waste to compost, earn-while-you learn and apprenticeship opportunities for solar and community solar installation, land revitalization for community gardens (using City-owned vacant lots) and other green redevelopment efforts.	MT Ongoing	P	B,I,P	X			X	X				
			S	A		X	X			X	X		

OVERVIEW OF WORKING GROUP MEASURES

Initially, the CPRG Working Group did not submit any measures that specifically addressed economic development. While many of the proposed measures would help create jobs through subcontracted work and development, there was a clear need for concerted effort to improve these benefits. The following measures take a first step at addressing this gap. Inspired by community engagement sessions, additional mechanisms such as procurement policies, education and outreach, and the expansion of existing workforce development programs.

The table below provides the strategy, general impact area, title, estimated GHGe reduction, and measure-specific cost effectiveness. Additional details for the following measures are included in Appendix D, which is organized by the measure short code (e.g., SB1) and title.

MEASURES

STRATEGY	IMPLEMENTATION MEASURE
<p>Multi-Family Decarbonization</p> <p><i>MSA-Wide</i></p>	<p>SB2: Multi-faceted program to address energy burdens in low-income rental units.</p> <p>Total Funding Request: \$6,931,984</p> <p>\$/GHGe Reduction: \$28 / MT CO₂e</p>
<p>Community Center Efficiency & Education</p> <p><i>MSA-Wide</i></p>	<p>SB3: Sub-grant program to develop cooling and education centers to share sustainability best practices to front-line communities.</p> <p>Total Funding Request: \$8,054,300</p> <p>\$/GHGe Reduction: \$2,157 / MT CO₂e</p>
<p>Food Waste Prevention & Composting</p> <p><i>MSA-Wide</i></p>	<p>WR1: Scalable food waste prevention program targeted at small, local restaurants.</p> <p>Total Funding Request: \$640,752</p> <p>\$/GHGe Reduction: \$735 / MT CO₂e</p>
<p>Transit-Oriented Development</p> <p><i>City of Albuquerque</i></p>	<p>CT1: Implementation of a public transit plaza and affordable housing development in Uptown Albuquerque.</p> <p>Total Funding Request: \$5,472,821</p> <p>\$/GHGe Reduction: \$11,184 / MT CO₂e</p>



EDUCATION & AWARENESS

Undoubtedly, the education and awareness communities receive and maintain are fundamental drivers of current and future action. Whether messaging is shared from families, friends, media or schools, the information people receive and how it is interpreted can catalyze change. However, education and public messaging on sustainability topics face unique challenges. Issues such as climate change, water, soil and air quality are complex, with technical barriers to understanding and complicated takeaways. Effective marketing often relies on simple, actionable behavior changes, but combating climate change requires large, systemic reforms. All sustainability messaging difficulties are compounded by deliberate efforts to deny and refute the scientific findings identifying climate change and its impacts.⁵⁰

In regards to climate change and public education, lessons in New Mexico's public schools are informed by both national and state-specific standards, in addition to many teachers' incorporations of outdoor education, classroom experimentation and innovative field trips. Adopted by New Mexico in 2018, the Next Generation Science Standards incorporate climate science- and sustainability-related content at every K-12 grade level, with explicit mentions of climate change in middle and high school curricula.⁵¹ Additionally, the New Mexico STEM Ready! Science Standards present state-specific standards that prompt students to consider local sustainability-related issues like energy production and human-environment relations.⁵² In Albuquerque, sustainability-related curricula items include the district-wide school gardens program and Albuquerque Public School's (APS) focus on energy conservation.⁵³

⁵⁰ Cook, John, Geoffrey Supran, Stephan Lewandowsky, Naomi Oreskes, and Ed Maibach. "America Misled: How the Fossil Fuel Industry Deliberately Misled Americans About Climate Change." George Mason University Center for Climate Change Communication, October, 2019.

https://www.climatechangecommunication.org/wp-content/uploads/2019/10/America_Misled.pdf

⁵¹ "Climate Change in the Next Generation Science Standards (K-12)." Climate Education Research, 2013.

<http://www.climateedresearch.org/publications/2013/Climate-Change-NGSS.pdf>

⁵² "NM STEM Ready! Science Standards." New Mexico Public Education Department, 2018.

<https://webnew.ped.state.nm.us/wp-content/uploads/2018/05/NM-6-Specific-Standards-Framework.pdf>

⁵³ APS is the largest school district in New Mexico serving over 75,000 students across an area of 1,200 square miles. The district's school gardens program supports over 90 gardens which are incorporated into curricula by individual teacher efforts aided by local Master Gardeners and a district-wide garden specialist. These gardens are used as interdisciplinary vehicles for outdoor education of all types, with sample lesson plans focusing on Indigenous New Mexican agricultural knowledge and climate change.

TASK FORCE RECOMMENDATIONS

The CAP Task Force’s deliberations on issues pertaining to sustainability education and awareness revealed common themes that highlighted the importance of broadly increasing overall messaging and education, as well as tailoring outreach to resonate with specific communities to inspire individual and collective efforts. As a guiding principle, the CAP Task Force agreed to **prioritize culturally responsive public education efforts that are multi-media, multi-generational, multi-lingual and include the arts and sciences**. Another broad intent of the group was to empower large-scale change via the sharing of information that cuts through complexity and notes the real consequences of climate inaction. It is the CAP Task Force’s hope that – collectively – media attention, the collection and sharing of data, commitment from regional leaders and public education can all act in concert to fuel further and deepened responses to the climate crisis.

OVERVIEW OF WORKING GROUP MEASURES

In line with CAP Task Force recommendations, four of the measures submitted specifically address the need for enhanced education and awareness. Within the MSA, there exists many public resources and programs that benefit frontline communities, but often overlapping and systemic barriers prevent these families from seeing the full benefit of these programs. To overcome this, the following measures build off of lessons from successful non-profit-public partnerships. Specifically, these measures employ and rely on the expertise of frontline community members and organizers to bring these programs to households in their own community.

The table below provides the strategy, general impact area, title, estimated GHGe reduction, and measure-specific cost effectiveness. Additional details for the following measures are included in Appendix D, which is organized by the measure short code (e.g., SB2) and title.

