

Statewide Transportation Greenhouse Gas Reduction Accomplishments Report

July 1, 2025





Table of Contents

Acronyms and Abbreviations	3
Executive Summary	8
Introduction	10
Climate Action in Colorado	12
Greenhouse Gas Reduction Roadmaps and Transportation Vision 2035	14
State and Federal Funding	16
Colorado SB21-260 Enterprises	16
Federal Funding Support	17
Carbon Reduction Program	17
National Electric Vehicle Infrastructure (NEVI) Program	18
Climate Pollution Reduction Grants	19
GHG Reduction Strategies, Plans, Programs and Policies	20
Reducing or Eliminating Tailpipe Pollution from Vehicles	20
Transportation Electrification Support	20
Colorado EV Plans	21
Utility Transportation Electrification Plans	22
Adoption of Vehicle Emissions Standards	22
EV Infrastructure Development	25
Community Access Enterprise	25
Charging Station Funding Programs	26
Additional Supportive State Legislation	29
Alternatively Powered Aircraft Infrastructure	30
Vehicle Exchange Colorado Program	32
Clean Medium/Heavy-Duty Trucks and Buses	32
Clean Truck Strategy	31
Medium- and Heavy-Duty Charging Infrastructure Study	33
Fleet Zero-Emission Resource Opportunity (Fleet-ZERO) Program	33
Clean Transit Enterprise	34
Electric School Buses	34
EV Tax Credits	35
Fleet Electrification	36
Colorado State Fleet	36
Clean Fleet Enterprise	37
Low Carbon Fuels	38
Clean Hydrogen	38
Alternative Aircraft Fuels	39
Education and Workforce Development	40

EV CO: Electric Vehicle Education	40
ZEV Workforce Development Grants	40
Local Government Electric Vehicle Readiness Planning Grants	41
Reducing VMT and Providing More Travel Choice	41
Colorado's Greenhouse Gas Pollution Reduction Standard	42
Passenger Rail Development	45
Bus Service Expansion	46
Bustang (Interregional Bus Service)	46
Outrider	49
Bus Rapid Transit	50
Increasing Use of Public Transportation	50
Zero Fare and Transit Pass Programs	50
Mobility Hub Development	52
Increasing Funding for Transit	54
Active Transportation	55
Expanding the Active Transportation Network	55
Electric Micromobility and Shared Modes	59
Transportation Demand Management	60
CDOT Strategic Funding Programs	62
Multimodal Transportation and Mitigation Options Fund	62
Transportation Alternatives Program	63
Strategic Growth	63
Land Use Research and Analysis	63
Supportive Legislation	64
Transportation-Related GHG Emissions in Colorado	68
Background	68
Methodology	68
Historical Statewide Transportation Emissions	69
Transportation Trends	70
Population	70
VMT	71
VMT per Capita	72
Electric Vehicle Registrations	74
Statewide Transit Data	76
Revenue Service Miles	76
Unlinked Passenger Trips	78
Active Transportation	80
Fuel Consumptions and Sales	81
Conclusion	83

EV Acronyms and Abbreviations

Greenhouse Gases (GHGs)

CO	Carbon Dioxide
CH_4	Methane

N₂O Nitrous Oxide

Other Abbreviations

ACT	Advanced Clean Trucks
ADU	Accessory Dwelling Units
APCD	Air Pollution Control Division
AQCC	Air Quality Control Commission
BAU	Business as Usual
В	Billion
BEV	Battery Electric Vehicle
BRT	Bus Rapid Transit
C.R.S.	Colorado Revised Statute
CAA	Clean Air Act
CAB	Colorado Aeronautical Board
CAE	Community Access Enterprise
CASR	City and County of Denver's Climate Action, Sustainability and Resiliency Office
CAMP	Community Accelerated Mobility Project
CCC	Colorado Clean Cars
ССР	Climate Change Program
CCR	Code of Colorado Regulations
CDE	Colorado Department of Education
CDOT	Colorado Department of Transportation
CDPHE	Colorado Department of Public Health and Environment
CEO	Colorado Energy Office
CEP	Clean Energy Plan
CFE	Clean Fleet Enterprise
CFI	Charging and Fueling Infrastructure
CFR	Code of Federal Regulations
CLEAR	Colorado Low Emission Automobile Regulation
CLEER	Clean Energy Economy for the Region
CMAQ	Congestion Mitigation and Air Quality Improvement Program
CNG	Compressed Natural Gas
CO ₂ e	CO2 Equivalent
CO2FCC	Direct CO2 Emissions from Combustion of Fossil Fuel
COVID-19	Coronavirus Disease 2019
CPRG	Climate Pollution Reduction Grants
CRP	Carbon Reduction Program

CRISI	Consolidated Rail Infrastructure and Safety Improvements
CSU	Colorado State University
CTE	Clean Transit Enterprise
СТІО	Colorado Transportation Investment Office
DCFC	Direct Current Fast Charging
DIA	Denver International Airport
DNR	Department of Natural Resources
DOE	United States Department of Energy
DOLA	Colorado Department of Local Affairs
DOR	Colorado Department of Revenue
DORA	Colorado Department of Regulatory Agencies
DOT	Department of Transportation
DPA	Colorado Department of Personnel and Administration
DRCOG	Denver Regional Council of Governments
DVMA	Department of Military and Veterans Affairs
El	Energy Innovation
EO	Executive Order
EPA	Environmental Protection Agency
EPS	Energy Policy Simulator
EV	Electric Vehicle
EVCRAA	Electric Vehicle Charger Reliability & Accessibility Accelerator
eVTOL	Electric Vertical Take Off and Landing Aircraft
Fleet-ZERO	Fleet Zero-Emission Resource Opportunity
FRPR	Front Range Passenger Rail
FY	Fiscal Year
GA	General Aviation
GHG	Greenhouse Gas
GIS	Geographic Information System
GVMPO	Grand Valley Metropolitan Planning Organization
GVWR	Gross Vehicle Weight Rating
GWP	Global Warming Potential
GWP100	100-year Global Warming Potential
GWP20	20-year Global Warming Potential
HB	House Bill
HCFC	Hydrochlorofluorocarbon
HD	Heavy Duty (vehicle)
HFC	Hydrofluorocarbon
HFE	Hydrofluoroether
HGLs	Hydrocarbon Gas Liquids
HPTE	High Performance Transportation Enterprise
IIJA	Infrastructure Investment and Jobs Act
IPCC	Intergovernmental Panel on Climate Change

IRA	Inflation Reduction Act
LD	Light Duty (vehicle)
LEV	Low Emission Vehicle
LNG	Liquefied Natural Gas
LPG	Liquefied Petroleum Gas
LULUCF	Land Use, Land-Use Change, and Forestry
MAP-21	Moving Ahead for Progress in the 21st Century Act
MOVES	Motor Vehicle Emission Simulator (EPA)
MOU	Memorandum of Understanding
MD	Medium Duty (vehicle)
MMOF	Multimodal Transportation and Mitigation Options Fund
Μ	Million
MMT	Million Metric Tons
MPO	Metropolitan Planning Organization
MSRP	Manufacturer's Suggested Retail Price
NEVI	National Electric Vehicle Infrastructure Program
NAAQS	National Ambient Air Quality Standards
NFRMPO	North Front Range Metropolitan Planning Organization
NMVOC	Non-Methane Volatile Organic Compound
NREL	National Renewable Energy Laboratory
NTA	Near Term Actions
NTD	National Transit Database
OIM	Office of Innovative Mobility (CDOT)
PACOG	Pueblo Area Council of Governments
PCAP	Priority Climate Action Plan
PD	Procedural Directive
PFC	Perfluorocarbon
PHEV	Plug-In Hybrid Electric Vehicle
PM	Particulate Matter
PPACG	Pikes Peak Area Council of Governments
PUC	Public Utilities Commission
QA	Quality Assurance
QC	Quality Check
RAM	Regional Air Mobility
RFA	Request for Application
RBS	Roadmap Baseline Scenario
RCI	Resident, Commercial, and Industrial
RMI	Rocky Mountain Institute
RSM	Revenue Service Miles
RTD	Regional Transportation District
RTP	Regional Transportation Plan
SAF	Sustainable Aviation Fuels

SB	Senate Bill
SDO	State Demography Office
SIT	State Inventory and Tool
TAP	Transportation Alternatives Program
ТС	Transportation Commission
TDM	Transportation Demand Management
TEP	Transportation Electrification Plan
ТМО	Transportation Management Organization
TNC	Transportation Network Company
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compound
VXC	Vehicle Exchange Colorado
WIG	Wildly Important Goal
WISHH	Western Inter-States Hydrogen Hub
ZEV	Zero Emission Vehicle





Executive Summary

The Colorado Department of Transportation (CDOT) developed this Statewide Transportation Greenhouse Gas (GHG) Reduction Accomplishments report to meet the requirements of the CDOT GHG Planning rule, which was adopted by the Transportation Commission (TC) in December 2021. This report was developed in consultation with the Colorado Energy Office (CEO), Colorado Department of Public Health and Environment (CDPHE) Air Pollution Control Division (APCD), and the Colorado Department of Local Affairs (DOLA).

