



City of Albuquerque



CLIMATE ACTION PLAN IMPLEMENTATION REPORT

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LETTER FROM MAYOR KELLER

The last year has been filled with great challenges as well as continuous progress towards achieving our city's sustainability goals. While Albuquerque pushes forward with community-based climate mitigation strategies, we have seen unprecedented wildfires rage across our state, persistent drought and rising summer heat. The fight against climate change has never been more visible, and Albuquerque must continue to rise to the occasion.

Following the release of the 2021 Albuquerque Climate Action Plan (CAP) and the start of my administration's second term, our City has forged ahead, with achievements such as:

- ✓ Completed Solar Direct with our partners in Jicarilla Apache Nation, one of the region's largest utility-scale solar fields, to now utilize 88% renewable energy for city government
- ✓ Advanced our projected date for 100% municipal renewable energy use to 2025
- ✓ Hired new full-time staff to lead and implement sustainability priorities
- ✓ Completed the American Cities Climate Challenge funded by Bloomberg Philanthropies
- ✓ Named a top five large city in America for most solar installed per capita



Our progress to build the sustainable and resilient city we need has been rapid, and notable on a national scale. The American Council for an Energy Efficiency Economy has named Albuquerque the third most improved city in their benchmark survey of the nation last year, and our city achieved a ranking of 31 out of over 100 large, U.S. cities for overall sustainability.

Albuquerque city government has expanded its climate approach – incorporating adaptation and resilience strategies to address issues such as rising heat. The City is also preparing for the new opportunities presented by the passage of the Community Solar Act and the Community Energy Efficiency Development (CEED) Block Grant. Although Albuquerque has come so far in its sustainability journey, there are many new opportunities ahead to continue to deepen this important work.

While the 2021 CAP gave Albuquerque a roadmap to where we should direct our priorities and momentum, this report is intended to capture and reflect back on the work we have completed together. It outlines what we have accomplished, and shares next steps, including the initial strides our Sustainability Office has taken to launch a new public engagement component to the implementation process. Fighting climate change is an ever-evolving landscape, and the City is committed to ensuring community voices are always heard to help shape our course.

My hope for readers of this report is that you not only feel more connected to and informed about the sustainability work of your local government, but that you can see what is possible for institutions to accomplish with the support of community. Thank you to the Climate Action Plan Task Force and community who participated in the 2021 CAP planning process – I look forward to the work to come!

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

Climate action plans are key mechanisms to promote reductions in greenhouse gas (GHG) emissions while capturing community priorities. Following the passage of [City Resolution R-19-187](#) and the declaration of a climate emergency, the City of Albuquerque (the City) committed to creating a plan for climate action driven by frontline communities who continue to be impacted by disparities in energy burdens, health outcomes and transportation accessibility, among other challenges.¹

The City initiated the planning process in the summer of 2020 by distributing a city-wide survey to gauge public priorities on issues of climate and sustainability, and formed a climate action task force of community members to author the core strategies of the plan. This task force developed 50 strategies with input from stakeholders, City employees and the public. These 50 strategies were subsequently adopted by City Council and are organized under the categories of:

- Sustainable Buildings
- Renewable Energy
- Clean Transportation
- Waste & Recycling
- Economic Development
- Education & Awareness
- Climate Conscious Neighborhoods & Resources²

As the City leads and tracks implementation of the 2021 CAP, a Climate Action Plan Implementation Report (Implementation Report) will be issued annually to capture implementation efforts within city government and across community. The overall intent of this report is to drive near-term success and long-term change while also mitigating and adapting to climate change.

The Sustainability Office is committed to guiding the implementation of the recommended climate action strategies. The 2021 CAP laid the groundwork for a collaborative future, and the 2022 Implementation Report includes a plan to address gaps and barriers to continued climate progress.

To ensure community members continue to help shape the implementation process, the Sustainability Office will host quarterly community engagement sessions, starting in Fall 2022. Each meeting will center around a project or topic in the 2021 CAP and provide a space to learn about current initiatives, ask questions and provide input. Public feedback will be collected from meetings to provide guidance on initiative impacts, opportunities for improvement and alignment with community goals.

¹ The City of Albuquerque defines frontline communities as those communities that will be impacted “first and worst” by the effects of climate change. These communities include Indigenous, Black and other communities of color; communities of low-income; and other groups that face greater exposure to pollution and climate hazards with more limited resources to respond.

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

SUSTAINABLE BUILDINGS

According to the City’s most recent Greenhouse Gas Inventory, the energy generated to power Albuquerque’s buildings accounts for 55% of the city’s total annual GHG emissions.³ Increasing the number of sustainable buildings promotes cost savings to residents, supports job creation, and allows for greater electrical grid improvements—accelerating Albuquerque’s overall climate response. To accomplish these goals, New Mexico’s new CEED Block Grant Program will appropriate at least \$10 million in funds for reducing building emissions in underserved communities across the state.⁴ Additionally, Albuquerque’s local utility, Public Service Company of New Mexico (PNM), aims to be emissions free by 2040, an ambitious goal that requires continuous efforts and aggressive implementation.

Buildings of all types have a multifaceted role to play in improving Albuquerque’s sustainability and growing an equitable, greener economy. To improve building environmental impacts, the City is focusing on energy efficiency. Audits and retrofits of existing buildings will have major impacts on Albuquerque’s energy consumption. Increasing public awareness around available programs, including utility rebates and financial incentives, is critical to help minimize energy burdens placed on the most at-risk residents.

DID YOU KNOW? 