EDUCATION AND AWARENESS PRIORITIES IN THE 2021 CLIMATE ACTION PLAN

		Initiation NT: Near-Term (By 2022) MT: Mid-Term (By 2026) LT: Long-Term (By 2031)	Priority P: Primary S: Secondary	Constraints A: Awareness B: Behavior Change I: Investment P: Policy T: Technology & Infrastructure	Benefits AR: Adaptation & Resilience AQ: Air Quality CM: Climate Mitigation ED: Economic Development EQ: Equity Building HO: Health Outcomes QL: Quality of Life									Favorable Policy Environment *Policy Environments Change. This is solely based on the knowledge of the Task Force
Strategies		Phase	Priority	Constraints	AR	AQ	CM	ED	EQ	HO	QL	Policy		
Climate Emergency Mobilization Efforts	Annually convene regional climate action summit led by frontline and Indigenous communities.	NT Ongoing	P	A,B					X					
			S	I	X					X	X			
	Routinely monitor progress toward activities that impact greenhouse gas reductions (e.g., new tree plantings, City and utility renewable energy usage and production, etc.) by creating an accurate, timely and accessible data dashboard on the City of Albuquerque Sustainability Office website.	NT Ongoing	P	I,T		X	X							X
			S	A	X				X	X	X			
	Publish daily vehicle emissions data (actual or estimated) and correlate it with daily ozone and particulate pollution data. Allow for visualization of numerical data through the use of a color-coded map.	NT	P	I,T	X		X							
			S	A,B		X	X		X	X				
	Partner with local media to launch a climate action public service announcement campaign to educate on climate change challenges and opportunities for action.	NT Ongoing	P	I			X							
			S	A,B	X			X	X	X	X			
Public Sustainability Education	Partner with Albuquerque Public Schools (APS) to make traditional ecological knowledge, climate change and school gardens part of all APS curricula.	MT	P	A,B,P	X							X		
			S	I,T			X		X	X				
	Invest in public education campaigns about mitigating climate change in partnership with frontline communities on a wide range of climate issues including but not limited to: fossil fuels, carbon dioxide and other greenhouse gases, waste and recycling, climate impacts on ecosystem health, consequences of bio-diversity loss, green jobs, embodied energy, contributions of animal agriculture to greenhouse gases and deforestation, green washing and tainted water supplies.	NT Ongoing	P	A,B,I			X		X	X				
			S	P,T	X	X		X				X		
Educate residents about the energy and water nexus, as well as waste generation and consumption, to support education campaigns and reduce waste in both the public and private sectors.	NT Ongoing	P	A,B,I	X								X		
		S	P,T			X	X	X	X					

MEASURES

STRATEGY	IMPLEMENTATION MEASURE
<p>Community Energy Efficiency</p> <p><i>MSA-Wide</i></p>	<p>SB1: Expansion of low income residential decarbonization across the MSA. Total Funding Request: \$22,968,69 \$/GHGe Reduction: \$29 / MT CO2e</p>
<p>Multi-Family Decarbonization</p> <p><i>MSA-Wide</i></p>	<p>SB2: Multi-faceted program to address energy burdens in low-income rental units. Total Funding Request: \$6,931,984 \$/GHGe Reduction: \$28 / MT CO2e</p>
<p>Community Center Efficiency & Education</p> <p><i>MSA-Wide</i></p>	<p>SB3: Sub-grant program to develop cooling and education centers to share sustainability best practices to front-line communities. Total Funding Request: \$8,054,300 \$/GHGe Reduction: \$2,157 / MT CO2e</p>
<p>Food Waste Prevention & Composting</p> <p><i>MSA-Wide</i></p>	<p>WR1: Scalable food waste prevention program targeted at small, local restaurants. Total Funding Request: \$640,752 \$/GHGe Reduction: \$735 / MT CO2e</p>



CLIMATE CONSCIOUS NEIGHBORHOODS & RESOURCES

As a semi-arid, high-desert urban area, the Albuquerque MSA has always felt the constraints of water scarcity and heat. The advancement of climate change compounds these existing challenges and requires adaptation to new conditions. Looking to the future, projections show that climate-driven changes to the region will result in decreases in water availability, a rise in summer wildfires and extreme heat, among other impacts.⁵⁴ The Albuquerque MSA is already feeling these effects: the last decade has been the warmest on record with the observed number of extremely hot days (at or above 100°F) greater than 17 days per year.

Local frontline communities are at heightened risk of heat-related illnesses during these instances of unprecedented heat.⁵⁵ Preparing for impending climate change impacts in Albuquerque requires increased attention to conserving and protecting water resources, ensuring sustainable development and increasing trees, green spaces and vegetation.

Challenges spurred by climate change illustrate the interconnectedness of our resources and the need to thoughtfully strategize their use. Greenhouse gas emissions can be mitigated by increasing tree canopy and green spaces, effectively creating a carbon sink and reducing heat.⁵⁶ However, planting efforts must also strike a delicate balance with available water resources and resources for maintenance of new landscapes. Such balance is seen in current Albuquerque tree planting and water conservation initiatives that work in tandem. For example, in the recently launched Let's Plant Albuquerque campaign, a broad coalition of government, community and educational organizations formed a unified campaign to promote community tree plantings and share public resources to increase "climate-ready" trees and plants that use less water.⁵⁷

DID YOU KNOW?



91% of Albuquerque's population live within a half-mile of a park.

⁵⁴ United States Environmental Protection Agency. What Climate Change Means for New Mexico. EPA 430-F-16-033. August 2016. <https://nepis.epa.gov/Exe/tiff2png.exe/P100QVA0.PNG?-r+75+-g+7+D%3A%5CZYFILES%5CINDEX%20DATA%5C16THRU20%5CTIFF%5C00000053%5CP100QVA0.TIF>
<https://nepis.epa.gov/Exe/tiff2png.exe/P100QVA0.PNG?-r+75+-g+7+D%3A%5CZYFILES%5CINDEX%20DATA%5C16THRU20%5CTIFF%5C00000053%5CP100QVA0.TIF>

⁵⁵ National Oceanic and Atmospheric Administration. New Mexico. National Centers for Environmental Information, State Climate Summaries 142-NM. May 2019. <https://statesummaries.ncics.org/downloads/NMscreen-hi.pdf>

⁵⁶ "Using Trees and Vegetation to Reduce Heat Islands." United States Environmental Protection Agency, n.d. <https://www.epa.gov/heatislands/using-trees-and-vegetation-reduce-heat-islands>

⁵⁷ "Let's Plant ABQ" brings together Tree New Mexico, the Albuquerque Bernalillo County Water Utility Authority (ABCWUA), Bernalillo County, New Mexico State University Cooperative Extension Service, The Nature Conservancy, the Dakota Tree Project, New Mexico State Forestry Division, and the City of Albuquerque Parks and Recreation Department. "City Tree Planting Alliance to Boost Albuquerque Urban Forest." City of Albuquerque, n.d. <https://www.cabq.gov/parksandrecreation/news/city-tree-planting-alliance-to-boost-albuquerque-urban-forest>



TASK FORCE RECOMMENDATIONS

The CAP Task Force’s conversations on the myriad of topics in this section presented the opportunity to envision an Albuquerque of dynamic climate justice, greenhouse gas mitigation efforts and future climate adaptation. In alignment with the priorities highlighted in the CAP Public Survey, the CAP Task Force identified additional supports for increasing trees, vegetation and citywide community gardens. Guided by their agreed-upon principle to **protect and respect agricultural land and water use**, the CAP Task Force strategized deeply on the future potential of additional green infrastructure and water protection efforts, acknowledging actions such as increasing mulch and water reuse practices to mitigate heat and conserve water. Finally, CAP Task Force strategies called for the preservation and expansion of wetlands and green spaces on the conditions that such initiatives **use equity and access to prioritize future open space and park development or rehabilitation**.⁵⁸

The CAP Task Force also observed that future development must also be carefully planned to prevent further strain on resources and contributions to sprawl and transportation-driven emissions. As Albuquerque is not immune to environmental justice issues, the CAP Task Force stressed how past land use and housing practices have created present-day inequities.⁵⁹ The CAP Task Force therefore urged citywide entities to create greater equity standards and practices to prevent clustering of locally undesirable land uses in frontline communities. The CAP Task Force also sought to ensure that planning processes are taken in partnership with, rather than on or for, frontline communities, referencing Valle de Oro National Wildlife Refuge’s community engagement model as inspiration.⁶⁰

⁵⁸ This guiding principle is in alignment with findings by the Wilderness Society on disparities in green space distribution and access in Albuquerque. Next Stop: Equitable Access. The Wilderness Society, 2020.