Colorado is already seeing the effects of climate change, with an increase in the magnitude and frequency of heat waves, wildfires and extreme precipitation events. These climate change effects will have wide ranging impacts on Colorado's ecosystems, water resources, agriculture, energy, public health, outdoor recreation and tourism, and transportation infrastructure. As a result of these impending threats, Colorado has taken the initiative to ensure that current and future generations can thrive in the Centennial State. The passage of House Bill (HB)19-1261 in 2019 set statewide GHG emission reduction targets across all sectors of the economy in Colorado. These targets were updated through the passage of Senate Bill (SB)23-016 in 2023.

Transportation is the largest contributor to GHG emissions in Colorado. Therefore, significant efforts are being made across Colorado to reduce emissions to support our effort to achieve economywide GHG reduction goals. To reduce emissions across the entire transportation sector, Colorado has developed a range of policies, regulations, programs, and funding streams that address each component of the transportation sector: light duty (LD) vehicles, medium duty (MD) and heavy duty (HD) vehicles, buses, and aviation. This report highlights progress on these strategies with a focus on the last several years of effort. Several highlights include:

- Creation of four business enterprises to generate dedicated funding for transportation electrification and mobility projects. To date, these enterprises have brought in approximately \$150 million in additional revenue for vehicle electrification projects and \$27 million in additional revenue for mobility projects. Over the next five years, these enterprises are expected to bring in an additional \$435 million for vehicle electrification projects and \$675 million for mobility projects.
- Creation of the first in the nation GHG reduction requirements for the approval of projects and funding in regional transportation planning (RTP) documents.
- Expansion of Colorado's electric vehicle (EV) infrastructure charging network, with 81% of the total state highway network within 30 miles of public Direct Current Fast Charging (DCFC).
- A three year phased pilot expansion of CDOT's interregional Bustang bus service resulting in a doubling of revenue service miles (RSM) on the I-25 corridor and a tripling of RSM on the I-70 corridor and all-time high ridership of 290,737 passenger boardings in Fiscal Year (FY) 2024.

- Adoption of vehicle emissions standards expected to reduce air pollution including ozone forming precursors and GHGs which will improve public health outcomes.
- Colorado passed California to lead the nation in EV sales percentages in the third quarter of 2024, with new EV purchases exceeding 30% of all Colorado LD vehicle sales in the fourth quarter of 2024. In the first quarter of 2025, EV sales remained strong at 26%.
- Passing nation leading policies to increase availability of housing in areas that are well served by transit, by removing zoning obstacles and onerous parking requirements for multifamily housing near transit corridors.

While Colorado has a lot to be proud of regarding the development and implementation of strategies to reduce emissions from the transportation sector, transportation metrics have not seen progress as quickly as other sectors of Colorado's economy, as demonstrated by many of the transportation trends including annual vehicle miles traveled (VMT), fuel use and resulting GHGs. This comes as no surprise given that GHG reductions in this sector rely on changing the transportation habits and technology used by millions of people across the many transportation choices made over the course of their daily lives.

Importantly, Colorado is not seeing growth in transportation related GHG emissions even with significant population growth. Between 2005 and 2020 Colorado's population increased by 24% while transportation related GHG emissions decreased by 14%. The significant and intentional investments Colorado is making now to provide more travel options, expand safe and accessible bicycle and pedestrian infrastructure, promote vehicle technology and efficiency improvements, and provide infrastructure to support EV adoption are resulting in emissions reductions. The continued execution of the transportation strategies identified in the Colorado GHG Roadmap are foundational to continued GHG reduction progress over the next several decades.





Introduction

CDOT has developed this Statewide GHG Reduction Accomplishments report to meet requirements of CDOT's GHG Transportation Planning Standard¹ as adopted by the TC in December 2021. The GHG Transportation Planning Standard focuses on the connection between public sector-funded transportation projects and vehicle travel: namely that what is built, combined with the emissions of vehicles themselves, influences driving patterns and commensurate GHG pollution. The Standard endeavors to isolate what role CDOT and the state's five Metropolitan Planning Organizations (MPOs) play in affecting travel through decisions about where and how to build infrastructure. The Standard establishes GHG reduction targets for each agency and requires each agency to determine whether the total GHG emissions expected from vehicles traveling on the transportation network, including proposed future transportation projects, meet the reduction targets. The rule requires that beginning July 1, 2025, and every three years thereafter, the Executive Director on behalf of CDOT shall prepare for the TC and Air Quality Control Commission (AQCC) a comprehensive publicly released report on statewide transportation GHG reduction accomplishments.

The transportation sector is the largest contributor to GHG emissions in Colorado, with LD vehicles being the largest source of emissions within this sector. As a result, Colorado has adopted and implemented a wide range of strategies, policies, programs, regulations, and legislation to support decarbonizing the transportation sector. Colorado's strategy toward transportation-sector emissions reductions follows the sector-by-sector approach to emissions reduction strategies outlined in the state's two GHG Pollution Reduction Roadmaps. Like in other sectors, Colorado's approach to the transportation sector takes a strategic, balanced approach with a combination of incentives and investments and, where appropriate, regulatory actions and rules, to drive adoption of cleaner vehicle technologies, planning frameworks, and strategies that make it easier and more convenient for a wide variety of decision-makers - from individual drivers to large corporate and government fleets - to make the best choices for their transportation among state agencies including, but not limited to the: Colorado Governor's Office, CEO, CDPHE, CDOT, Colorado Public Utilities Commission (PUC), DOLA, as well as partners at Federal Highway Administration (FHWA) and MPOs.

While the strategies highlighted throughout this document focus on reductions in GHG emissions, they also achieve numerous co-benefits. Targeted public policies which reduce GHG emissions from the transportation sector yield substantial near-term and local public health, environmental health, and economic benefits. Emission standards policies, like the ACT rule, the Low-NOx rule, and the CCCs Standard, yield reductions in particulate pollution and ground-level ozone, resulting in fewer premature deaths, less hospital visits and billions

¹ 2 CCR 601-22, § 8.06.1.

in overall healthcare savings for Colorado citizens.² Policies that foster active transport, such as the Transportation Alternatives Program (TAP), help Coloradans incorporate frequent physical activity into their daily lives, which can improve cardiovascular fitness, lower the risk of cancer mortality, and reduce obesity rates.³ Economic benefits also flow from policies that promote the adoption of zero-emission EVs; the CCCs standard is expected to save the average driver approximately \$14,250 in lifetime costs compared to conventional internal combustion vehicles.⁴

Policies that expand travel options (e.g. transit service, tele-travel, walking and bicycling), provide travel time savings, and reduce the need to use personal vehicles will benefit travelers through cost savings from reduced vehicle fuel and maintenance costs. For example, the GHG Transportation Planning Standard is expected to result in \$11 billion (B) in savings between 2022 and 2050 from reduced vehicle operating costs.⁵ Policies that expand travel options also reduce the costs associated with vehicle crashes, including medical, insurance, vehicle property, and lost workplace productivity costs. Policies that support dense, walkable downtowns and main streets tend to spark significant economic vitality in those areas. Investments in transit also spur economic benefits such as increased property values and an agglomeration of benefits from more efficient land use.

This first periodic report provides information related to progress on development and implementation of transportation related GHG reduction strategies that have occurred in the state from approximately January 2022 to July 1, 2025, as required by the CDOT GHG Transportation Planning rule. However, some important work that predates this time period is included as well. Most of the actions reported here are at the state level, although some federal and local actions are noted as well.

² Sophie Tolomiczenko, et al., ERM, <u>The Benefits of the Colorado Clean Cars Standard</u> (May 2023), at 9.

³ Ting Xia, et al., <u>Cobenefits of Replacing Car Trips with Alternative Transportation: A Review of</u> <u>Evidence and Methodological Issues</u>, Journal of Environmental and Public Health (July 2013).

⁴ Sophie Tolomiczenko, et al., ERM, <u>The Benefits of the Colorado Clean Cars Standard</u> (May 2023), at 12.

⁵ CDOT, Cost-Benefit Analysis for Rules Governing Statewide Transportation Planning, (Aug. 31, 2021) For a copy of this document, please email elizabeth.rollins@state.co.us.