Community Energy Efficiency program retrofits provided services in frontline communities valued at \$150,000.

NOW, EACH YEAR, THE UPGRADES SAVE:

-  Residents an estimated **\$5,120 in utility costs**
-  **27,000 kWh of electricity**
-  **2,420 therms of natural gas**
-  **37,000 gallons of water**
-  **50 tons of CO₂**

DID YOU KNOW? 

The City, along with local community partners, is positioning for the CEED Block Grant Program, which will provide funding for energy efficiency improvements in frontline communities and encourage local residents to determine what is needed most in their area.

PROGRESS TO DATE

Since releasing the 2021 CAP, the City has been able to provide free energy audits and energy efficiency programs and initiatives to residents, as well as retrofit buildings to reduce energy consumption. Sustainable buildings will make Albuquerque a more resilient and comfortable city for all, especially frontline communities.

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

⁴ “Community Energy Efficiency Development Block Grant,” H.B. 37, 55th Legislature (New Mexico 2022), <https://nmlegis.gov/Sessions/22%20Regular/final/HB0037.pdf>.

ENERGY EFFICIENCY FOR FRONTLINE COMMUNITIES

STRATEGY	IMPLEMENTATION ACTIONS
<p data-bbox="87 464 142 527"></p> <p data-bbox="160 478 558 583"><i>Promote access to programs that give incentives for energy efficiency improvements</i></p>  <p data-bbox="164 1146 584 1377"><i>The City's Sustainability Officer Kelsey Rader and a resident celebrate the completion of the free energy audits on his apartment along with over 200 other homes in low income communities.</i></p>	<p data-bbox="646 478 1466 806">The City in collaboration with Prosperity Works, community service providers, and activists developed the Community Energy Efficiency program to help improve the health, safety and energy efficiency of homes in the International District. This pilot project completed deep retrofits on 10 residences – bringing together multiple funding sources to provide improvements such as EnergyStar roofs and refrigerators, high efficiency water heaters, air source heat pumps, EnergyStar doors, light emitting diode (LED) lighting, advanced power strips and insulation.</p> <p data-bbox="646 837 1466 974">In 2021 the City, Partnership for Community Action, PNM and Prosperity Works wrapped up an initiative that provided over 200 homes with free energy audits and improvements in low income communities.</p> <p data-bbox="646 1010 1466 1188">Multiple resources are provided on the City's website to help residents take advantage of energy efficiency initiatives like New Mexico Mortgage Finance Authority's Energy\$mart program, savings and rebates through the New Mexico Gas Company, rebates from PNM, and the State's Sustainable Building Tax Credit.⁵</p>

⁵ "Learn More to Lower Your Energy Bills," Buildings Resources, City of Albuquerque, last modified July 2022. <https://www.cabq.gov/sustainability/buildings/buildings-resources>.

GREEN BUILDING & DEVELOPMENT

STRATEGY	IMPLEMENTATION ACTIONS
 <p><i>Increase energy efficiency in existing buildings</i></p>	<p>As of June 2022, 123 deep energy efficiency retrofits in city government buildings have been completed. These improvements have resulted in an estimated yearly savings of 236.5 GWh (236,500 MWh) and a combined energy and operations savings of nearly \$53 million yearly.</p> <p>The City has partnered with Yearout Energy to perform an energy focused Investment Grade Audit of 50 facilities. This will help the City to significantly reduce energy and water consumption.</p> <p>City departments, including the Planning Department, support the development of sustainable buildings through multiple avenues, such as requiring developers and home builders to meet current energy standards, incorporating native landscaping into biking and infrastructure projects, and encouraging renewable energy use by reviewing and approving solar panel installations.</p> <p>To meet the 100% renewable energy usage goals and effectively interact with the modern grid, the City’s Energy and Sustainability Management Division and Energy Command Center developed the Balanced Resource Acquisition and Information Network (BRAIN).⁶ BRAIN will enable real-time visibility, flexibility and responsiveness with the City’s existing and future energy storage, generation and building controls resources. The system was designed in collaboration with Smart Cities Connect to benefit the public, the City and the State of New Mexico, as well as to inform local utilities.</p>

⁶ “Balanced Resource Acquisition and Information Network,” Energy and Sustainability Management, City of Albuquerque, accessed August 2022, <https://www.cabq.gov/generalservices/energy-sustainability-management/energy-sustainability-management-brain>.

RENEWABLE ENERGY

Increasing renewable energy production (e.g., solar, wind, geothermal, hydropower) can allow Albuquerque to become more resilient to non-renewable energy price fluctuations while reducing GHG emissions. With an ideal climate to pursue solar initiatives, Albuquerque has made major strides in advancing solar infrastructure – allowing the City to become a national leader in solar.⁷

In alignment with the 2021 CAP goals, the Mayor is committed to reaching 100% renewable energy for municipal operations by 2025. Over the last year, the City has gained a major boost in its renewable energy usage with the completion of Solar Direct – a voluntary solar program developed by PNM and sited on Jicarilla Apache Nation. With Solar Direct successfully launched, the City is now at 88% renewable energy use. There are plans to expand on solar initiatives by funding projects focused on community solar,⁸ microgrids, battery storage and grid modernization. These efforts will minimize dependence on fossil fuels, advance renewable energy adoption and ensure future power grid security.

DID YOU KNOW?

As part of the Cities Race to Zero Campaign, the City has pledged to halve carbon emissions by 2030 and reach net zero in the 2040s or sooner.



