





Contact Info:

cabq.gov/sustainability sustainability@cabq.gov

TABLE OF CONTENTS

- 3 | SUMMARY
- 4 CLIMATE GOALS
- 6 SCOPES OF CARBON EMISSIONS
- 7 BUILDINGS
- 8 TRANSPORTATION
- 9 WASTE & WASTEWATER
- **11** AGRICULTURE, FORESTRY, & LAND USE

SUMMARY

Greenhouse gases (GHGs) are molecules in the air that cause a warming effect across the globe. The ways we move, power buildings, create and dispose of materials, and manage the land around us influence how many GHGs we emit. Those GHGs can impact human health, alter weather patterns, and damage our environment.

To identify ways to reduce GHGs, we must first understand where they come from. The Greenhouse Gas Inventory presented here shows the GHG emissions from 2023. It is based on the Global Protocol for Community Scale Greenhouse Gas Emission Inventories (GPC).

The results from this inventory show that in calendar year 2023, the Albuquerque community produced 5,523,266 metric tons of CO2 equivalent (CO2e). (An average of 9.74 metric tons of CO2e for each of Albuquerque's residents for that year). GHG emissions came primarily from buildings (56%), transportation (39%), and waste and wastewater (2%). Industrial processes and product use, and agricultural emissions together make up the remaining 2%.



For more information on this GHG Inventory, please visit caba.gov/ghg-2025

CLIMATE GOALS

In Albuquerque, we are making progress on reducing our community-wide GHG emissions. However, we have a long way to go to reach net zero by 2050¹.

This GHG Inventory and projection estimates that our emissions will decrease 33% from 2023 to 2050, due in large part to PNM adding more clean energy to the grid, building energy efficiency policies already in place, and an increase in electric vehicle adoption.

But we have lots to do to meet international best practices. The Science-Based Target Initiative (SBTi)² sets guidelines for emissions reduction goals, given industrialized countries' greater contribution to global

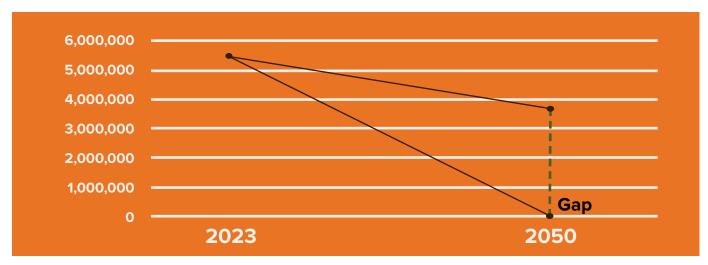
DID YOU KNOW?

Community-scale inventories focus on emissions that occur within community limits. These kinds of inventories allow policymakers to track progress over time and compare how we fare against other similar communities. Consumption-based inventories are more comprehensive but are very difficult to complete. They include impacts from our purchasing and disposal behavior and can be over two times larger than community-scale inventories.

emissions. To achieve those more ambitious emissions reduction goals, the Albuquerque community would need to reduce emissions by almost 10% every year from 2023 until 2030.

For more information on this GHG Inventory, please visit cabq.gov/ghg-2025

EMISSIONS GOALS TO 2050



2023: 5,523,226 MTCO2e (community-wide emissions)

2050: 3,712,650 mtCO2e (community-wide emissions, without additional actions)

2050: Net Zero (SBTi long-term goal)

¹ Climate Mayors Goals <u>climatemayors.org</u>

² Science Based Target Initiative (2025): sciencebasedtargets.org

CHART OF 2023 EMISSIONS BY SECTOR

DI OLOTOR

BUILDING ENERGY



3,113,205 MtCO2e

TRANSPORTATION



2,169,199 MtCO2e

INDUSTRIAL PROCESS WASTE & WASTEWATER



110,903 MtCO2e



136,892 MtCO2e

AGRICULTURE

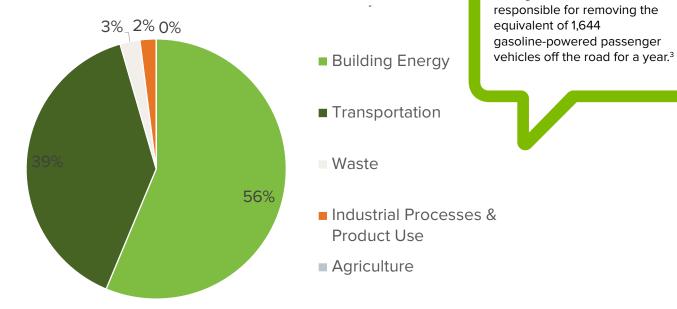


(6994) (negative number) MtCO2e

DID YOU KNOW?