Climate Action in Colorado

Colorado's climate is changing. The state has warmed 2.5°F since the beginning of the 20th century, and temperatures have remained consistently higher than the long-term (1895-2020) average since 1998.⁶ Future estimates predict an additional 2.5°F to 5°F of warming in Colorado by 2050.⁷ Six of the eight warmest years on record for Colorado have occurred since 2012.⁸ These changes to Colorado's climate from warming are causing increases in extreme temperatures, droughts, wildfires and more frequent and severe floods.

While a natural part of Colorado's climate, the intensity of droughts has increased within the state. There are many river basins that originate in the state, and any changes in precipitation patterns pose enormous risks to water supplies for cities and farms across the region. Colorado has nearly constantly been in a drought since 2001, with three historic droughts occurring in 2002, 2012, and 2018.⁹

Higher temperatures and drought have increased the frequency, severity, and extent of wildfires. The 20 largest wildfires in Colorado history have all occurred in the last 25 years.¹⁰ Before 2002, Colorado had never recorded a fire that burned more than 100,000 acres. By 2021, the state had experienced five such fires, four of which occurred after 2018.¹¹ Colorado's five most destructive fires by homes lost have all occurred since 2012.¹² With the exception of California, Colorado has the highest concentration of at-risk homes (321,294) and significant estimated reconstruction costs (\$140.9B).¹³

¹¹ Id.

¹² Id.

⁶ Rebekah Frankson, et al., NOAA Technical Report NESDIS 150-CO, <u>Colorado State Climate Summary</u> (2022), at 1.

⁷ Colorado Water Conservation Board, <u>Climate</u>.

⁸ Rebekah Frankson, et al., NOAA Technical Report NESDIS 150-CO, <u>Colorado State Climate Summary</u> (2022), at 1.

⁹ Id. at 5.

¹⁰ Division of Fire Prevention and Control, Colorado Department of Public Safety, <u>Historical Wildlife</u> <u>Information</u>.

¹³ Corelogic. 2024. <u>Wildfire Risk Report 2024</u>.

Emissions from transportation, when combined with ever hotter temperatures and summer days, are affecting Colorado's air quality, particularly in urban areas with high traffic volume. In addition to GHGs, many other air pollutants are also emitted from transportation. Pollutants emitted from vehicles, including particulate matter (PM), volatile organic compounds (VOCs), and nitrogen oxides (NOx), have direct impacts on the health of Coloradans, especially those who live closest to our busiest roads, often economically disadvantaged and minority populations.¹⁴

Living in an area with high levels of air pollution is directly linked to higher rates of asthma, pulmonary disease, cardiovascular disease, reproductive complications, and mortality.¹⁵ Reductions in GHG emissions from transportation also reduce many emissions of these other air pollutants that lead to additional benefits to public health and the environment.

Addressing climate change is a global concern that requires collective efforts at the regional, state and local levels. In 2019, Governor Jared Polis signed <u>HB19-1261</u>, the "Climate Action Plan to Reduce Pollution" which set statewide GHG emission reduction goals and mandated new considerations for the AQCC. These goals apply economywide and not just to the transportation sector alone. In 2023, Governor Polis signed <u>SB23-016</u> "GHG Emissions Reduction Measures" which updated and added additional GHG reduction goals. These goals include:

- Reduce 2025 GHG emissions by at least 26% of 2005 levels
- Reduce 2030 GHG emissions by at least 50% of 2005 levels
- Reduce 2035 GHG emissions by at least 65% of 2005 levels
- Reduce 2040 GHG emissions by at least 75% of 2005 levels
- Reduce 2045 GHG emissions by at least 90% of 2005 levels
- Achieve net zero GHG emissions by 2050

The transportation sector is a significant contributor to GHG emissions in Colorado. Historically, the electric power sector has been the largest source of GHG emissions with the natural gas and oil systems sector and transportation sector typically being the second or third largest sources annually. LD vehicles (e.g. passenger cars, light trucks, small vans, pickup trucks, SUVs, etc) are the largest source of emissions followed by MD and HD (e.g. larger delivery vans, flatbed trucks, transit buses, tractor trailers, dump trucks, etc.) vehicles. Colorado's efforts to reduce emissions across the transportation sector includes the ongoing development and implementation of various strategies, policies and programs.

¹⁴ Tegan K. Boehmer, et al., Centers for Disease Control and Prevention, <u>Residential Proximity to Major</u> <u>Highways - United States, 2010</u> (Nov. 22, 2013).

¹⁵ Id.

Greenhouse Gas Reduction Roadmaps and Transportation Vision 2035

After the adoption of HB19-1261 Governor Polis directed state agencies to develop a comprehensive <u>GHG Pollution Reduction Roadmap 1.0</u>, which was issued in January 2021. This roadmap identified distinct actions for specific economic sectors, including transportation, to support progress towards meeting the GHG targets of HB19-1261 with a specific focus to achieve a target of 50% reduction in GHG pollution by 2030. The first issuance of the roadmap established near term actions (NTA) for the transportation sector including:

- Support for adoption of zero emissions vehicles (ZEV)
- Development of a Clean Trucking Strategy and Fleet Rules
- Vehicle Miles Traveled (VMT) Reduction Strategies
- Consideration of Indirect Source Rules
- Consideration of a Clean Fuels Standard
- Strategies to reduce aviation emissions

In February 2024 Colorado issued an updated GHG <u>Pollution Reduction Roadmap 2.0</u>. Building on the previous roadmap this update lays out an ambitious set of new NTA for the state to prioritize in 2024, 2025 and 2026 including:

- Encourage Land Use Policies to Build More Housing, Grow Walkable Neighborhoods and Increase Transit Access
- Encourage Land Use Policies to Support Strategic Growth
- Build More Complete and Connected Streets
- Expand and Increase Statewide Transit Service, Including Passenger Rail
- Pursue Programs to Increase Transit Ridership
- Streamline Local EV Charger Deployment
- Pursue Clean Miles Policies
- Reduce Pollution from Urban Freight

The GHG Reduction Roadmaps provide an organized approach to support progress in achieving the economywide GHG reduction targets including strategies for the transportation sector. The vast majority of programs, projects, regulations, and legislation which have occurred in the last three years are actions tied to the priorities established in the two Roadmaps referenced above — addressing emissions through either vehicle engine and fuel technology or seeking to provide Coloradans with more travel options.

To supplement the GHG Pollution Reduction Roadmaps and the GHG Transportation Planning standard, Colorado issued the <u>Colorado Transportation Vision 2035</u> in November 2024. Vision 2035 is a systematic framework for expanded transportation choices that outlines goals and strategies that expand transportation options to meet Colorado's climate, affordability, safety, and equity goals. By doing so, it will advance the State's ability to increase access to, and improve the quality of, transportation options over the next ten years. Specifically, Vision 2035 focuses on the emissions that state, regional, and local policies and investments can

impact by the year 2035 beyond vehicle electrification alone, mostly focused on mode shift. Mode shift is defined as being "a traveler's choice to supplement or avoid driving to also use a lower cost and more convenient transportation modes such as transit, biking, walking and carpooling." The main emissions reduction goal of Vision 2035 is additional reductions of 1.2 MMT from non-auto modes of travel. This goal is supported by the following subgoals:

- Double Colorado's non-auto mode share from 9.6% to 19.2% by 2035.
- Increase current transit service from 79 million transit revenue miles to 145 million (about 83%) by 2035.
- Increase in bicycle infrastructure statewide by 81% (3,540 miles of new bicycle routes).
- Increase in sidewalks statewide by 3.4% (1,345 miles of new sidewalks on existing streets).
- A Transit-Oriented Development goal of at least 52% of new housing units in transit oriented areas and 77% within existing Census Urban Areas.

These sub-goals utilize strategies including the expansion of transit service, implementing policies to encourage compact land use and walkable communities, reducing the number and distance of vehicle trips, and increasing travel choice by investing in bicycle and pedestrian infrastructure and micro mobility services that assist with "first and last mile" connections to transit facilities to meet the main emissions reduction goal.





State and Federal Funding

Colorado has taken a comprehensive approach to supporting adoption of clean vehicles, which incorporates incentives for EV adoption by individuals and businesses, public investment in and grants for charging infrastructure, requirements for electric utilities to support EV adoption, public education and outreach, EV ready building codes, and regulatory standards applied to vehicle manufacturers. The net effect of this approach has been to make Colorado a national leader in EV adoption, with market share among new vehicles growing from a little over 2% in 2018 to over 25% today. At times over the last year, Colorado has had the highest EV market share in the nation. This reflects the high levels of consumer demand, and Colorado's support for expanded consumer choice of vehicles. In addition, Colorado is utilizing state and federal funding sources to advance multimodal, transit and land use strategies.