(Left to right) The City's Chief Administrative Officer Lawrence Rael, Sustainability Officer Kelsey Rader, and Mayor Keller at the Solar Direct facility.

PROGRESS TO DATE

Over the past year, there has been significant progress in the renewable energy sector. The Community Solar Act⁹ laid the foundation for future community solar programs. Subsequently, the New Mexico Public Regulation Commission (PRC) and New Mexico's Energy, Minerals and Natural Resources Department (EMNRD) completed the rulemaking process on July 12, 2022, an essential step for community solar development to serve frontline communities. The implementation of the Community Solar Act will allow low-income residents access to non-utility-owned solar infrastructure. The City also continues to move forward with renewable energy initiatives that advance emission-reduction goals.

⁷ Environment America's Shining Cities 2022 Report named Albuquerque the 4th city in the U.S. for most solar per capita, and the 9th city for total solar installed (https://environmentamerica.org/sites/environment/files/reports/Shining_Cities-2022.pdf).

⁸ Community solar efforts have been supported on the state level with the passing of the Community Solar Working Group memorial in 2020 (<https://nmlegis.gov/Sessions/20%20Regular/final/SM063.pdf>) and the Community Solar Act bill in 2021 (<https://www.nmlegis.gov/Sessions/21%20Regular/final/SB0084.pdf>).

⁹ "Community Solar Act," S.B. 84, 55th Legislature (New Mexico 2021), <https://www.nmlegis.gov/Sessions/21%20Regular/final/SB0084.pdf>.

RENEWABLE ENERGY DEVELOPMENT

STRATEGY	IMPLEMENTATION ACTIONS
 <p><i>Support local and statewide standards for community solar programs</i></p>	<p>The Community Solar Working Group, which consisted of over 90 participants, was active in the rule-making process supporting community solar. Working group participants included City staff and other government employees along with representatives from utilities, solar installers, non-profits, tribal representatives, electric co-ops and legislators.</p>
 <p><i>Expand renewable energy usage</i></p>	<p>The Solar Direct facility, which produces 50 MW of energy, came online in April 2022 – bringing the City to a total of 88% renewable energy use for City operations.</p>
 <p><i>Form partnerships to increase solar development</i></p>	<p>In July 2022, the City was awarded SolSmart’s Gold Designation for its solar efforts.¹⁰ SolSmart is a national designation program that recognizes cities that foster the development of mature, local solar markets.</p>



¹⁰ “Albuquerque, NM, Designation Level: Solsmart Gold,” Designee Map, Solsmart, 2022, <https://solsmart.org/communities/albuquerque>.

CLEAN TRANSPORTATION

Transportation is the second-largest contributor to Albuquerque’s GHG emissions.¹¹ Not everyone has access to a vehicle for their daily commutes, so it is important to improve all modes of transportation; whether you are walking, biking, taking the bus, driving, or a combination of any of those. Clean transportation is not only about reducing emissions, but also about making Albuquerque an accessible city for all. Albuquerque is taking measures to reduce traffic-related fatalities and serious injuries by adopting complete street projects, and improving public transportation.

Based on the 2020 CAP Public Survey results,¹² residents are most interested in seeing improvements in sidewalk upgrades, bike lane upgrades, and faster public transportation. Increasing accessibility to public transit will reduce GHG emissions by allowing more residents to utilize services like ABQ Ride, thus reducing the number of vehicles on the road. The City is also helping to expand electric vehicle (EV) availability and adding EV chargers to further reduce emissions.

PROGRESS TO DATE

To continue progress in clean transportation, Albuquerque is focusing on expanding EV infrastructure by adding chargers, fitting buildings with the infrastructure to be ready to install EV chargers, transitioning its municipal fleet, and launching an Electrified Dealership Program to enhance the EV buying experience. In December 2021, the Zero Fares Pilot launched, with no fees for transit riders through the end of June 2023. The City has also funded new transportation-focused positions, with the addition of a Vision Zero Coordinator and a Sustainable Transportation Specialist.



The City’s new Electrified Dealership Program is designed to enhance the EV purchasing experience and help increase EV purchasing in the Albuquerque metro area. University Volkswagen Mazda and Perfection Honda are the first dealerships to participate in the new program.

¹¹ “Greenhouse Gas Inventory,” City of Albuquerque, 2020, <https://www.cabq.gov/sustainability/documents/city-of-albuquerque-ghg-inventory-3.pdf>.

¹² “City of Albuquerque Climate Change Survey,” City of Albuquerque, 2020, <https://www.cabq.gov/sustainability/documents/2020-climate-change-survey.pdf>.

In May 2023, the New Mexico Environmental Improvement Board (EIB) and the Albuquerque-Bernalillo County Air Quality Control Board (AQCB) each adopted the Clean Car Rule after a joint public hearing.¹³ Their independent approval of the Clean Car Rule allows California’s Advanced Clean Cars to be implemented statewide in New Mexico beginning July 1, 2022. The coordinated package of regulations will reduce emissions of greenhouse gases and ozone- and smog-causing pollutants from new passenger cars, trucks, and SUVs starting in model year 2026.