the Agriculture sector is

2023 ALBUQUERQUE COMMUNITY-WIDE GREENHOUSE GAS EMISSIONS INVENTORY

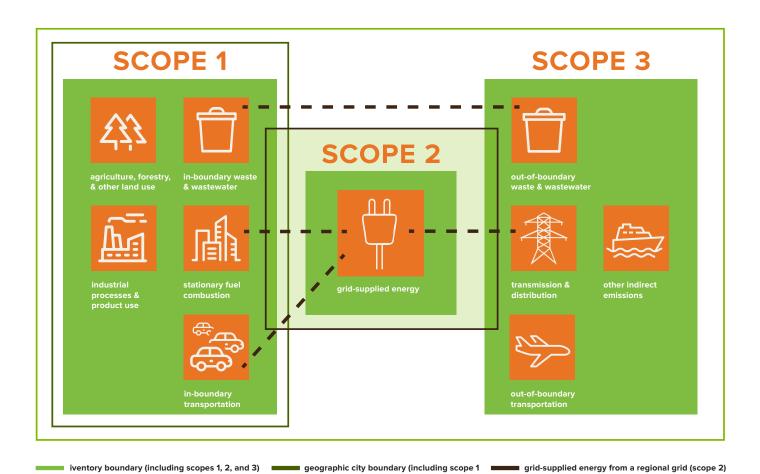


³ Equivalency data obtained from: <u>epa.gov/energy/greenhouse-gas-equivalencies-calculator#results</u>



SCOPES OF CARBON EMISSIONS

In all Greenhouse Gas Inventories, emissions are categorized into three distinct scopes—Scope 1, Scope 2, and Scope 3—to help organizations identify and manage their climate impact across different operational boundaries. For Community-Scale inventories, Scope 1 includes direct GHG emissions from sources within community limits, such as emissions from vehicles or on-site fuel combustion. Scope 2 covers indirect emissions from purchased electricity, steam, heating, and cooling consumed in community limits. Scope 3 includes specific indirect emissions that occur outside city limits as a result of activities happening inside city limits, such as emissions from the treatment of exported waste or transmission and distribution losses.⁴



⁴ To remain in compliance with the Global Protocol for Community Scale Greenhouse Gas Emission Inventories, this inventory calculated all three scopes in its calculation, but only includes a portion of Scope 3 emissions to avoid double-counting and allow accurate comparisons across jurisdictions. For more information, visit ghgprotocol.org/sites/default/files/ghgp/standards/GHGP_GPC_0.pdf

BUILDINGS

In 2023, Albuquerque's community-wide building emissions equaled 3,113,205 metric tons of CO_2 . This made up more than half (56%) of Albuquerque's total GHG emissions. Included in the buildings sector are commercial and industrial buildings, making up 60% of building emissions, and residential buildings, making up 38% of building emissions.

The two main sources of emissions in commercial and residential buildings are emissions from grid-supplied electricity and fuel combustion, such as natural gas⁵, wood, diesel, and propane. Other sources of emission include fugitive emissions⁶ and emissions from transmission and distribution losses⁷.

DID YOU KNOW?

Compared with other peer cities, Albuquerque has an aging building stock and relies more heavily on natural gas in its buildings. Retrofits that include weatherization and energy efficiency help low-income families reduce their energy burdens and help reduce emissions from our buildings.

HIGHLIGHTS

Public Service Company of New Mexico⁸ (PNM) is part of the climate solution by supplying the grid with clean energy.

Thanks to their renewable energy⁹ goal, community-wide GHG emissions have decreased since 2005.