<https://www.wilderness.org/articles/blog/report-albuquerque-park-access-lacking-vulnerable-communities-expanded-transit-could-help>

⁵⁹ “Database: Racial Covenants.” KRQE. November 10, 2020

<https://www.krqe.com/news-resources/racial-covenants-database>

⁶⁰ Valle de Oro’s community engagement model is oriented around both the U.S. Fish and Wildlife Service’s Standards of Excellence for Urban National Wildlife Refuges – which stress the importance of community connection, equity and accessibility – and their own work in the community of Mountain View. The Refuge’s non-profit partner, Friends of Valle de Oro, has demonstrated their commitment to equitable access by surveying the local Mountain View community about how the refuge could best serve community needs. Environmental and Economic Justice Strategic Plan. Valle de Oro National Wildlife Refuge, April 2017.

<https://friendsofvalledeoro.org/wp-content/uploads/2020/03/VdO-Environmental-and-Economic-Justice-StrategicPlan-April-2017.pdf>



CLIMATE CONSCIOUS NEIGHBORHOODS PRIORITIES IN THE 2021 CLIMATE ACTION PLAN

Initiation NT: Near-Term (By 2022) MT: Mid-Term (By 2026) LT: Long-Term (By 2031)	Priority P: Primary S: Secondary	Constraints A: Awareness B: Behavior Change I: Investment P: Policy T: Technology & Infrastructure	Benefits AR: Adaptation & Resilience AQ: Air Quality CM: Climate Mitigation ED: Economic Development EQ: Equity Building HO: Health Outcomes QL: Quality of Life	Favorable Policy Environment *Policy Environments Change. This is solely based on the knowledge of the Task Force
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	Strategies	Phase	Priority	Constraints	AR	AQ	CM	ED	EQ	HO	QL	Policy	
Greening Efforts in Frontline Communities	Prioritize development and maintenance of green spaces, community gardens and food forests within a 10-minute walk of all residential spaces.	LT	P	B,I,P	X	X				X	X		
			S	A,T			X	X	X				
	Improve safe trails and biking infrastructure and ensure that these are equitably distributed to increase access to and enjoyment of open space by all residents.	LT	P	I,P		X			X	X	X		
			S	T	X		X	X					
	Ban use of glyphosate products (i.e., Roundup), plant climate ready food forests, incentivize replacing rock with natural mulch, and promote understory vegetation to reduce water run off, improve aquifer health and other environmental functions.	MT	P	A,B,P	X					X			
			S	I		X	X	X	X		X		
	Reduce the heat island effect and address wildlife needs by increasing vegetation cover city-wide, creating a tree preservation ordinance, and updating the street tree ordinance to prioritize "greening" in frontline communities.	LT	P	I,P	X				X	X	X		
			S	A,B		X	X	X					
Sustainable Development & Land Use Planning & Practices	Create city-wide sustainable development goals to address climate change and require that every new development submit a sustainability plan.	MT Ongoing	P	B,P	X	X	X	X				X	
			S	A,I					X	X	X		
	Strengthen city-wide planning processes by using community engagement models rooted in environmental justice, such as the one used by the Valle del Oro National Fish and Wildlife Refuge.	MT	P	A,B,P					X				
			S	I	X	X	X	X		X	X		
	Create opportunities for the City of Albuquerque to purchase farmland that might otherwise be slated for development in order to expand wetlands to improve water supply, habitat, and outdoor recreation.	NT Ongoing	P	I,P	X	X					X		
			S	A,B			X	X	X	X			
	Invest in green infrastructure (including rain water collection) and incorporate green infrastructure and green storm water infrastructure into new construction projects to address urban heat island effects and water greenspaces, prioritizing frontline communities with less vegetation and lower access to air conditioning.	MT Ongoing	P	I,P,T	X				X	X	X		
			S	A,B,		X	X	X					
	Water Conservation & Smart Planning	Create and monitor a Climate Action Plan water budget that supports climate mitigation efforts. Develop a water security strategy through collaboration and data sharing with the Albuquerque Bernalillo County Water Utility Authority and other water management entities.	MT Ongoing	P	B,P	X							X
				S	A,I			X	X	X	X	X	
Revise the City Water Code and other applicable policies to increase gray and black water reclamation and other water-saving technologies in new buildings, and when feasible, in existing buildings as well.		MT Ongoing	P	A,P,T	X							X	
			S	B,I			X		X	X	X		
Review City land use practices to address water shortages and determine best practices to conserve water while respecting private agricultural needs and practices.		NT	P	P,T	X						X	X	
			S	A,B			X	X	X	X			

OVERVIEW OF WORKING GROUP MEASURES

Working Group projects in this section provide a multitude of benefits that directly impact neighborhoods, in addition to reducing greenhouse gas emissions. Green stormwater infrastructure projects (CN1 and CN2) will install trees and climate-resilient plants in basins that capture stormwater runoff along residential streets. These projects will reduce flooding, improve stormwater quality, increase tree canopy and green space, reduce urban heat, sequester carbon, improve air quality, calm traffic, and create wildlife habitat. The final measure in this section seeks to conduct a study on where increasing tree plantings in frontline communities (CN3) could help reduce airborne pollutants and urban heat.

All the measures in the table below center around or work towards one or more CAP Task Force recommendations for climate-conscious neighborhoods. The table provides the strategy, general impact area, title, estimated GHGe reduction, and measure-specific cost effectiveness. Additional details for the following measures is included in Appendix D, which is organized by the measure short code (e.g., CN1) and title.

MEASURES

STRATEGY	IMPLEMENTATION MEASURE
<p>County Green Stormwater Infrastructure</p> <p><i>Bernalillo County</i></p>	<p>CN1: Installation of street trees and green stormwater infrastructure in frontline communities in the South Valley.</p> <p>Total Funding Request: \$1,553,899</p> <p>\$/GHGe Reduction: \$11,994 / MT CO₂e</p>
<p>City Green Stormwater Infrastructure</p> <p><i>City of Albuquerque</i></p>	<p>CN2: Installation of street trees and green stormwater infrastructure in frontline communities across the City of Albuquerque.</p> <p>Total Funding Request: \$3,000,000</p> <p>\$/GHGe Reduction: \$227,964 / MT CO₂e</p>
<p>Tree Plantings Inventory</p> <p><i>City of Albuquerque</i></p>	<p>CN3: Research to expand tree plantings and inventory in low-income neighborhoods.</p> <p>Total Funding Request: \$4,750,000</p> <p>\$/GHGe Reduction: \$1,398 / MT CO₂e</p>

CONCLUSION

This plan is both a call to action and a statement: we must act now to counter the global and local effects of climate change. We will need to transcend our differences and acknowledge our limitations. But change for the better is coming and the Albuquerque MSA is committed to being at the forefront of that movement. To that end, we will move forward step by step. The goal of this document is a first attempt in identifying short-term implementable projects that make critical strides in reducing climate pollution and improving the lives of our frontline communities.

Climate change is degrees of magnitude more complex than traditional civic issues. Robust locally focused educational programs are essential for informing residents as well as industry on the dangers forecasted for their environment. Simultaneously, we must also ensure that these warnings are coupled with tangible potential solutions. An essential avenue we will employ to bring this about is through policy and project initiatives. This will work to bring community, industry, and local government agencies together. Government has incredible power to act as a mediator between public and private interest and to pilot transformational changes where MSA residents live, work, pray, and play.