VEHICLE EMISSIONS REDUCTION

STRATEGY	IMPLEMENTATION ACTIONS
 <p><i>Sustain efforts to convert city fleet vehicles to lower emissions vehicles</i></p>	<p>The City continues to implement a “Zero Emissions First” fleet vehicle adoption policy. To date, the City has adopted 139 low and zero emissions vehicles into the municipal fleet.</p>
 <p><i>Transition mass transit to zero emissions fuel sources</i></p>	<p>In June 2022, the City introduced five new zero emissions electric buses into its public transit fleet.¹⁴</p>
 <p><i>Increase EV infrastructure</i></p>	<p>Since 2019, the City has increased the number of City-owned public EV charging stations from 2 stations with 2 charging ports to 20 charging stations with 36 charging ports as of July 2022.</p> <p>The U.S. Department of Transportation (USDOT) will be giving the State of New Mexico \$38 million over the next 5 years to expand its EV charging infrastructure. New Mexico submitted its EV Infrastructure Deployment Plan to the USDOT in July 2022.</p>
 <p><i>Promote rideshare options</i></p>	<p>The Sustainability Office is working with Forth Mobility and local affordable housing sites to launch Albuquerque’s first EV rideshare program, the Affordable Mobility Project.</p>

¹³ “New Mexico adopts Clean Car Rules,” City of Albuquerque, May 5, 2022, <https://www.cabq.gov/airquality/news/new-mexico-adopts-clean-car-rule>.

¹⁴ “ABQ Ride Creates a Buzz with Electric Buses,” City of Albuquerque, June 2022, <https://www.cabq.gov/transit/news/abq-ride-creates-a-buzz-with-electric-buses>.

TRANSIT ACCESS & INVESTMENT

STRATEGY	IMPLEMENTATION ACTIONS
 <p><i>Realign existing transportation processes and plans to ensure alignment of mode shift projects</i></p>	<p>The adopted Complete Street Ordinance¹⁵ is a city-wide goal to expand the safe use of streets by requiring equal consideration of the efficiency and safety of all types of travel.</p>
 <p><i>Increase funding for public transit</i></p>	<p>In December 2021, the City launched the Zero Fares Pilot Program,¹⁶ which eliminates fares on all public buses and paratransit services through June 30, 2023.</p>

ACTIVE TRANSPORTATION & TRANSIT SAFETY

STRATEGY	IMPLEMENTATION ACTIONS
 <p><i>Invest in city funded improvement projects involving mode shifts</i></p>	<p>In 2021, the City committed to the Vision Zero Action Plan.¹⁷ This plan focuses on creating safer streets for everyone by eliminating traffic deaths and serious injuries, while increasing safe, healthy and equitable mobility.</p>

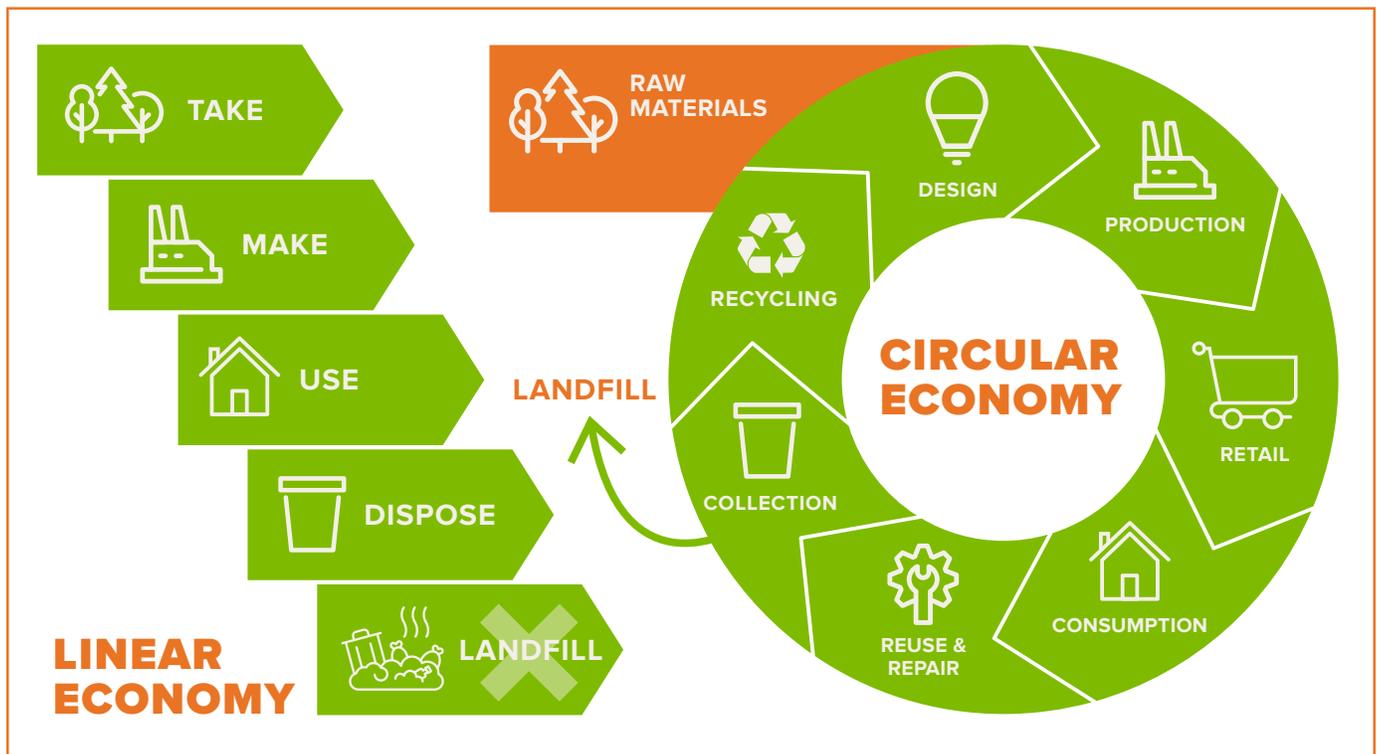
¹⁵ “Complete Streets Ordinance,” City of Albuquerque, accessed July 2022, <https://www.cabq.gov/council/projects/current-projects/complete-streets/complete-streets>.