OPPORTUNITIES

Compared with other peer cities, Albuquerque has an aging building stock and relies more heavily on natural gas in its buildings. Retrofits that include weatherization¹⁰ and energy efficiency help low-income families reduce their energy burdens and help reduce emissions from our buildings.

⁵ In Albuquerque, the New Mexico Gas Company (NMGC) is the publicly regulated entity supplying natural gas to the area. Natural gas is typically used for heating, cooking, and electricity generation.

⁶ Fugitive emissions are unintentional releases of gases from industrial processes caused by leaks or faulty equipment.

⁷ Transmission and distribution emissions results from energy losses that occur during energy distribution through power grids and pipelines.

⁸ Albuquerque's electric utility, Public Service New Mexico (PNM), generates energy from coal, natural gas, nuclear, solar, wind, and geothermal. PNM has committed to phasing out its coal and natural gas-fired power plants, while increasing its reliance on solar to achieve a goal of 100% emissions-free energy generation by 2026. pnm.com/energy-sources

⁹ Renewable energy is derived from natural sources that are replenished at a higher rate than they are consumed.

¹⁰ Weatherization is a range of improvements made to buildings to enhance energy efficiency and reduce utility costs.

- Maximize energy efficiency in your home to decrease energy consumption, lower your energy bills, and increase your comfort. Call PNM today to schedule a free energy audit for your home or business. pnm.com/checkup (residential) & pnmenergyefficiency.com (commercial)
- Sign up for Community Solar to get the benefits of solar without having to put panels on your home. cabq.gov/sustainability/energy/solar-resources#new-mexico-community-solar
- See if you qualify for free City-supported energy efficiency retrofits. cabq.gov/sustainability/buildings/buildings-resources#lower-your-energy-bills
- Consider installing energy-conserving products like an induction stovetop or heat pump. Make sure to check out available rebates. <u>clean.energy.nm.gov</u>
- If possible, install solar on your home. cabq.gov/sustainability/energy/solar-resources
- Support advanced building codes that promote energy efficiency and electrification.
 emnrd.nm.gov/ecmd/energy-code-for-buildings



TRANSPORTATION

Albuquerque contributes 2,169,199 metric tons of CO2e emissions (39% of total emissions) from the transportation sector. The majority of emissions come from the burning of fossil fuels in on-road travel, contributing a total of 1,796,920 metric tons of CO2e. On-road travel is made up of all the miles traveled by vehicles every day, including commuting to and from work. The remainder of the emissions comes from off-road vehicles and equipment, aviation, and rail.

HIGHLIGHTS

In 2023 Albuquerque adopted and made permanent the zero fares program, helping expand access to public transit. New micro-transit service using electric vans provide an alternative for those not near fixed bus routes. The New Mexico Rail Runner Express provides fast, reliable regional transportation between Belen and Santa Fe, providing a low-emission option for travelers. riometro.org

OPPORTUNITIES

Albuquerque is still heavily reliant on single-passenger vehicles, which not only drive GHG emissions and local air pollution, but poses a significant cost burden on families.

- Buy local: reduce your consumption-based emissions and support our local economy.
- If possible, minimize the distance between your home and place of work or school.
- Try out different forms of transportation, when possible, such as taking public transit, biking, or try an e-scooter. cabg.gov/bike; cabg.gov/transit
- Support discounted parking for low and zero-emission vehicles.
 cabq.gov/municipaldevelopment/residents/parking/green-vehicle-parking
- Try out the City's micro transit services like the Sun Van Paratransit and ABQ Ride Connect.
 cabq.gov/transit/services/paratransit-service; cabq.gov/transit/services/abq-ride-connect
- Try out the City's Affordable Mobility Platform, an electric vehicle car-share located in the heart of Albuquerque forthmobility.org/goforth
- Consider purchasing an electric vehicle (EV), if able, and check for any available rebates clean.energy.nm.gov; pnmdriveelectric.com





WASTE & WASTEWATER

Albuquerque's waste sector contributes 136,892 metric tons of CO₂ emissions. This is made up of 135,220 metric tons of CO₂ emissions from landfill waste, and 1,692 metric tons of CO₂ emissions from wastewater treatment. This is about 2% of the city's total emissions based on this sector-based inventory. In consumptionbased inventories, waste often is listed as the largest sector due to the lifecycle emissions associated with upstream activities, like the production, processing, and transportation of goods and materials outside of community boundaries.