Colorado SB21-260 Enterprises

A key to supporting efforts for lowering emissions from the transportation sector is to provide consistent, reliable funding for specific projects and programs. Colorado has established several enterprises with this purpose. In June 2021 Governor Polis signed <u>SB21-260</u> "Sustainability of the Transportation System" which, among other elements, established three new state enterprises focused on distinct contributors to local air pollution, and incentivized transportation electrification in an effort to reduce emissions and improve local air quality. Each of these entities is funded by new fee revenues (including retail delivery fees and transportation network company (TNC) fees) and each is managed by an appointed Board that will allocate and prioritize funding across eligible projects and programs within each distinct enterprise.

Each of the enterprises established their respective fees which the Department of Revenue began to collect as of July 1, 2022. Additionally, each of the enterprises met a statutory requirement to develop and post 10-year plans by June 1, 2022. These plans are available online at the following links: <u>Community Access</u> | <u>Clean Fleet</u> | <u>Clean Transit</u>. These plans are meant to guide programs toward further GHG emissions reductions from the transportation sector and other benefits to fee payers and the public as defined in the enabling law. Details on programs implemented through these enterprises are discussed in more detail throughout this document.

Federal Funding Support

The Infrastructure Investment and Jobs Act (IIJA), signed into law in 2021, is a comprehensive law that provides substantial funding for infrastructure projects across the United States. It authorizes \$1.2 trillion for transportation and infrastructure spending, with \$550B over five years to repair, rebuild, and modernize existing infrastructure. This includes funding for many of Colorado's priority areas. Funding is available both through formula grants directly to state agencies and through competitive grants which the state/agencies may decide to pursue. Three programs highlighted below include the Carbon Reduction Program (CRP), National Electric Vehicle Infrastructure (NEVI) program, and Climate Pollution Reduction grants (CPRG).

Carbon Reduction Program

The IIJA established the CRP through which CDOT developed a <u>Colorado Carbon Reduction</u> <u>Strategy</u> in November 2023 that was approved by FHWA in February 2024. The CRP provides state Departments of Transportation (DOTs) and MPOs with funds for projects designed to reduce carbon dioxide (CO_2) from on-road highway sources. The CRP requires each state to develop a Carbon Reduction Strategy, in consultation with MPOs, to support these efforts and identify projects and strategies to reduce transportation emissions.

The Carbon Reduction Strategy is meant to include safe, reliable, and cost-effective projects and strategies that support the reduction of transportation emissions. It allows for a variety of strategies, from facilitating mode shift away from single occupancy vehicles (SOVs) to deploying more energy-efficient street lighting. The Carbon Reduction Strategy may also include strategies to reduce emissions from the construction of transportation assets.

Colorado is slated to receive \$86 million from 2022 through 2026 under the CRP. The CRP requires that 65% of these funds be allocated to urbanized areas, in proportion to the relative share of Colorado's population. The remaining 35% of funds may be allocated at the State's discretion. The Denver Regional Council of Governments (DRCOG) has programmed \$29.4 million in CRP funds for FY22 to 27 to 19 different projects. Project types include bicycle and pedestrian facilities, bus service, bus rapid transit (BRT), transit passenger facilities, traffic signal upgrades, and transit and multimodal facilities. North Front Range Metropolitan Planning Organization (NFRMPO) awarded \$4.1 million in CRP funds across seven bicycle and pedestrian projects and one transportation management organization (TMO) project. Pueblo Area Council of Governments (PACOG) has awarded CRP funds to a bicycle trail project. Pikes Peak Area Council of Governments (PPACG) has awarded \$5.7 million to projects acquiring battery electric buses, hybrid transit vehicles, bicycle and pedestrian improvements, and wetland mitigation projects. Grand Valley Metropolitan Planning Organization (GVMPO) has awarded \$2.4 million to multimodal improvement projects and expanded transit service.

National Electric Vehicle Infrastructure (NEVI) Program

Along with CRP, the IIJA established the new NEVI Program. NEVI is a formula funding program focused on the construction of publicly-available DC fast-charging stations that meet a set of minimum standards, and Colorado's anticipated 5-year apportionment of funds is \$56.5 million. CDOT is the lead agency for the NEVI Program in Colorado, but the CEO is a key partner that manages the award and implementation of grants to private, public, and nonprofit grantees through the existing DCFC Plazas Program.

Between 2023 and 2024, Colorado completed three rounds of awards in the DCFC Plazas Program, including a total of 60 NEVI-funded sites across the State. To date, six NEVI-funded sites have opened to the public with another ten currently under construction and 22 in design. On February 6, 2025, the Federal Highway Administration (FHWA) issued a letter that rescinded the current NEVI Formula Program Guidance, suspended approval of state plans, and stated that, "effective immediately, no new obligations may occur under the NEVI Formula Program until the updated final NEVI Formula Program Guidance is issued and new State plans are submitted and approved." This letter also said that all existing, previously approved state NEVI Plans were revoked and that states could only access and seek reimbursement for whatever NEVI Program funds had already been obligated in the federal grant management system.

In the case of Colorado, this means that currently only a subset of existing projects funded with NEVI dollars can proceed, while others will be put on pause until the funding pause is resolved. On May 7, 2025, Colorado and 16 other states filed a lawsuit against the Federal Highway Administration seeking a court order against FHWA's unlawful actions, and a restoration of the EV infrastructure funding.

Climate Pollution Reduction Grants

Authorized by the Inflation Reduction Act (IRA) in 2022, the U.S. Environmental Protection Agency's (EPA) CPRG program is providing \$5B in grants to states, local governments, tribes, and territories to develop and implement ambitious plans to reduce GHG emissions and other harmful air pollution. CEO received a CPRG planning grant in July 2023, part of that funding was required to be used to develop Colorado's Priority Climate Action Plan (PCAP). Colorado's PCAP articulates measures that will enable the State of Colorado to meet our GHG reduction goals and is based heavily on Colorado's GHG Pollution Reduction Roadmaps. It is divided into three sections: statewide priority measures, local measures, and Ute Mountain Ute priority measures. Following this report, EPA awarded CEO a \$129 million implementation grant in July 2024 to support implementation of several emission reduction measures, \$50 million of which will go to CEO's Local Implementation, Mitigation, and Policy Action (Local IMPACT) Accelerator. The Accelerator will provide grant funding to support local government policy adoption in four key sectors: buildings, land use, transportation, and waste. The goal of the Accelerator is to support local governments with policy adoption to bolster local resilience, reduce emissions, and advance other State priorities such as improved air quality. Applicants can apply for policy funding alone or apply for both policy funding and project funding together. Applicants cannot apply for project funding alone.

Policy adoption areas include land use policies that promote compact housing, parking management, EV charging, renewable energy, and discourage greenfield development, as well as transportation policies that encourage high quality active transportation infrastructure, transit prioritization, transportation demand management (TDM), and feebased vehicle registration incentives. There will be two application rounds in 2025, with the first round opening June 16, 2025 and the second round opening October 1, 2025.

GHG Reduction Strategies, Plans, Programs and Policies

Reducing GHG emissions from the transportation sector represents a significant challenge. Doing so requires the ability to influence the daily transportation decisions of millions of individuals and hundreds of thousands of businesses in the state. Colorado's strategies to reduce emissions from the transportation sector primarily include reducing or eliminating carbon emissions from transportation vehicles and reducing VMT by providing more travel options or making it easier for people to afford housing near where they work. Strategies to achieve these outcomes are discussed below.

Reducing or Eliminating Tailpipe Pollution from Vehicles

Transportation Electrification Support

A key strategy to reduce carbon emissions and other air pollution from the transportation sector involves supporting the transition of internal combustion engine vehicles to battery electric vehicles (BEV) or plug-in hybrid electric vehicles (PHEV). When vehicle emissions are considered from a life cycle (well to wheels) perspective, EVs in Colorado are already cleaner than gas/diesel vehicles even with coal and natural gas still in the electric grid fuel mix. Moreover, as the power supply gets cleaner so will the life cycle emissions from EVs.¹⁶

Some key challenges facing the transition of internal combustion engine vehicles to EVs include: making EVs a more affordable option up-front, ensuring adequate public charging infrastructure, expanding EV options to choose from and establishing an adequate workforce to support equipment installation and vehicle maintenance. For nearly a decade, the CDPHE's AQCC has adopted vehicle sales standards to encourage manufacturers to supply and sell clean vehicles in Colorado. In addition, several state agencies have led the effort to support development of EV charging infrastructure across the state. Legislation was also passed to provide funding for various initiatives related to charging infrastructure and EV infrastructure planning, financial resources in the form of tax credits, grants and rebates, and the development of utility programs (most notably transportation electrification plans (TEP).