This kind of collaboration can be transformational, but it needs table setting. This CPRG Planning Program seeks to provide the foundation for place-based and equitable climate action across the MSA and to allow us to access the best of our diverse organizational forms: industry to provide the innovation, fast-acting solutions; nonprofits and community to uplift the lived experiences and address the needs of our frontline communities; and government to erect the guard rails for transformational work and set a vision for an equitable future for all.

Going forward, the City of Albuquerque Sustainability Office (SO) is committed to guiding the execution of CPRG's ethos by centering the needs of frontline communities, performing deep, lasting climate pollution reduction, and breaking down silos. Ultimately, progress towards a more equitable and climate-resilient MSA requires coordinated action between the state, the city, the counties, industry, and all members of the community. This effort will undertake key tasks to lay the groundwork for this collaborative future through the development of the Comprehensive Climate Action Plan. Key community engagement mechanisms likely will include:

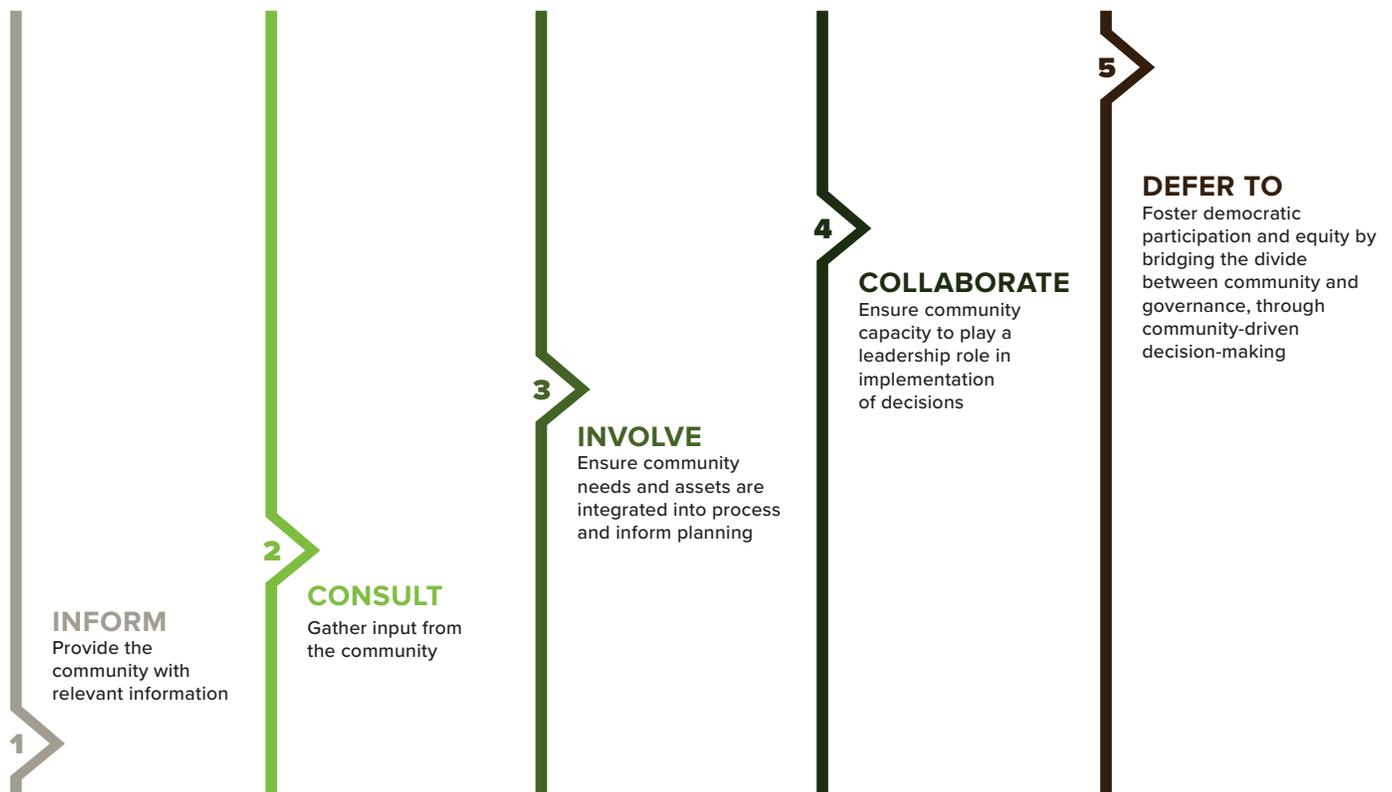
- The development of two Climate Action Community Surveys
- The development of sector-specific working groups
- The development and support of a community-based CCAP Task Force
- The development of the CPRG Planning Program's outreach list

For a comprehensive summary of past and planned community outreach including meeting minutes, agendas, recordings and additional materials, see [Appendix C](#) or visit cabq.gov/cprg.

ALBUQUERQUE JUSTICE40: A CALL FOR ENVIRONMENTAL JUSTICE

The Justice40 Initiative was established by the Biden-Harris Administration to address inadequate investment in marginalized communities disproportionately affected by climate change, pollution, and environmental hazards. In response to community leadership, Mayor Keller issued an executive order creating Albuquerque Justice40 appointing members of an Oversight and Coordinating Committee (OCC) to advocate and create accountability within the City to prioritize efforts to obtain federal funding beginning with those communities previously ignored.

The desired outcome of Albuquerque Justice40 is a paradigm shift that is illustrated by the spectrum of community engagement to ownership, illustrated below.⁶¹



⁶¹ “The spectrum of community engagement to ownership” Facilitating Power, <https://www.cabq.gov/office-of-equity-inclusion/documents/spectrum-2-1-1-1.pdf>

The J40 OCC will endeavor to support the City to ensure any applications for federal funding address environmental impacts with the communities most impacted, seeking to eventually defer to their needs and support self-determination and autonomy. The J40 OCC encourages the City and any entity involved in obtaining federal funds to review the wealth of resources supplied by the OEI such as their [Community Engagement Guide](#)⁶², and [Inclusion Worksheet](#).⁶³

The City of Albuquerque Sustainability Office and OEI will continue to engage with the J40 OCC to strive for community engagement and accountability. This will encompass both planning and implementation of the Climate Pollution Grant to ensure efforts adhere to the principles of Albuquerque J40 to reverse and prevent further injustices in the distribution of hazards and resources.



⁶² “Practical guide to community engagement in the City of Albuquerque” CABQ Office of Equity and Inclusion, https://www.cabq.gov/office-of-equity-inclusion/documents/community-engagement-guide_mm_4_30_21.pdf

⁶³ “OEI Worksheet: Guide to Inclusive Community Engagement” CABQ Office of Equity and Inclusion, ‘<https://www.cabq.gov/office-of-equity-inclusion/documents/oei-worksheet-for-inclusive-community-engagement.pdf>

NEXT STEPS

CLIMATE POLLUTION REDUCTION GRANT PLANNING PROGRAM

The next steps in this CPRG Program is developing the Albuquerque MSA CCAP that seeks to ensure coordinated climate action centered on addressing the most acute needs of our frontline communities. To ensure the CPRG Program has the skills and capabilities to appropriately empower frontline communities in this initiative, key staff will work with the OEI and the J40 OCC to amend the Community Engagement Roadmap (Appendix C).