There are two forms of waste included in this sector: solid waste and wastewater. Solid waste is garbage that is put in the landfill. GHGs like methane¹¹ are released when organic matter, like food or yard waste, breaks down in an oxygen-starved environment. Wastewater emissions are caused by fewer, more potent GHGs as wastewater is being treated. abcwua. org/education-30 swrp

HIGHLIGHTS

The Albuquerque Bernalillo County Water Utility Authority generates about 70% of the plant's energy needs through cogeneration - trapping waste methane and converting it to electricity to power their wastewater treatment facility.

DID YOU KNOW?

The largest contributor to emissions in this sector is caused by organic material in the landfill. Reducing our food waste can save a household of four people up to \$56 per week!

OPPORTUNITIES

The largest contributor to emissions in this sector is caused by organic material in the landfill. Reducing our food waste can save a household of four people up to \$56 per week and composting remaining food waste into a healthy soil amendment can feed local plants and reduce our GHG emissions.

- Reduce food waste: designate an "Eat First" place in your refrigerator to put items that need to be eaten very soon. Find places to donate excess food.
- · Compost: consider composting your kitchen and yard waste at home, at a community compost site, or by using a commercial composter. cabq.gov/startcomposting
- Repair your items whenever possible before discarding them. cabq.gov/fixit
- Find out more by visiting the City's Waste Is A Resource webpage at cabg.gov/foodwaste.
- · Keep our recycling streams free from contamination. If you're not sure, go to cabq.gov/solidwaste/recycling/recycle-coach.

¹¹ Methane is a colorless and odorless greenhouse gas that is 28-81 times more potent than CO₂. ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Chapter07_SM.pdf



AGRICULTURE, FORESTRY, & LAND USE

The Agriculture, Forestry, and Land Use sector includes all emissions and GHGs removals from our lands. This sector is unique in that it can act as both an emission source and sink¹². Emissions typically come from the use of synthetic fertilizers and emissions from livestock and soil management practices. Trees, forests, and natural grasslands act as a carbon sink, naturally removing carbon in the air and sequestering¹³ it in the soil.

HIGHLIGHTS

Thanks to our Bosque canopy and urban trees, Albuquerque sequestered a carbon equivalent of 7,091 metric tons of CO2 in 2023. Also, the City, with over 300 parks, and 30,000 acres of open space, has a goal to plant 100,000 trees in Albuquerque by 2030. letsplantabq.org

OPPORTUNITIES

A mature tree planted on the west side of the house can reduce the temperature in the house by 10 degrees. And, if planted correctly, selecting appropriate species, we increase the climate benefits of trees.

DID YOU KNOW?

A mature tree planted on the west side of the house can reduce the temperature in the house by 10 degrees. And, if planted correctly, selecting appropriate species, we increase the climate benefits of trees.

- Consider dietary changes, like eating more fruits, vegetables, and plant-based foods.
- Plant a tree and see if you are eligible for a \$100 rebate from the Water Utility Authority abcwua.org/conservation-rebates-tree-rebates.
- Support the City's tree planting goal by volunteering with Let's Plant ABQ. letsplantabg.org
- Work with your community leaders and state legislators to advocate for funding supporting park improvements, tree plantings and pollinator gardens.
- Purchase food from local farms. Check out available community-supported agriculture programs near you.
- Get your home or business certified as a Back Yard Refuge. friendsofvalledeoro.org/abq-backyard-refuge



¹² An emission sink is a natural or artificial reservoir that absorbs more carbon dioxide and other greenhouse gases from the atmosphere than it releases.

¹³ Sequestration is the act of capturing and storing carbon dioxide which reduces its concentration in the atmosphere.

GREENHOUSE GAS INVENTORY



sustainability@cabq.gov



cabq.gov/sustainability