¹⁶ Access this information online on the DOE's <u>Alternative Fuels Data Center</u>.

Colorado EV Plans

In order to support vehicle electrification, Colorado has developed a series of plans to help guide necessary strategies and actions forward. The 2018 EV Plan established a statewide goal of 940,000 LD passenger EVs on the road by 2030 and committed CDOT, CEO, and CDPHE to work with transit agencies, electric utilities, and other stakeholders to establish timelines, strategies, and resources to achieve statewide ZEV) goals. The 2020 EV Plan maintained the previous 2030 target and added new strategies and elements focused on related topics such as MD and HD vehicle adoption, including for transit agencies and other public fleets.

In late 2022, state agencies began the process of updating the state's EV Plan to build off prior plans adopted in 2018 and 2020. The 2022 effort included multiple stakeholder engagement activities and a public comment period. Agencies finalized an updated 2023 EV Plan in Spring 2023. The EV Plan is a guiding document intended to help state agencies and stakeholders collaborate on shared strategies to accelerate EV adoption by documenting recent progress, establishing a near-term vision, and committing to goals and actions. The 2023 EV Plan includes several new goals and actions, as well as a summary status update on goals and actions from the 2020 EV Plan. The new EV Plan also features an increased focus on equity, electric trucks, electric micromobility (e.g., e-bikes, e-scooters), federal funding opportunities, and key implementation issues, such as charger reliability and charger permitting.

In February 2022 Colorado published the Transit ZEV Roadmap. The purpose of the Transit ZEV Roadmap is to identify the strategies, policies, and funding levels necessary to achieve the State's goals of 1,000 transit ZEVs on the road by 2030 and a 100% ZEV transit fleet by 2050. Over the course of 2021, CDOT staff engaged with transit agencies, local governments, utilities, and industry stakeholders to conduct an inventory of the current state transit fleet make-up, identify the challenges and opportunities presented by transit electrification, and recommend future actions necessary to achieve the numerical targets established in the 2020 Colorado EV Plan. Implementation of the final 37 identified action items in the roadmap has been underway ever since. In addition, the Transit ZEV Roadmap has served as a strong foundation for the development of the Clean Transit Enterprise's (CTE) 10-Year Plan, which was finalized in May 2022 and will guide the investment of an estimated \$134 million in zeroemission transit projects over the coming decade. In April 2025, CDOT staff kicked off the 2025 Transit ZEV Roadmap, which will provide an update on the current state of the Colorado transit fleet, highlight the progress made towards the action items in the previous plan, and address emerging challenges and opportunities in transit electrification moving forward. The new Roadmap will also explore the potential for future zero emission transition of CDOT's own Bustang family of services and identify best practices in the electrification of BRT routes across Colorado.

Utility Transportation Electrification Plans

Signed by the Governor in May 2019, <u>SB19-077</u> "Electric Motor Vehicles Public Utility Services" requires Colorado's PUC-regulated electric utilities (Public Service Company of Colorado (Xcel Energy) and Black Hills Colorado Gas, Inc. d/b/a Black Hills Energy (Black Hills Energy or Black Hills)) to facilitate the deployment of charging stations for EVs and support EV adoption in their service territories. Beginning in May 2020 and recurring at least every three years, electric public utilities are required to file an application, or a TEP, with the PUC for a program of regulated activities to support widespread transportation electrification.

In 2024, the PUC approved TEPs for Colorado's two regulated electric utilities, Xcel Energy and Black Hills after having previously approved plans for the 2021-2023 time period. These updated plans cover the utilities' efforts to invest in and promote EV adoption during the 2024-2026 timeframe. For Xcel, the PUC approved a \$264 million three-year budget to support advisory services, EV purchase rebates for Income Qualified customers, rebates for charging infrastructure and wiring, and innovation and demonstration projects. For Black Hills, the PUC approved a \$3 million three-year budget to support customer education, EV purchase rebates for Income Qualified customers, rebates for charging infrastructure and wiring, rebates for e-bikes, electrification efforts for vehicle fleets and multifamily housing, and a behavioral managed charging pilot program.

Importantly, utility customers broadly benefit from the adoption of EVs, especially passenger cars. While availability of public charging is very important, most EV charging occurs when vehicles are plugged in overnight at home. Utilities have to size their infrastructure to serve peak loads, which occur in late afternoon and early evening, so there is significant excess capacity during the night. When EVs charge overnight, they use this excess capacity, allowing fixed costs to be spread over more kilowatt hours of sales, thus exerting downward pressure on electric rates for all customers. An analysis of the Xcel Energy service territory conducted for CEO by the consulting firm MJ Bradley found that under a high EV adoption scenario, annual benefits to ratepayers could exceed \$250 million.¹⁷ Thus, the TEP investments, which support EV adoption, not only contribute to state climate and air quality goals and help individual drivers reduce their costs, but provide broad economic benefits to all ratepayers.

Adoption of Vehicle Emissions Standards

The adoption of vehicle emissions standards is a critical strategy for reducing GHG emissions as well as other pollutants over time. In order to reduce or eliminate GHG emissions from transportation vehicles it is imperative that new vehicle purchases are progressively cleaner. This will help ensure the transition of the existing vehicle inventory away from higher

iv.

¹⁷ Dana Lowell, et al., M.J. Bradley & Associates, <u>Xcel Energy Electric Vehicle Cost-Benefit Analysis:</u> <u>Plug-in Electric Vehicle Cost-Benefit Analysis: Xcel Energy's Service Area in Colorado</u> (Apr. 2019), at

emitting sources which is important given the predicted useful life of new vehicles. CDPHE's APCD has developed and the AQCC has adopted several key regulations to support this goal.

In November 2018, the Colorado AQCC adopted <u>Regulation 20, the Colorado Low Emission</u> <u>Automobile Regulation (CLEAR)</u>. As of automotive model year 2022, all new LD and LD vehicles (up to 14,000 pounds (lbs.) Gross Vehicle Weight Rating (GVWR)) and aftermarket catalytic converters sold in Colorado must meet Low Emission Vehicle (LEV) standards. In August 2019 the AQCC adopted revisions to Regulation 20, CLEAR, which requires vehicle manufacturers to meet minimum ZEV sales requirements for LD vehicles in Colorado beginning with the 2023 model year. These ZEV sales standards required that Colorado sell an increasing proportion of ZEV LD vehicles from model years 2021 through 2025. Since adoption, Colorado has exceeded these sales requirements every year. The requirements are based upon a credit system that generates credits for sales of plug-in hybrid and battery EVs. For model year 2025, these credit requirements translate into a sales requirement of approximately 6% of new vehicle sales; for comparison, over the last year Colorado sales of EVs have exceeded 25%, four times higher than the regulatory floor.



In April 2023 the AQCC adopted three clean trucking rules. These include the Advanced Clean Trucks (ACT) rule, the HD Low Nitrogen Oxides (NOx) rule, and the Large Entity Reporting rule. The ACT Rule requires manufacturers of MD and HD on-road vehicles to sell an increasing percentage of ZEVs from model year 2027 and beyond. ZEV types include electric, hydrogen, and plug-in hybrids. The sales standard applies to trucks offered for sale or lease in Colorado. The ACT regulation does not require MD and HD vehicle fleets, owners, operators, or

dealerships to purchase ZEVs, and does not directly require dealerships to sell certain percentages of ZEVs or near ZEVs. The rule makes more zero-emission options available across the State for entities that choose them. Colorado incorporated the California Air Resource Board's ACTs Rule by reference to create a market-based approach for promoting clean trucks. Truck and engine manufacturers that produce on-road vehicles with over 8,500 lbs. GVWR for sale in Colorado must submit annual sales reports through <u>California Air Resource</u> <u>Board's ACTs reporting system</u>. Reports must be completed no later than 90 days following the end of each model year. The rule allows manufacturers to earn optional early action credits if they choose to submit reports for the model years 2024-2026. Then, the rule requires manufacturers to submit reports starting with model year 2027.

The HD Low Nitrogen Oxides (NOx) Rule requires HD vehicle manufacturers to make cleaner vehicles, improve how they test vehicle engines, and extend engine warranties. NOx is formed whenever fuel is burned, including operating vehicles that run on gas or diesel. NOx can form harmful ground-level ozone when it mixes with other air pollutants in heat and sunlight. Starting in model year 2027, this rule will reduce NOx emissions per new vehicle sold by 90% below current standards. The rule applies to vehicles offered for sale or lease in Colorado with a GVWR of 14,001 lbs. or greater in model year 2027 and subsequent model years. Certain transit buses and emergency vehicles are exempt. The combined effect of the ACT and Low NOx Omnibus rules increase the share of zero emission trucks that manufacturers must sell in the state to between 15-20% of new vehicle sales (depending on the vehicle group type and weight class modifiers), starting in model year 2027.