To follow the progress of the Albuquerque MSA CPRG Planning Program, visit: cabq.gov/cprg

CLIMATE POLLUTION REDUCTION GRANT IMPLEMENTATION PROGRAM

Measures that are included in this PCAP may also qualify for the competitive CPRG Implementation Program. Each government department is capable of submitting two applications for implementation funds: one as a lead applicant, and one as a coalition application. For more information, visit:

<https://www.epa.gov/inflation-reduction-act/about-cprg-implementation-grants>

APPENDIX A

ACRONYMS AND DEFINITIONS

Acronyms

ABCWUA: Albuquerque/Bernalillo County Water Utility Authority
BernCo: Bernalillo County
CAP: Climate Action Plan
CABQ: City of Albuquerque
CCAP: Comprehensive Climate Action Plan
CN: Climate Conscious Neighborhoods measure
CPRG: Climate Pollution Reduction Grant
CT: Clean Transportation measure
EA: Education and Awareness measure
ED: Economic Development measure
EPA: Environmental Protection Agency
ETA: Energy Transition Act
EV: Electric Vehicle
GHG: Greenhouse gas
IECC: International Energy Conservation Code
IPCC: Intergovernmental Panel on Climate Change
J40OCC: Justice40 Oversight and Coordinating Committee

JTA: Job Training Albuquerque
LED: Light-emitting diode
LEED: Leadership in Energy and Environmental Design
LIDAC: Low Income Disadvantaged Communities
NMPRC/PRC: New Mexico Public Regulation Commission
NMMFA: New Mexico Mortgage Finance Authority
MRCOG: Mid-Region Council of Governments
MSA: Metro Statistical Area
NMDOT: New Mexico Department of Transportation
OEI: Office of Equity and Inclusion, CABQ
PCAP: Priority Climate Action Plan, the plan
PNM: Public Service Company of New Mexico
PPA: Power purchase agreement
RE: Renewable Energy measure
SB: Sustainable Buildings measure
SO: Sustainability Office, CABQ
WR: Waste and Recycling measure

Definitions

Active Transportation: Any self-propelled, human-powered mode of transportation, such as walking or bicycling.

Adaptation: Also known as “climate change adaptation,” this is the process of adjusting to current or expected climate change and its effects. It, like climate change mitigation, is one way to respond to climate change.

Battery Storage: Also known as utility-scale battery systems, these are stationary power storage systems that can be connected to distribution/transmission networks or power-generation assets, primarily for the storage of renewable energy. Utility-scale storage capacity ranges from several megawatt-hours to hundreds. Lithium-ion batteries are most prevalent.

Biodiversity: The biological variety and variability of life on Earth. Biodiversity is typically a measure of variation at the genetic, species and ecosystem level.

Brownfield: A property for which expansion, redevelopment or reuse may be complicated by the presence or potential presence of a hazardous substance, pollutant or contaminant.

CAP Task Force: A group of community members specifically selected for their ability to accurately represent the needs of their frontline communities. This task force worked over the span of four months to learn, deliberate, and ultimately write the 2021 CAP to guide climate actions for the City of Albuquerque.

Carbon Sink: A forest, ocean or other natural environment that accumulates and absorbs carbon dioxide from the atmosphere.

CCAP Task Force: A future group of community members who will be selected for their ability to accurately represent the needs of their frontline communities. The intention with this task force is for these community members to work over the span of four or more months to learn, deliberate, and ultimately write the 2025 CCAP to guide climate actions for the entire Albuquerque MSA.

Climate Change: A change in global or regional climate patterns, in particular a change apparent from the mid to late 20th century onwards and attributed largely to the increased levels of atmospheric carbon dioxide produced by the use of fossil fuels.

Climate Change Mitigation: Efforts to reduce or prevent greenhouse gas emissions.

Climate Justice: A term used to frame global warming as an ethical and political issue, rather than one that is purely environmental or physical in nature.

Community Solar: Any solar project or purchasing program, within a geographic area, in which the benefits of a solar project flow to multiple customers such as individuals, businesses, nonprofits and other groups. In most cases, customers are benefiting from energy generated by solar panels at an off-site array.

Compost: A means of recycling organic materials, such as food and yard waste, into a nutrient-rich soil amendment. Composting can be practiced on a variety of scales, from the backyard to the municipal.

CPRG Working Group: The CPRG Working Group consists of government staff across the City and the Counties, who worked over three months to identify and implement projects that meet the CPRG criteria.

Decoupling: The regulation of a utility in which – in an effort to target the profitability of high usage of gas, electricity or water – profits and utility sales are disconnected

Distributed Energy Generation: Decentralized electricity production that occurs in multiple, smaller-scale sites, meaning that electricity is produced by a variety of flexible (typically renewable) sources and requires less long-distance travel.

Electric Vehicle: Vehicles that are powered by a battery and electric motor which must be recharged by electricity instead of gasoline. Also known as battery-electric vehicles or “EVs”, these vehicles do not produce any tailpipe emissions.

Energy Burden: The measure of how much of a household’s income is spent on energy costs. Higher utility bills are often linked to aging homes, resident inability to cover costs for home improvement etc. Barriers preventing some energy improvements for low-income residents commonly include access for renters, as well as qualifying for program support. Increasing energy efficiency initiatives, improving reach of existing programs and making the public more aware of available energy efficiency programs are potential solutions.

Energy Disclosure: Also known as an “energy rating,” this is the practice of evaluating the energy efficiency of a home or building and making the information known to consumers.

Energy Efficiency: Utilization of improved technology or infrastructure that uses less energy to perform the same function.

Energy-Water Nexus: This concept refers to the many relationships between energy production and water, reminding us that energy production – both electric and oil and gas – requires water (to cool power plants, for hydraulic fracking, etc), and that the processing and treatment of water requires energy (to power treatment plants and pumps, for example).

Environmental Justice: The fair treatment and intentional, meaningful involvement of all people – regardless of race, color, ethnicity, education level or income – with respect to the development, implementation and enforcement of environmental laws, regulations and policies.

Energy Transition Act: A New Mexican law enacted in 2019 that shifts New Mexico’s electric utilities from fossil fuel-dependent forms of energy production to renewable energy sources, while also addressing issues of economic development and job creation.

Evapotranspiration Cover: A type of cap placed over contaminated material, such as soil, landfill waste, or mining tailings, to prevent water from reaching it.

Family-supporting Wages: The minimum household income which is needed to fully support the economic needs of a family, especially the most basic needs of food, housing and utilities. Family-supporting wages differ from “living wages” as they are intended to fulfill the needs of a family rather than an individual.

Farm-to-Fork Tourism: The involvement of local agricultural producers and restaurants in tourism as a means of highlighting the talent in a community’s food-related industries, as well as the seasonality and nuances of local food systems.

Food Forests: Areas structured to mimic the complex, multi-layered ecosystems of forests while focusing on the cultivation of edible plants. Food forests are meant to improve wildlife habitat and offer safe, bountiful and free food to all members of a community.

Fossil Fuels: Energy sources – including coal, oil and natural gas – created from millions-of-years-old plant and animal residues. Fossil fuels are typically accessed through drilling or mining, and are then burned or refined in order to be used as energy – all processes which result in GHG emissions.