¹⁶ “Zero Fares Pilot Program,” City of Albuquerque, accessed July 2022, <https://www.cabq.gov/transit/tickets-passes/zero-fares>.

¹⁷ “Vision Zero,” City of Albuquerque, accessed July 2022, <https://www.cabq.gov/vision-zero/vision-zero>.

WASTE & RECYCLING

Products contribute to the climate crisis in each stage of their life cycle, from production to disposal. After disposal, organic materials (e.g., paper, food scraps, green waste) slowly break down and release methane – a GHG over 25 times more potent than carbon dioxide – for 50 years or more after arriving at the landfill. Waste generation rates have been increasing over time,¹⁸ and landfill methane was recently identified as the third largest source of human-caused methane emissions in the U.S.¹⁹ With these and other pressing factors, it is increasingly important to (1) holistically evaluate the direct and indirect impacts products have on communities and ecosystems and (2) take a multi-faceted approach to reduce waste and create environmental and social resilience.



¹⁸ U.S. Environmental Protection Agency, Advancing Sustainable Materials Management: 2018 Fact Sheet, EPA 530-F-20-009 (Washington, DC, December 2020), https://www.epa.gov/sites/default/files/2021-01/documents/2018_ff_fact_sheet_dec_2020_fnl_508.pdf.

¹⁹ “Basic Information About Landfill Gas.” U.S. Environmental Protection Agency, last updated on April 21, 2022, <https://www.epa.gov/lmop/basic-information-about-landfill-gas>.

At present, the main issues surrounding waste and recycling include cost, labor, emissions, quantity and material type. Solid waste disposal costs in the city are low compared to national averages.²⁰ In the U.S., recycling and composting diversion rates seemed to plateau in the 2010s,²¹ yet the environmental impact of continuing to send the same amount of materials to the landfill is unsustainable. Albuquerque is continuously exploring alternatives to sending material to the landfill, including recycling, composting, reusing and repairing items.

PROGRESS TO DATE

The City is looking to divert more waste from the landfill. The Solid Waste Management Department (SWMD) aligns their waste and recycling efforts with the 2021 CAP's Waste and Recycling theme by promoting reuse, recycling²² and composting, using public policy to reduce plastic waste, increasing accountability for corporate producers, and supporting education programs.²³ The City has also funded a new composing- and waste-reduction-focused positions with the addition of a Local Agriculture Community Coordinator and a Sustainability Waste Specialist. Moving forward, the City is exploring ways to further support sustainability, including conducting a study on expanding the City's current Green Waste Program²⁴ to include subscription-based residential green waste curbside pick-up.

²⁰ The City's 2022 landfill tipping fee is \$30 per ton for municipal waste (<https://www.cabq.gov/solidwaste/trash-collection/commercial>), well below the national average in 2015 of \$49.78 per ton (https://www.epa.gov/sites/default/files/2015-12/documents/historic_tipping_fees_and_commodity_values_02062015_508.pdf). Since 2015, tipping fees have only increased to upwards of \$50 per ton. In 2019, the Environmental Research and Education Foundation reported a national average rate of \$55.36 per ton (https://erefdn.org/wp-content/uploads/woocommerce_uploads/2017/12/MSWLF-Tipping-Fees-2019-FINAL-revised-revised-1-gcml72.pdf).

²¹ "National Overview: Facts and Figures on Materials, Wastes and Recycling," U.S. Environmental Protection Agency, last updated on June 29, 2022, <https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/national-overview-facts-and-figures-materials#Trends1960-Today>.

²² The City's recycling efforts are supported by private companies, which accept items such as comingled recycling, food and other organic waste, metals, chemicals, and other materials. The collected items are then sent to recycling facilities or recycled onsite.

²³ The SWMD utilizes a variety of education and outreach methods such as the Recycle Coach app (<https://www.cabq.gov/solidwaste/recycling/recycle-coach>) and reoccurring cleanups and cleanup events that also support education around the impacts of littering (<https://www.cabq.gov/solidwaste/clean-city-programs/keep-burque-clean>).

²⁴ The SWMD Green Waste Program (<https://www.cabq.gov/solidwaste/green-waste>) includes spring and fall residential pick-up, year-round drop-off at convenience centers and the City's landfill, and annual holiday treecycling.

RECYCLING, COMPOSTING & WASTE REDUCTION

STRATEGY	IMPLEMENTATION ACTIONS
 <p><i>Waste reduction</i></p>	<p>Keep Albuquerque Beautiful, Locker 505, and the SWMD host the Recyclothes event annually to reduce textile waste from the land-fill and to provide clothes to children in frontline communities.</p>
 <p><i>Fund infrastructure and coordination for neighborhood and school composting</i></p>	<p>As of 2021, the City secured \$300,000 in state capital outlay funds for community gardens.</p> <p>The City’s Parks and Recreation Department (PRD) has received funding to add 3-bin composting systems at two City-owned sites: Santa Barbara-Martineztown Community Garden and Loma Linda Park and Community Center.</p>
 <p><i>Promote methods of recycling, reuse and composting</i></p>	<p>The SWMD has partnered with Albuquerque Public Schools (APS) to make climate change and gardens part of school curricula.</p> <p>The City has invested in climate-change-related public education, including waste reduction campaigns.</p> <p>The SWMD partners with Fuse Marketplace to provide regular FixIt Clinics where people have access to tools and coaches to help them learn to fix instead of trash their appliances, bikes or electronics.</p> <p>The SWMD is utilizing a hands-on recycling game to enhance community education around recycling right.</p>