In addition to the regulations focused on establishing standards, Colorado's Large Entity Reporting Rule went into effect in June 2023. The revision added the Large Entity Reporting regulation to Regulation 20, Part G. Large Entity Reporting requires entities with fleets of 20 or more vehicles with a GVWR greater than 8,500 lbs. to report fleet information to the APCD. The reporting requirement is to assess the suitability of ZEVs in multiple use cases and inform future strategies for the ZEVs market in Colorado. Applicable entities are required to submit their reports by November 30, 2024, and December 31, 2027. For more information on the rules adopted in April 2023 please access the <u>CDPHE's website</u>.

Building upon the original Clean Cars program minimum ZEV sales requirements and LEV standards adopted by Colorado in 2019, the AQCC adopted the <u>CCCs Standard</u> in October 2023 to further reduce GHG emissions and other pollution. The final standard directs vehicle manufacturers to make and sell more EVs starting with model year 2027, and includes various flexibilities for automakers to meet the requirements. Some flexibilities start as early as model year 2024. EVs are defined as ZEVs, including BEV, PHEV, and fuel cell EVs. The standard directs vehicle manufacturers to ensure 82% of new LD vehicles sold in Colorado are electric by model year 2032. As of March 2025, current levels were 26%. This standard will support Colorado's goal of nearly one million EVs on the road in Colorado by 2030. The standard also requires new conventional cars and passenger trucks to produce less air

pollution. CDPHE estimates that implementation of the rules through 2040 will reduce GHG emissions by 109,096,948 metric tons.¹⁸

On May 22, 2025, the U.S. Senate joined the House in adopting three Resolutions, purporting to "disapprove[]" waivers.¹⁹ The Federal Government "singled out" these waivers — and the underlying California regulations — for an unprecedented attack. On June 12, 2025, the Resolutions were signed by President Trump. This action does not affect the standards that Colorado adopted in 2018 and 2019 that cover vehicles through model year 2025, but does create uncertainty about the ability to enforce standards beginning with model year 2027. A coalition of states, including California and Colorado, immediately filed legal action to enjoin this unlawful overreach by the Federal Government and to preserve the longstanding ability of states to adopt rules reducing emissions from mobile sources.

EV Infrastructure Development

A critical need to support the success of EV adoption is the development of charging infrastructure. Colorado has adopted legislation and has been implementing a variety of grant programs to support this effort as described below.

Community Access Enterprise

The business purpose of the <u>Community Access Enterprise</u> (CAE) is to support the widespread adoption of electric motor vehicles in an equitable manner. This is accomplished by making grants to fund the construction of EV charging stations throughout the state, and incentivizing the adoption and use of EVs and electric alternatives to motor vehicles, such as e-bikes. The CAE has a strong focus on making investments in Disproportionately Impacted Communities and to Income Qualified individuals.

Since the CAE began collecting revenue in 2022 it has awarded over \$45 million to projects to support electrified transportation with over 55% of the funding going towards either Income Qualified individuals or Disproportionately Impacted Communities. The largest amounts of funding have supported the CEO's charging station programs: DCFC Plazas, Charge Ahead Colorado and Fleet Zero, and to the vehicle scrappage and replacement program, Vehicle Exchange Colorado (VXC). Other programs that are fully or partially funded through the CAE include: the Community Accelerated Mobility Project (CAMP), EV CO, ReCharge Colorado and EV Home Charge. The CAE maintains a <u>funding dashboard</u> that is updated twice a year that breaks down funding by multiple variables including: fiscal year, program, location and funding source.

¹⁸ CDPHE, <u>GHG Emissions Reduction Progress Report to the Colorado Legislature</u> (December 2023), A-5.14.

¹⁹ H.J. Res. 87, 119th Congress (2025) (enacted); H.J. Res. 88, 119th Congress (2025) (enacted); H.J. Res. 89, 119th Congress (2025) (enacted).

Charging Station Funding Programs

Charge Ahead Colorado provides grant funding for Level 2 and DCFC charging stations throughout Colorado via several competitive application processes each year. Each grant provides up to 80%-90% of a charging station's cost (up to a set maximum per charger type). In 2022, the program opened grant applications in February, June, and October. Charge Ahead grants fund stations at diverse locations, including businesses, multi-family housing units, workplaces, local governments, utilities, and convenience stores. In Fall 2022, CEO revised program incentives to prioritize investments in Disproportionately Impacted Communities, and increased funding and reduced match requirements for Income Qualified multi-family housing projects. CEO is further facilitating access to these grants by offering a rolling, streamlined application process for smaller scale projects at workplaces and multi-family housing developments. In FY23, Charge Ahead awarded funding for over 600 charging stations throughout Colorado. From January through June 2023, Charge Ahead Colorado awarded 237 charging stations. As of May 2025, the program has funded more than 5,000 charging stations statewide.



Photo by Stephen Cardinale

A specific sub-focus of the Charge Ahead Colorado Program is projects that support the electrification of the State's 26 Scenic & Historic Byways. As key drivers of local tourism and recreation in largely rural areas of the state, Byways play an outsized role in making EVs a viable option for Colorado residents and visitors who want to experience the State's natural

beauty and small town charm. Since 2020, CDOT, CEO and the Colorado Tourism Office have worked together with the Scenic Byways Commission and its member communities to develop a definition of EV Friendly Scenic Byways, support grant funding for projects that increase EV readiness, and then officially designate and promote those byways that meet the established standard. As of May 2025, 18 of the State's 26 Scenic & Historic Byways are considered EV Friendly, and projects are in development or under construction on several others. It is an established CDOT goal to provide sufficient EV charging along all 26 Byways by 2030.

In an additional effort to enable statewide travel in EVs, Colorado offers funding specific to DCFC charging through its DCFC Plazas program and DCFC Corridors program. The DCFC Corridors program invested more than \$10 million to install DCFC stations at 33 sites along Colorado's major transportation corridors. These sites have been developed in partnership with ChargePoint and various site hosts, such as local governments, utilities, and private companies. The DCFC Corridors program is now complete as of December 2024.

CEO developed the DCFC Plazas program in partnership with CDOT to increase access to highspeed charging in communities and along highway corridors throughout the state. The DCFC Plazas program is funded through both the NEVI program and the CAE. The U.S. Joint Office of Energy and Transportation approved the State's NEVI implementation plan through FY25. This approval provided Colorado with access to the first several years of NEVI funding in order to build charging stations along the State's 13 federally designated EV corridors: I-25, I-70, I-76, I-270, US 34 (partial), US 36 (partial), US 40 (partial), US 50, US 160 (partial), US 285, US 287 (partial), US 385 (partial), and US 550. In October 2023, the federal government approved Colorado's required annual NEVI Plan update, as well as five additional designated EV corridor segments: I-225, US 24, CO 83, and two previously undesignated portions of US 40. Colorado supplements the NEVI funding with CAE funding to support community-based locations throughout Colorado where projects would not be eligible for NEVI funding. Colorado has offered three rounds of funding through December 2024. This has resulted in the announcement of 650 charging ports and approximately \$55 million in funding awards.

In addition to NEVI formula funding, the FHWA opened competitive funding opportunities in 2023 for the Charging and Fueling Infrastructure (CFI) Program and the Electric Vehicle Charger Reliability & Accessibility Accelerator (EVCRAA) Program. CDOT and CEO have actively pursued additional funding through these programs. For the CFI program, the state proposed an \$8.7 million project to develop charging in the Four Corners region and supported local governments requesting more than \$23.6 million in funding in the 2023 round of funding. While FWHA did not award the State's CFI proposal, Boulder County received \$4.9 million for community EV charging projects and CSU received \$8.9 million to build hydrogen refueling stations at three locations along I-25. In 2024, Colorado re-submitted the original Four Corners application and developed a second \$60 million application to support MD and HD charging, along with supporting local applications from several cities and counties seeking community-based projects. While the state applications were once again unsuccessful, the City of Pueblo received an \$11.5 million award for filling EV charging gaps in their community.

In a separate application to the EVCRAA program, the state sought \$8.3 million for EV charger repair and replacement projects. In January 2023, CDOT was awarded EVCRAA grant funding and subsequently signed the agreements necessary to begin implementing the funded projects across Colorado in August 2024. However, in February 2025 the FHWA paused implementation of the program indefinitely and it is not clear if or when it will be unpaused. Colorado has joined with other states to challenge this unlawful freeze of funding in court.