Frontline Communities: Communities that will be impacted “first and worst” by the effects of climate change. These communities include Indigenous, Black and other communities of color, as well as communities of low-income and other groups that face greater exposure to pollution and climate hazards with more limited resources to respond.

Glyphosate: An herbicide used in agriculture and forestry to kill plants. Glyphosate products (such as the commonly known Roundup) are known to deplete soil health and endanger pollinator species.

Greenhouse Gasses (GHGs): Heat-trapping gas molecules which have transcended their natural levels in the atmosphere due to human activities, such as the burning of fossil fuels. The heat-trapping nature of GHGs, such as carbon dioxide (CO₂), results in the warming of Earth’s surface temperature, causing shifts in global climatic patterns.

Green Stormwater Infrastructure: A stormwater management method that uses living, natural systems to reduce and treat stormwater runoff before it reaches surface waters, while also providing other co-benefits such as increasing tree canopy, reducing urban heat, and creating wildlife habitat.

Green Jobs: Employment opportunities in which either an environmentally beneficial good or service is created and/or offered, or where a job focuses on improving the sustainability of a workplace or institution.

Grid Modernization: The updating of the electrical power grid to make it more adaptable and resilient. Updates can manifest in a range of actions – grid modernization seeks out changes which improve infrastructure, efficiency, renewable energy technologies acquisition, amongst many other updates.

Grey- and Blackwater: Two distinct types of wastewater, with the principal difference being that blackwater is likely to have come into contact with fecal matter, while greywater has not. Examples of greywater include the byproducts of washing or bathing; sewage would be an example of blackwater.

Hybrid Vehicles: Hybrid vehicles contain both an electric motor and an internal combustion engine -- meaning they can utilize both electricity and gasoline (or diesel) for fuel. These vehicles still produce tailpipe emissions, but are considered low-emissions vehicles.

International Energy Conservation Code (IECC): A model building code created by the International Code Council. It is a code adopted by many states and municipal governments in the United States for the establishment of minimum design and construction requirements for energy efficiency.

Investor Owned Utility (IOU): Large electric distributors (utilities) that issue stock owned by shareholders.

Just Transition: A unifying and place-based framework, spearheaded by labor unions and environmental justice groups, that works to empower communities, individuals and organizations politically and economically so that they can shift from extractive to regenerative economies.

Justice40: An initiative through the Biden Administration that requires 40% of federal funding go towards historically under and dis-invested communities.

Justice40 Oversight Coordinating Committee: A committee of legacy environmental justice leaders who provide guidance, support, and feedback to ensure Justice40 criteria are being met for their designated region.

Life-cycle Emissions: The total greenhouse gas impacts produced by a product at every stage of its production, use and disposal.

Low Income Disadvantaged Communities: The term used by the EPA to describe frontline communities - those impacted first and worst by climate change.

Low Emissions Transportation: A mode of transportation typically in a low emissions motor vehicle that emits relatively low levels of motor vehicle emissions. This term may also be technically defined in various air quality statutes.

Measure: A project, program or policy as defined by the EPA that seeks to reduce GHGe and benefit frontline communities.

Methane: A powerful greenhouse gas with a 100-year global warming potential 25 times that of carbon dioxide. Measured over a 20-year period, methane is 84 times more potent as a greenhouse gas than carbon dioxide.

Methane Capture: Instead of releasing methane into the atmosphere, methane capture traps this potent GHG and uses it for alternate purposes, such as electricity production.

Microgrid: A local, decentralized energy grid with control capability, meaning it can disconnect from the traditional grid and operate autonomously.

On-road Transportation: All travel which takes place in an emissions-producing vehicle such as commuting to and from work.

Open Space: Areas of land that are undeveloped (with no or limited built structures) and are accessible to the public. In the context of Albuquerque, Open Space can also refer to land conserved by the City's Parks and Recreation Department's Open Space Division. Albuquerque's Open Spaces intend to conserve natural and archeological resources, facilitate outdoor education and recreation and define the edges of the city's urban environment.

Paris Climate Agreement: A 2015 international climate change accord which sets climate mitigation goals; this landmark treaty has been adopted by the majority of UN parties.

Power Grid: Alternatively known as an electrical grid or an electric grid, an interconnected network for delivering electricity from producers to consumers.

Promotoras: Promotores de salud, shortened as promotoras, is the Spanish phrase for "community health workers". The Hispanic community recognizes promotores de salud as lay health workers who work in Spanish-speaking communities.

Regenerative Agriculture: Farming and grazing practices focused on mitigating climate change by restoring and improving the organic matter and biodiversity of soil.

Renewable Energy: Energy generated from sources that do not deplete after use (e.g., solar, wind, geothermal and hydropower), and offer an alternative to more carbon intensive fuels (e.g., coal, oil and natural gas).

Resilience: A term which refers to something's (for example, a community, individual or environment) ability to prevent, withstand, respond to and recover from setbacks.

Ridership: The volume and demographics of public transit users for a specific transit system.

Scope 1 Emissions: GHG emissions from sources located within the given geographical area

Scope 2 Emissions: GHG emission occurring as a consequence of the use of grid-supplied electricity, heat, steam and/or cooling within the geographical area

Scope 3 Emissions: All other GHG emissions that occur outside the city boundary as a result of activities taking place within the geographical area

Single-use Plastics: Plastic items which are designed to be disposed of, rather than reused, after only one use. Typically, single-use plastics – like disposable cutlery or plastic grocery bags – are also difficult to recycle.

Urban Heat Island Effect: The disproportionate heating of urban areas in relationship to the non-urban areas around them due to the materials, infrastructure and related GHG emissions of urban environments.

Urban Infill: The development or re-development of urban plots of land that are vacant and/or have not been built up. Urban infill is a means of reducing urban sprawl by repurposing underutilized land and/or buildings.

Vision Zero: A strategy for creating safer streets for all, whether walking, biking, driving or taking transit, and regardless of age or ability. It is used around the world as a means of eliminating all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all.

Zero Emissions Transportation: Modes of transportation that do not directly produce greenhouse gas emissions (e.g., biking, driving electric vehicles).

Zero Waste: A movement and/or a practice in which an individual, organization or institution strives to reduce their disposable waste production as much as possible.

APPENDIX B

2021 CLIMATE ACTION PLAN CONTRIBUTORS

2021 ALBUQUERQUE CLIMATE ACTION TASK FORCE MEMBERS

Genesis Arizmendi, Postdoctoral Researcher & Instructor, University of New Mexico

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2021 CITY OF ALBUQUERQUE STAFF

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Xavier Vallejo, Administrative Assistant
Melanie Sanchez Eastwood, Deputy Director
Sharon Berman, Strategic Civic Engagement and Policy Manager
Wendy Wintermute, Share NM Policy Director

APPENDIX C

COMMUNITY ENGAGEMENT ROADMAP & RESOURCES

SUMMARY OF PAST OUTREACH

This PCAP was developed on the foundation of community engagement that dates back to 2020. This foundational work resulted in community-written recommendations to the City of Albuquerque to ensure climate action is reflected in the needs of frontline communities. Key components of this engagement include:

- July 2020, Public Survey Released.
- September 2020, CAP Task Force Started.
- October 2020, CAP Task Force Meetings Begin.
- January 2021, Draft Recommendation Released.
- February 2021, Public Comment Meetings Held.
- March 2021, Final CAP Task Force Meetings Concluded.
- April 22, 2021, Climate Action Plan Released.