EDUCATION & THE CLIMATE-READY WORKFORCE

Education and awareness are fundamental drivers of current and future actions, including shifting economic forces to address the climate crisis. Sustainability is a growing field; thus, educating on a range of topics offers opportunities for new entry points into the green workforce. Initiatives in multiple sectors (e.g., media attention, collection and sharing of data, commitment from regional leaders, public education) can act also in concert to increase awareness and empower informed action that is vital to establishing resilient, inclusive and equitable responses to the climate crisis.

What is taught to the next generation will impact future reactions to climate change, including the creation of new career pathways. Spreading awareness of current human impacts on natural resources, educating on what can be changed moving forward, and teaching sustainability are all important steps in combating the climate crisis and making Albuquerque a more resilient city for all.

PROGRESS TO DATE

Over the last year, the City has partnered with APS to expand their community garden program. This expansion is the result of forming partnerships within City departments and between community liaisons to develop projects and secure funding. The City plans to continue to grow available education resources by creating webpages to house pertinent information for public awareness on different sustainability topics. Additionally, job creation and training through the City's collaboration with Job Training Albuquerque (JTA)²⁵ will ensure the City can continue to keep job generation and staffing local – supporting important sectors such as renewable energy development.



Student proudly presents a piece of air quality monitoring equipment – assembled by students as part of a community-driven, City-supported heat-mitigation project at an APS school garden in the International District. This project is made possible by the Health Equity Council.

²⁵ Job Training Albuquerque,” CNM Ingenuity, Central New Mexico Community College, accessed July 2022, <https://jobtrainingabq.org>.

CLIMATE EMERGENCY MOBILIZATION EFFORTS

STRATEGY	IMPLEMENTATION ACTIONS
 <p><i>Create accurate, timely and accessible data dashboards</i></p>	<p>In July 2022, the Environmental Health Department launched its restructured sustainability dashboard.²⁶</p> <p>A new solar landing page has been built to house all information regarding solar (e.g., permits, instructional videos, fee estimators, useful information).²⁷</p>
 <p><i>Invest in public education campaigns on a range of climate issues</i></p>	<p>In March 2021, Albuquerque launched the Consumer Financial Protection Initiative to inform homeowners about deceptive solar panel marketing.</p> <p>The City provides links on their website to energy audit resources.²⁸</p>

PUBLIC SUSTAINABILITY EDUCATION

STRATEGY	IMPLEMENTATION ACTIONS
 <p><i>Partner with schools to make ecological knowledge, climate change and school gardens part of the curricula</i></p>	<p>APS has developed a community garden program for starting gardens at APS facilities.</p> <p>The PRD along with the Open Space Division have drafted an agreement with APS for the Martineztown Community Garden.</p> <p>The City’s PRD has assisted with plans implementing the Rey Garduno Agro-Ecology/Community Garden’s Master Plan. The PRD was also awarded a small grant to support several improvements, including water meters, storage and soil building. The recent hiring of a Local Agriculture Community Coordinator will help streamline project efforts.</p>

²⁶ “CAP Dashboard,” City of Albuquerque, last updated July 2022, <https://www.cabq.gov/sustainability/climate-action-plan#dashboard>.

²⁷ “Solar Resources,” City of Albuquerque, last updated July 2022, <https://www.cabq.gov/sustainability/solar/solar-resources>.

²⁸ “Learn More to Lower Your Energy Bills,” Buildings Resources, City of Albuquerque, last updated July 2022, <https://www.cabq.gov/sustainability/buildings/buildings-resources#lower-your-energy-bills>.

WORKFORCE DEVELOPMENT

STRATEGY	IMPLEMENTATION ACTIONS
 <p><i>Continue workforce development</i></p>	<p>JTA has provided several Albuquerque-based solar companies with access to training in both Solar Electric Basics and the North American Board of Certified Energy Practitioners Exam prep and has trained over 20 of their employees.²⁹</p>



²⁹ “JTA Impact Report,” Job Training Albuquerque, January 2022, https://jobtrainingabq.org/wp-content/uploads/2022/04/268-21-Ingenuity-Impact-Report.final_.pdf, 6.



CLIMATE CONSCIOUS NEIGHBORHOODS & RESOURCES

As an arid, high-desert city, Albuquerque has always felt the constraints of water scarcity and heat. Looking to the future, projections show that climate-driven changes to the region will result in decreases in water availability as well as a rise in both summer wildfires and extreme heat. To mitigate these impacts, 2021 CAP goals focus on increasing conservation of water resources by optimizing water use, utilizing wastewater, and targeting storm water management improvements.

Heat does not affect all residents equally – local frontline communities are at heightened risk during instances of unprecedented heat. Extreme heat events can be managed by providing opportunities for residents to stay cool in the heat while also actively working to build out shade across the city. Increasing urban tree canopy as well as adding new parks or open space areas, greenways, or bikeways, especially in underserved areas, are effective ways to reduce the heat island effect. Cooling centers and splash pads are available to all residents to provide safe, cool spaces to escape the heat.