CDOT has been tracking the percentage of the state highway network that is within 30 miles of DCFC since 2020. As of June 2025, 83% of Colorado's 9,037 miles of highways (7,507 miles), have DCFC within 30 miles (Figure 1).



Figure 1: Locations of Publicly Accessible EV Fast-Charging Stations

Colorado has 392 stations as of June 2025. Data Source: U.S. DOE.

In November 2024, the CEO launched the EV Home Charge program which provides grants to utilities to aid customers in upgrading their home charging capabilities. This program supports the adoption of EVs by helping fund electric panel and wiring upgrades for Level 2 EV charging at single-family homes, duplexes, and townhomes. Access to at-home Level 2 charging is a barrier to EV adoption in Colorado, especially in older homes that may have insufficient panel space or require extensive home wiring to support charging speeds faster than a typical household outlet. This program addresses this barrier by helping reduce the cost of such upgrades. Colorado electric co-ops and municipal utilities are eligible to apply for EV Home Charge funding to offer rebates to their customers for both panel upgrades and home wiring to support EV charging. The initial request for applications (RFA) received four applications from four different regions of Colorado. The pilot program held its first evaluation of

applications in Fall of 2024. After the evaluation, two awards were offered to United Power and Tri-State Generation and Transmission Association, Inc., in February of 2025.

Additional Supportive State Legislation

In 2022, Governor Polis signed <u>HB22-1362</u>, "Building GHG Emissions." One aspect of this bill was a requirement for the state Energy Code Board to develop EV ready building code provisions for residential and commercial properties, and a requirement that local governments must incorporate these EV ready elements during any future updates to their local building codes.

In 2023, the Governor signed <u>HB23-1233</u>, "EV Charging and Parking Requirements." One element of this bill placed the EV ready requirements for multifamily housing into the state electrical code, which has the effect of making this a universal requirement across the state.

In May of 2023 Governor Polis signed <u>SB23-236</u> "EV Service Equipment Fund." The bill creates the EV Service Equipment Cash Fund for use by the Department of Military and Veterans Affairs (DMVA). The DMVA is authorized to spend money from the fund to defray the costs associated with operating EV charging stations. Money received by the DMVA from charges imposed on use of EV charging stations at facilities operated by the department must be credited to the fund, as well as any gifts, grants, donations, or other appropriations or transfers to the fund by the General Assembly. Currently, the Colorado National Guard, under the DMVA, is allowed to pull down federal funding to install charging stations throughout the state. This is part of the Army's effort to make all non-tactical vehicles electric by 2035. Previously, these stations could only be used by the DMVA fleet. The creation and operation of this new fund will allow DMVA to charge the federal government, military, and civilians for using these EV charging stations to recoup costs. This effectively opens these stations up to the public. Thus, public charging stations are now available on military installations and DMVA facilities around the state that were built using federal dollars.²⁰

In May of 2024 Governor Polis signed <u>HB24-1173</u> "EV Charging System Permits" concerning streamlining the process for permitting electric motor vehicle charging systems. This bill enables Colorado to take a step forward toward improving EV charging station permitting timelines and increasing the rate at which new charging stations are installed in Colorado. This bill directs CEO to develop a model code for EV charging station permitting based on national best practices and from feedback in a stakeholder process. The law requires municipalities with 10,000 or more people and counties with 20,000 or more people as of the

²⁰ CEO, <u>2023 Legislative Session Snapshot</u> (June 2023), at 5.

2020 Federal Census ("subject jurisdictions") to take at least one of the following compliance actions by December 31, 2025:

- Adopt the permitting processes and standards from the EV Charging Model Land Use Code;
- Adopt the permitting processes and standards prescribed by HB24-1173; and
- Adopt an ordinance or resolution stating that the local government does not wish to change its existing land use codes and opts out of revising its codes.

CEO published the EV Charging Model Land Use Code on March 31, 2025, consistent with the deadline from HB24-1173. CEO revised the model code further in April 2025 after accepting additional stakeholder feedback. The office then published the final <u>EV Charging Model</u> <u>Land Use Code</u> in May 2025. CEO will support adoption of the Model Code by providing an on-call land use consultant to help local governments adapt the Model Code into their existing land use codes, and by providing staff training to help local government planning staff interpret and apply the permitting standards and processes of the Model Code to proposed EV charging projects.

Alternatively Powered Aircraft Infrastructure

Under the direction of the Colorado Aeronautical Board (CAB), CDOT's Division of Aeronautics' mission is to support airports and aviation as part of Colorado's multi-modal transportation system, while also promoting aviation education and safety. The CAB and Division are vested in leveraging this leadership to make Colorado's aviation system as efficient, accessible, and environmentally responsible as possible. Though states do not have the legal authority to regulate or limit aircraft emissions, airport operations, aircraft fuels, and flight paths (as aviation and interstate commerce are federally preempted), the CAB and Division of Aeronautics still help support the state in meeting GHG reduction targets by partnering with the aviation industry and others to ensure that aviation infrastructure, funding mechanisms, and policies take full advantage of emerging information and technologies.

In January 2023, the CAB approved \$400,000 of funding for an alternatively powered aircraft airport infrastructure study. This study will report on emerging new aviation propulsive technologies and aircraft, as well as the benefits these aircraft will provide for cleaner, more efficient and more accessible aviation mobility statewide. The results will also show how the Division can support our system of 66 publicly owned airports to be ready for these aircraft when they enter service in the next 10 years.



In February 2023, the Division contracted with the National Renewable Energy Laboratory (NREL) to conduct the alternatively powered aircraft airport infrastructure study, which is now underway. Specifically, this effort will:

- Review and summarize existing research and case studies on alternatively powered aircraft (fixed wing, non-Electric Vertical Take Off and Landing (eVTOL) aircraft) and related airport infrastructure needs.
- Quantify the current state and development timeline of alternatively powered regional air mobility (RAM) and general aviation (GA) training aircraft.
- Analyze Colorado's intrastate travel patterns and demand, and identify Colorado airports likely to support RAM aircraft.
- Analyze and identify Colorado airports likely to support battery-electric GA training aircraft.
- Identify baseline airport infrastructure needs to support alternatively powered aircraft technology at identified airports serving both RAM and GA flight training.
- For identified airports, develop a high-level inventory of existing electrical utility service and capacity, and compare to baseline needs. Compare existing conditions and develop high level per-airport costs to develop projected necessary infrastructure needs and potential funding sources.
- Identify at a high level the federal and state policies and funding mechanisms that will need to be evaluated to facilitate the development of this infrastructure.

The study is being coordinated with a study committee that consists of representatives from industry, utilities, aircraft manufacturers, airports and other state agencies. The final study is expected to be completed this year. The Division of Aeronautics' will evaluate opportunities to meet identified needs proactively so that when alternative fuel aircraft are ready to fly, they will be able to do so with the necessary infrastructure, policies, and funding sources in place.

Vehicle Exchange Colorado Program

Funded through the CAE, the VXC program provides rebates to Income Qualified Coloradans for recycling and replacing their old or high-emitting vehicles with EVs. The VXC rebate partially covers the upfront cost of an EV, including both BEV and PHEV, at the time of purchase or lease from an authorized automobile dealer. This program launched on August 31, 2023, as part of the CAE's Ten-Year Plan. Eligible Coloradans can receive \$6,000 for a new EV purchase or lease; or \$4,000 for a used EV purchase or lease. As of late April 2025, VXC participants have redeemed 2,214 rebates. Income Qualified customers within Xcel Energy service territory were also able to receive utility rebates for buying EVs, which could be stacked with the VXC funding; these rebates were provided to over 1,100 customers.

Clean Medium/Heavy-Duty Trucks and Buses

MD and HD vehicles are the second-largest sources of GHG emissions in the transportation sector in Colorado, contributing to 22% of on-road GHG emissions, despite comprising less than 10% of Colorado vehicles. They are also a significant contributor to ozone precursor emissions like NO_x as well as PM that have serious impacts on air quality and human health. MD/HD vehicles are estimated to contribute about 30% of on-road NOx emissions and 40% of on-road PM emissions.²¹

Clean Truck Strategy

The Colorado Clean Truck Strategy development began in 2020 with Governor Polis' signing of a multi-state Memorandum of Understanding (MOU) to collaboratively advance the market for zero-emission trucks and buses. This was followed by a series of public stakeholder meetings to identify challenges and opportunities to reduce emissions in the MD and HD transportation sector. In 2021, CEO, CDPHE, and CDOT collaborated on a <u>MD/HD Vehicle Study</u> to analyze the costs and benefits associated with several regulatory and investment scenarios related to this market. Modeling from this study indicates that, if the state of Colorado pursues strategies to support an accelerated transition to MD/HD ZEVs, it could reduce the State's MD/HD GHG emissions 45-59%, NOx emissions 54-93%, and PM emissions 53-68% annually by 2050 from a baseline scenario. The modeling also projects significant health benefits from these reductions, such as fewer asthma cases, hospital visits, and premature mortality, particularly in low-income communities and communities of color.