Since the release of the 2021 Climate Action Plan,⁶⁴ the City of Albuquerque has made meaningful strides to implement the CAP Task Force suggestions and engage with continued community feedback. Examples of this include:

- September 8, 2022: First Annual Implementation Report released.
- September 28, 2022: Public update and feedback meeting held – Energy efficiency focus
- December 14, 2022: Public update and feedback meeting held – Transit and Vision Zero focus
- April 19, 2023: Public update and feedback meeting held – Electric vehicles focus
- November 27, 2023: Second Implementation Report released.⁶⁵

In anticipation of receiving the award letter for the CPRG Planning Grant, the City of Albuquerque began to meet with key government stakeholders. This outreach was contracted out to Albuquerque-based Single Space Strategies and resulted in an initial list of near-term implementation-ready projects. To ensure the projects submitted met PCAP guidelines and community needs, recommendations from the CAP Task Force were utilized to inform targeted community outreach, which was completed during this timeframe.

⁶⁴ “2021 Climate Action Plan,” City of Albuquerque, 2021, <https://www.cabq.gov/sustainability/documents/2021-climate-action-plan.pdf>.

⁶⁵ Copies of the reports, meeting minutes, and other resources are available on the City’s Climate Action Plan webpage (<https://www.cabq.gov/sustainability/climate-action-plan#CAP-community-engagement>).

- August 10, 2023: PCAP Working Group meetings begin.
- October 2023: CPRG becomes an ongoing agenda item for the Albuquerque Justice40 Oversight Coordination Committee (J40OCC) meetings.
- December 1, 2023: Initial draft of Priority Climate Actions List posted.
- December 2023 – January 2024: 8 meetings with stakeholders, 3 with the State of New Mexico, 4 with the State and other communities in New Mexico, and 4 meetings for other PCAP planning purposes.
- October 2023 – February 2024: Composting-specific research and community engagement conducted, including 50 interviews, 95 listening session attendees, and 70 survey respondents.
- December 2023: Invitation to participation shared across the MSA through the Mid-Region Council of Governments' network.
- December 4, 2023: PCAP Public Comment Meeting (hybrid) held in collaboration with the J40OCC (link to presentation slides; link to meeting recording; additional resources available on the City's Climate Action Plan webpage).
- December 15, 2023: PCAP Public Survey Posted/Released (English and Spanish).

After receiving the award letter, additional community engagement was conducted to inform project development.

- January 2, 2024: CPRG Award Letter received.
- January 22, 2024: PCAP Public Survey closed.
- January 29, 2024: CPRG Manager hired.
- January – February 2024: Partner agency additional community engagement meetings held (27 meetings with community members, 50 stakeholder conversations).
 - South Valley Meetings:
 - January 24, 2024, Mountain View Community Center
 - January 25, 2024, Valle de Oro National Wildlife Refuge
 - January 30, 2024, Westside Community Center
 - February 1, 2024, Los Padillas Community Center
 - North Valley Meetings:
 - February 6, 2024, Paradise Hills Community Center
 - February 21, 2024, Raymond G. Sanchez Community Center
 - East Mountain Meetings:
 - February 7, 2021, Los Vecinos Community Center
- February 2024: Working Group amends projects to incorporate feedback.

ANTICIPATED CCAP OUTREACH

To address gaps in meaningful community engagement, the CPRG Planning Program will work with the OEI and the J40 OCC to further build out and amend next steps. Below is the draft list of activities to enable meaningful outreach:

- Fill out the OEI Worksheet: Guide to Inclusive Community Engagement
- Conduct a Stakeholder Analysis
- Develop a pre-Task Force community-wide survey
- Develop an inclusive, community-based CCAP Task Force
- Develop sector-specific Working Groups to support the CCAP Task Force
- Develop a post-Task Force community-wide survey

RESOURCE LIST

Throughout the PCAP, planning documents and supplemental reports are incorporated to showcase important climate and equity work as it relates to comprehensive planning efforts. These include:

- [The 2020 City of Albuquerque Greenhouse Gas Inventory \(2008 – 2017 data\)](#)
- [The City of Albuquerque 2021 Climate Action Plan](#)
- [Albuquerque Vision Zero Action Plan](#)
- [Albuquerque MSA Business Location Overview](#)
- [Connections 2040 Transportation Plan](#)
- [2023 Climate Action Plan \(CAP\) Implementation Report](#)
- [2022 CAP Implementation Report](#)
- [2021 Urban Heat Watch Campaign Report](#)
- [2019 Albuquerque Food and Agriculture Action Plan](#)
- [2019 Optimized Municipal Electric Vehicle Charging Infrastructure Report](#)
- [2023 Estimate of Food Waste and Rescue Potential in Albuquerque](#)

APPENDIX D

Values for measures SB1, SB2, SB3, RE1, CT1, CT3, CT5, CT6, CT12, WR1, WR2, WR3, CN1, and CN2 have been adjusted to reflect new information since February 29, 2023.