PROGRESS TO DATE

According to climate projections, Albuquerque is expected to experience an increase in frequency and intensity of extreme heat events.³⁰ In response, the City has focused on reducing its heat island effect by researching the latest cooling interventions and applying them in projects when possible. The City also works closely with the Albuquerque Bernalillo County Water Utility Authority (Water Authority) on water-related conservation and planning efforts.³¹ Implementation of these projects, along with incentives to build urban tree canopy and increase shade,³² will help mitigate the impact of heat.



³⁰ “Future of Climate Change,” U.S. Environmental Protection Agency, accessed July 2022, <https://climatechange.chicago.gov/climate-change-science/future-climate-change>.

³¹ The 2022 Climate Action Plan Implementation Report captures City-led efforts and progress made by institutional partners. The Water Authority provides water to the residents of Albuquerque and aims to support the environment and communities within the city.

³² The Let’s Plant ABQ program incentivizes planting and caring for native, drought tolerant trees and brings together Tree New Mexico, the Albuquerque Bernalillo County Water Utility Authority, 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.

GREENING EFFORTS IN FRONTLINE COMMUNITIES

STRATEGY	IMPLEMENTATION ACTIONS
 <p><i>Reduce the heat island effect</i></p>	<p>As of summer 2022, the City is participating in the National Aeronautics and Space Administration’s (NASA’s) DEVELOP program to further utilize data collected from the Climate Action Planning + Analytics Urban Heat Watch Campaign, completed in July 2021.³³ The 2021 heat watch campaign captured over 67,000 data points, resulting in high resolution descriptions of temperature and humidity across Albuquerque. These snapshots in time show how urban heat varies across neighborhoods and will be used to inform future heat mitigation initiatives.</p> <p>Over the past year, Albuquerque’s urban forest has grown by over 1,000 trees, which were planted across the city.</p> <p>The Water Authority offers rebates for professional tree care or purchases of new low to medium water use trees.³⁴</p>

SUSTAINABLE DEVELOPMENT & LAND USE PLANNING & PRACTICES

STRATEGY	IMPLEMENTATION ACTIONS
 <p><i>Invest in green infrastructure (including rain water collection)</i></p>	<p>The Water Authority offers rainwater harvesting rebates on new rain barrel purchases.³⁵</p>

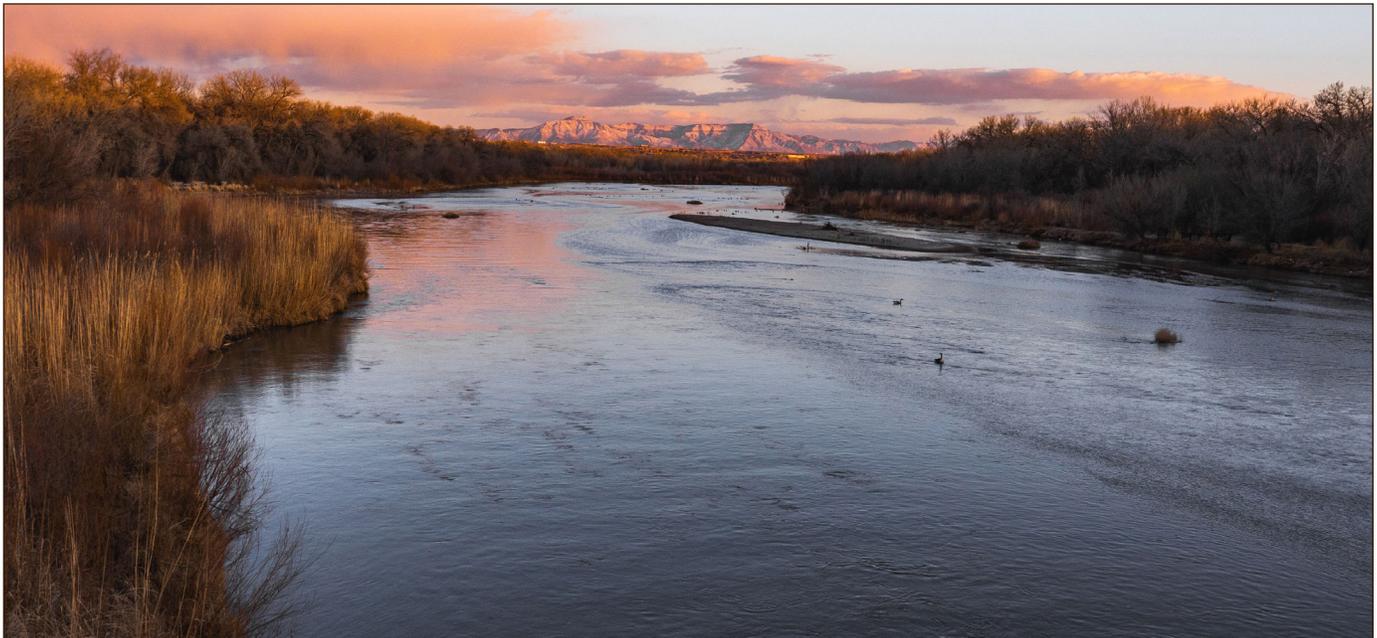
³³ “Heat Watch Report: Albuquerque, New Mexico,” CAPA Strategies, LLC, Summer 2021, https://www.cabq.gov/sustainability/documents/heat-watch-albuquerque_report_111921.pdf.

³⁴ “Treebates,” Albuquerque Bernalillo County Water Utility Authority, accessed July 2022, <https://www.505outside.com/residential-treebates>.

³⁵ “Rainwater Harvesting,” Albuquerque Bernalillo County Water Utility Authority, accessed July 2022, <https://www.505outside.com/residential-rainwater-harvesting-rebates>.

WATER CONSERVATION AND SMART PLANNING

STRATEGY	IMPLEMENTATION ACTIONS
 <p><i>Increase gray and black water reclamation</i></p>	<p>The Water Authority’s Southside Water Reclamation Plant allows grey and black water to be collected and treated before being discharged into the Rio Grande.³⁶</p> <p>The Water Authority’s re-use program blends untreated surface water from the Rio Grande with recycled industrial wastewater to irrigate green spaces. This blended water is used to irrigate Arroyo del Oso Golf Course and Park, Balloon Fiesta Park, and turf areas in the Northwest Heights.³⁷</p> <p>As of June 2022, the Albuquerque Sunport is being irrigated with reclaimed water, helping to conserve approximately 4 million gallons of potable water each month.³⁸</p>



³⁶ “Reclamation,” Albuquerque Bernalillo County Water Utility Authority, 2021, <https://www.abcwua.org/sewer-reclamation>.

³⁷ “North Side Irrigation,” Water System Diagram, Albuquerque Bernalillo County Water Utility Authority, 2021, https://www.abcwua.org/education-23a_balloons.

³⁸ “Jaw Dropping Water Savings at ABQ Sunport,” City of Albuquerque, June 14, 2022, <https://www.abqsunport.com/2022/05/11/jaw-dropping-water-savings-at-abq-sunport>.

CONCLUSION

Development of the 2021 CAP was a necessary and valuable achievement on the path to reach the City's GHG reduction and equity goals. The 2021 CAP is an important marker of dedication and momentum, and is used as an instigator for local action, change and improvement by all of Albuquerque.³⁹ This and future Implementation Reports are the next step in helping the City reach its goals generated by the CAP Task Force and reinforced by the greater community.

As the City continues to implement and monitor progress, continued engagement with and participation by the community is a critical component in successfully progressing towards, and then achieving, the City's GHG reduction goals. The 2022 Implementation Report is designed to engage the public in understanding the CAP implementation process, their role in supporting implementation efforts, how the goals and related projects may affect City residents, and the variety of community benefits (i.e. walkability, biking infrastructure, EV ride-share, etc.) that will be realized through CAP implementation. With the continued guidance from the community and the 2021 CAP, the City is well on the way to creating a healthy, resilient and equitable Albuquerque for all by proactively advancing community-focused climate mitigation and adaptation projects, policies and education.



³⁹ "2021 Climate Action Plan," City of Albuquerque, 2021, <https://www.cabq.gov/sustainability/documents/2021-climate-action-plan.pdf>.

NEXT STEPS

In addition to continued work toward the CAP goals, transparency and community engagement are vital to the success of sustainability programs and initiatives. The sections below detail the City’s commitment to future CAP implementation actions.

Reporting

Implementation Reports will be published annually to allow the public and the City to evaluate and monitor progress toward the 2021 CAP goals. Along with community feedback, the Implementation Reports will help inform future CAP updates and initiatives.

Community Engagement

The City is dedicated to hearing the voices of communities and tailoring sustainability projects to meet the public’s needs and expectations throughout the implementation process. Starting in Fall 2022, the Sustainability Office will organize quarterly public meetings to share updates on progress towards the 2021 CAP goals and provide opportunities for people to ask questions and provide input. The City is especially interested in hearing from community members regarding (1) initiative impacts, (2) constructive input for project implementers, and (3) continuous alignment with community priorities. Community feedback will be gathered during each meeting and for a period of time afterwards.

During this first year, community engagement meetings will be held virtually via a remote meeting platform and recordings will be posted to the City’s website⁴⁰ along with information on how to engage with the process. Each meeting will focus on a project or topic from the 2021 CAP with an anticipated launch in Fall 2022. Each year, the City will evaluate the community engagement strategy to identify ways to improve and increase involvement.



⁴⁰ “CAP Community Engagement,” Climate Action Plan, City of Albuquerque, last updated July 2022, <https://www.cabq.gov/sustainability/climate-action-plan#CAP-community-engagement>.

APPENDIX A

ACRONYMS/GLOSSARY

AQCB: Albuquerque-Bernalillo County Air Quality Control Board

BRAIN: Balanced Resource Acquisition and Information Network

CAP: Albuquerque Climate Action Plan

CEED: Community Energy Efficiency Development

EIB: New Mexico Environmental Improvement Board

EMNRD: New Mexico's Energy, Minerals and Natural Resources Department

EV: Electric Vehicle

GHG: Greenhouse gas

Implementation Report: Climate Action Plan Implementation Report, CAP-IR

JTA: Job Training Albuquerque

kWh: a unit of energy typically used to measure electricity use (e.g., 1 kWh is the amount of energy used by a 10 Watt LED lightbulb in 100 hours or a

1,000 Watt microwave oven in 1 hour)

LED: Light-emitting diode

NASA: National Aeronautics and Space Administration

PNM: Public Service Company of New Mexico

PRC: New Mexico Public Regulation Commission

PRD: Parks and Recreation Department

SWMD: Solid Waste Management Department

the City: City of Albuquerque

therm: a unit of energy typically used to measure natural gas use (e.g., 1 therm is equivalent to 29 kWh of energy or approximately 100 cubic feet of natural gas)

USDOT: United States Department of Transportation

Water Authority: Albuquerque Bernalillo County Water Utility Authority

CLIMATE ACTION PLAN

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