Project Description				Sector						
Strategy	Measure Name	Brief Description	Submitting Agency	Industry	Electricity Generation and/or Use	Transportation	Commercial & Residential Building	Agriculture	Natural & Working Lands	Waste & Materials Management
Sustainable Buildings (SB)										
Energy Efficiency for Frontline Communities	SB1: Community Energy Efficiency	Expansion of low income residential decarbonization across the MSA.	City of Albuquerque		x		x			x
Energy Efficiency for Frontline Communities	SB2: Multi-Family Decarbonization	Multi-faceted program to address energy burdens in low-income rental units.	City of Albuquerque		x	x	x			x
Green Buildings & Development	SB3: Community Center Efficiency & Education	Sub-grant program to develop cooling and education centers to share sustainability best practices to front-line communities.	Bernalillo County		x	x	x			x
Green Buildings & Development	SB4: Los Poblanos Open Space	Improvements at Rio Grande Community Farm to include a Solar Hay Shed and Incinerating Toilets.	Rio Grande Community Farm and Bernalillo County		x			x		x
Renewable Energy (RE)										
Renewable Energy Development	RE1: College Solar Canopies	Building solar panel canopies at five Central New Mexico Community College (CNM) Campuses	Central New Mexico Community College		x					
Clean Transportation (CT)										
Transit Access and Active Transportation	CT1: Transit-Oriented Development	Implementation of a transit plaza and mixed-use, affordable housing development in Uptown	City of Albuquerque			x	x			
Transit Access and Active Transportation	CT2: Bicycle Safety Corridors	Development of bike lanes from Bell Ave to Claremont.	City of Albuquerque			x				
Transit Access and Active Transportation	CT3: Multimodal Rail Trail	Development of final segment of active transportation trail in Downtown Albuquerque.	City of Albuquerque			x				
Transit Access and Active Transportation	CT4: Juan Tabo Connectivity Trail	Development of an active transportation trail connecting Tijeras Arroyo and Innovation Parkway.	City of Albuquerque			x				
Vehicle Emissions Reduction	CT5: Transit Electric Vehicles	Purchase of electric vehicles for the City's transit department which service frontline communities.	City of Albuquerque		x	x				
Vehicle Emissions Reduction	CT6: Municipal Fleet Electrification	Purchase of electric vehicles for the City's fleet which operate in frontline communities.	City of Albuquerque			x				
Vehicle Emissions Reduction	CT7: College Fleet Electrification	Purchase of electric vehicles for Central New Mexico College, located in a LIDAC census tract.	Central New Mexico Community College			x				
Vehicle Emissions Reduction	CT8: Aviation Shuttle Electrification	Purchase of electric shuttle buses for the Airport, located in a LIDAC census tract.	City of Albuquerque			x				
Vehicle Emissions Reduction	CT9: Electrification of Parks Equipment	Purchase of electric alternatives for Parks equipment used in LIDAC census tracts.	City of Albuquerque			x				
Vehicle Emissions Reduction	CT10: Balloon Fiesta Park Electrification	Purchase of electric vehicles and equipment at Balloon Fiesta Park.	City of Albuquerque		x	x				
Vehicle Emissions Reduction	CT11: Golf Cart Electrification	Purchase of electric golf carts to replace conventional equipment, located in a LIDAC census tract.	City of Albuquerque			x				
Vehicle Emissions Reduction Infrastructure	CT12: DC Fast Chargers	Install two DC Fast Chargers: downtown and at Route 66 Visitors Center, with solar canopies.	Bernalillo County			x				
Vehicle Emissions Reduction Infrastructure	CT13: College Public Charging	Install publicly accessible Level 2 and Level 3 Fast Charging EV stations and infrastructure.	Central New Mexico Community College		x	x				
Waste & Recycling (WR)										
Waste Reduction and Composting	WR1: Food Waste Prevention & Composting	Scalable food waste prevention program targeted at small, local restaurants.	City of Albuquerque							x
Waste Reduction and Composting	WR2: Tribal Landfill Diversion	Divert food waste and green waste from the Pueblo of San Felipe's transfer station & develop low GHGe	Pueblo of San Felipe							x
Waste Reduction and Composting	WR3: Municipal Green Waste	Purchase of Bioreactor to divert park and open space green matter from the landfill.	City of Albuquerque					x	x	x
Climate Conscious Neighborhoods (CN)										
Sustainable Land Use Planning & Practice	CN1: County Green Stormwater Infrastructure	Installation of street trees and green stormwater infrastructure in frontline communities in the South	Bernalillo County						x	
Sustainable Land Use Planning & Practice	CN2: City Green Stormwater Infrastructure	Installation of street trees and green stormwater infrastructure in frontline communities across	City of Albuquerque						x	
Greening Efforts in Frontline Communities	CN3: Tree Plantings & Inventory	Research to expand tree plantings and inventory in low-income neighborhoods.	City of Albuquerque					x	x	

CAP Sub Sector														COMPETITIVENESS					OTHER						
Active Transportation & Transit Safety	Climate Emergency Mobilization Efforts	Economic Investment	Energy Efficiency for Green Buildings & Development	Greening Efforts in Frontline Communities	Job Creation in Frontline Communities	Public Sustainability Education	Recycling, Composting, & Waste Reduction	Renewable Energy Development	Sustainable Development & Land Use Planning	Transit Access & Investment	Transit Public Education	Vehicle Emissions	Water Conservation & Smart Planning	Other	Greenhouse Gas Emissions Reduction Estimate (metric tons CO2e, 2025-2030)	Greenhouse Gas Emissions Reduction Estimate (metric tons CO2e, 2025-2050)	Funding Request	\$/metric tons GHGe	LIDAC Benefits (Achieves multiple LIDAC benefits/aligns with LIDAC priorities 4 = best, 0 = Matching/Leveraging Funds)	Demonstration of Need	Added jobs?	Authority to Implement?	Previous community engagement?	Project review overall ranking (4 = best, 0 = worst)	
			x	x	x	x	x								803134.14	6,157,362	\$22,968,690	\$29	4	x	x	x	x	3.4	
x		x	x	x	x	x	x					x	x		243,518	1,867,699	\$6,931,984	\$28	4	x	x	x	x	3.4	
		x	x			x	x	x				x	x		3,734	27,834	\$8,054,300	\$2,157	3				x	x	3.1
						x	x						x		94.11	519	\$159,452	\$1,694	-		x	x	x	x	-
								x							1,572	9,132	\$1,752,993	\$1,115	2			x	x		2.8
x		x	x						x	x	x	x			489	3,532	\$5,472,821	\$11,184	3	x	x	x	x	x	3.2
x									x						21	448	\$4,500,000	\$210,743	3		x	x	x	x	2.8
x		x		x					x	x		x			46	356	\$8,001,650	\$172,153	3	x		x	x	x	3.2
x									x	x		x			0.2	1	\$260,000	\$1,453,846	3	x			x	x	2.6
										x		x			2,376	12,933	\$23,735,000	\$9,991	3		x		x	x	3.4
												x			363	2,706	\$7,957,395	\$21,896	2				x	x	2.9
												x			731	4,965	\$1,584,000	\$2,167	2				x	x	2.7
												x			256	1,716	\$1,210,000	\$4,736	1				x		2.2
												x			233	1,167	\$1,414,048	\$6,057	1				x		1.8
												x			20	100	\$528,532	\$26,334	1		x	x	x		2.2
												x			22	110	\$400,000	\$18,232	1		x	x	x		2.2
												x			489	3,532	\$2,977,500	\$6,085	2				x		3
												x			529.8	2,649	\$800,000	\$1,510	3				x		2.9
															872	5,429	\$640,752	\$735	3	x	x	x	x	x	3.2
															12,588	71,828	\$518,061	\$41	4		x		x	x	3.2
															121	604	\$438,000	\$3,626	2				x	x	2.7
															130	777	\$1,553,899	\$11,994	4	x	x	x	x	x	3.2
															13	1,054	\$3,000,000	\$227,964	3	x			x		2.9
		x		x		x						x			3,399	30,589	\$4,750,000	\$1,398	3	x			x	x	2.6

APPENDIX E

MEASURES

<p>Sustainable Buildings (SB)</p>	<p>SB1: Community Energy Efficiency SB2: Multi-Family Decarbonization SB3: Community Center Efficiency & Education SB4: Los Poblanos Open Space</p>
<p>Renewable Energy (RE)</p>	<p>RE1: College Solar Canopies</p>
<p>Clean Transportation (CT)</p>	<p>CT1: Transit-Oriented Development CT2: Bicycle Safety Corridors CT3: Multimodal Rail Trail CT4: Juan Tabo Connectivity Trail CT5: Transit Electric Vehicles CT6: Municipal Fleet Electrification CT7: College Fleet Electrification CT8: Aviation Shuttle Electrification CT9: Electrification of Parks Equipment CT10: Balloon Fiesta Park Electrification CT11: Golf Cart Electrification CT12: DC Fast Chargers CT13: College Public Charging</p>
<p>Waste and Recycling (WR)</p>	<p>WR1: Food Waste Prevention & Composting WR2: Tribal Landfill Diversion WR3: Municipal Green Waste</p>
<p>Climate Conscious Neighborhoods (CN)</p>	<p>CN1: County Green Stormwater Infrastructure CN2: City Green Stormwater Infrastructure CN3: Tree Plantings Inventory</p>

The City of Albuquerque does not claim the accuracy of greenhouse gas calculations submitted by other agencies. For more information on measure descriptions and greenhouse gas calculations, please email sustainability@cabq.gov.

PRIORITY CLIMATE ACTION PLAN

 sustainability@cabq.gov

 cabq.gov/sustainability