²¹ CEO, et al., <u>Colorado Clean Truck Strategy</u>.

Following the release of the MD/HD Vehicle Study, state agencies held three public meetings and convened a stakeholder working group to gather input on the development of the Clean Truck Strategy. A draft strategy was released in March 2022, which was then refined based on feedback from additional written comments and public meetings. The final <u>Clean Truck</u> <u>Strategy</u> was published in May 2022. It includes goals and objectives, 35 prioritized strategies for agencies to pursue in the near and medium term, and recommendations for leveraging the nearly \$1B in potential funding for clean trucks and buses coming from SB21-260, federal infrastructure funds, Governor's budget, and other sources. It also included a recommended rulemaking for the ACT and Low NOx Omnibus rules at the AQCC, which went into effect in June 2023, as discussed later in this document. Implementation of most or all of the prioritized strategies is now underway, with several already completed.

Medium- and Heavy-Duty Charging Infrastructure Study

In 2023, the CEO published a <u>MD/HD Charging Infrastructure Study</u>, one of the near-term actions detailed in the <u>Clean Truck Strategy</u>. The study:

- provided an up-to-date overview of the MD/HD electric truck and charging infrastructure market;
- assessed statewide MD/HD charging needs to achieve the Clean Truck Strategy goal of 35,000 zero-emission MD/HD trucks and buses on-the-road by 2030; and
- proposed an initial incentive program design strategy for depot, charging-as-a-service and public truck charging that leverages both state and federal funding.

The CAE used the results of the study to inform the design of the standard and rolling funding lanes of its Fleet Zero-Emission Resource Opportunity (Fleet-ZERO) grant program, as well as the development of a public Colorado <u>MD/HD Charging Corridors Geographic Information</u> <u>System (GIS) Map</u>. This map visualizes the breakdown of MD/HD vehicle registrations by Colorado county, the expected distribution of MD/HD charging ports per county by 2030 to achieve Clean Truck Strategy objectives, and an initial framework for a MD/HD EV charging network along the State's freight corridors.

CEO is now expanding on the initial study and GIS map results by conducting a MD/HD Charging Hub Network Siting Analysis that will develop a roadmap to identify prioritized locations for a statewide MD/HD EV charging hub network. The analysis will also play a role in developing the incentive design and implementation strategy for the launch of a new MD/HD corridor funding lane of the Fleet-ZERO program. This new funding lane will support the buildout of high-power charging hubs for MD/HD EV charging along Colorado's major freight routes.

Fleet Zero-Emission Resource Opportunity (Fleet-ZERO) Program

With funding from the state CAE and the federal Congestion Mitigation and Air Quality Improvement Program (CMAQ), the Fleet-ZERO program offers grants for EV charging infrastructure to accelerate the transition of public, private, and non-profit fleets and MD and HD vehicles to EVs. Fleet-ZERO supports private depot charging, public and semi-public fleet charging, and providers offering EV charging-as-a-service to fleets. The program takes a similar approach as other CEO EV charging infrastructure programs, offering tiered incentives based on charger type and power level. Between four standard application rounds since Fleet-ZERO initially launched in Spring 2023 and a year-round rolling application, CEO has awarded over 60 applicants a total of about \$8 million in grants to support over 700 fleet EV charging ports at over 120 locations throughout the state. The year-round rolling application, which is only available for equity-qualifying entities requesting funding for smaller scale fleet EV charging projects, included 19 awarded applicants for 32 locations and over 100 fleet EV charging ports of the total projects awarded to date. Fleet-ZERO offers standard application rounds twice per calendar year in the spring and fall with the Spring 2025 round open from May 12 to July 11, 2025. The most recent fall standard application round ran from September 30 through November 15, 2024.

Clean Transit Enterprise

The <u>Clean Transit Enterprise</u> is an entity created within the CDOT that is currently charged with implementing two pieces of legislation. The Enterprise was initially created by SB21-260, which allows the enterprise to impose a Clean Transit Retail Delivery Fee to fund support for public transit electrification planning efforts, facility upgrades, fleet motor vehicle replacement, as well as construction and development of electric motor vehicle CFI. The second piece of legislation, SB24-230, concerns transit expansion and is discussed in the transit section later in the report.

The CTE public transit electrification program has now been operating for over three years and has awarded a total of approximately \$15.5 million in grants to entities around the state to support transition to zero-emission transit services. This includes eight Zero-Emission Transition Planning grant awards (totalling just over \$500,000) and 11 Zero Emission Transit Capital Grant awards - one facility project, one infrastructure project, and nine vehicle projects which will result in 28 zero emission transit vehicle purchases (totalling \$15 million). The CTE anticipates conducting another round of Transit Zero-Emission Grants in Fall 2025.

Electric School Buses

In June 2022 Governor Polis signed <u>SB22-193</u> "Air Quality Improvement Investments" which secured the Governor's 2022 clean air and climate change budget investment priorities, likely the largest in state history in these areas. This included \$65 million to start a new school bus electrification grant program, which aims to transition Colorado's diesel school bus fleets to electric buses. Grants are prioritized for vehicles operating in Disproportionately Impacted Communities, ozone nonattainment areas, and schools with high proportions of students receiving free or reduced school meals. The program provides flexibility for applying districts to pay for charging infrastructure and buses, as well as covering administrative costs for applying to both the state and federal electric school bus programs.

As the agency responsible for implementation of the school bus initiative, in 2022 CDPHE worked with CEO and the Colorado Department of Education (CDE) to develop a RFA for the SB22-193 Electric School Bus Investments Grant Program. In addition to supporting the procurement of electric school buses and other EVs that transport children, grants can also cover charging infrastructure, project start-up costs for schools, technical assistance, and high-voltage training for technicians. CDPHE and CDE convened multiple outreach opportunities with stakeholders, including two webinars attended by over 80 interested parties. Two additional webinars and outreach to superintendents occurred in June 2023.

CDPHE, CEO and the Governor's Office have also made a concerted effort to ensure that local school districts are aware of the complementary IIJA-funded EPA Clean School Bus funding opportunity. In early 2024, the Governor's Office of Economic Recovery offered free grant writing and technical assistance to help eligible school districts submit applications. With three rounds of EPA awards and one round of Colorado Electric School Bus program awards, 14 school districts have been awarded approximately \$18.9 million in Colorado Electric School Bus funding supported the procurement of 64 electric school buses. Of the \$18.9 million Colorado funded, \$830K is allocated to support the installation of 36 charging stations, \$67K to cover start-up costs and high voltage technician training and \$5K for vehicle scrappage.

As of November 2024, the Colorado Electric School Bus Grant Program has been discontinued due to state budget constraints and the anticipated absence of federal dollars for the same purpose. Interested organizations can still apply for federal funding through the federal <u>Clean</u> <u>School Bus Program</u>.

EV Tax Credits

To ensure greater access to and affordability of EVs for all Coloradans in May 2023 Governor Polis signed <u>HB23-1272</u> "Tax Policy That Advances Decarbonization" that expanded existing state tax credits for EV purchases and leases. EVs with a manufacturer's suggested retail price (MSRP) under \$80,000 qualify for a \$5,000 tax credit as of July 1, 2023. After January 2025, this tax credit amount decreased to \$3,500. EVs with an MSRP less than \$35,000 qualify for an additional \$2,500 tax credit. Currently, that means new EVs purchased in Colorado with an MSRP under \$35,000 will receive \$6,000 back on their taxes from the state.

Coloradans are now allowed to "assign" this tax credit to a car dealer or financing entity, which allows residents to receive the tax credit as a discount at the point-of-sale, rather than after filing their taxes which can sometimes occur more than a year after purchase. Residents may also combine the state tax credit with certain utility rebates and local or federal incentives, further reducing the upfront cost of an EV in Colorado. The tax credit is also fully refundable, meaning that a taxpayer receives the full credit amount even if this exceeds their tax liability.

The tax credit may also be claimed by political subdivisions within Colorado such as local governments and school districts as well as tax-exempt organizations that purchase or lease a qualifying vehicle.

In addition to expanded tax credits for LDEVs, HB23-1272 also increased and extended tax credits for the purchase of LD, LD, and HD electric trucks. Starting January 1, 2024, LD electric trucks became eligible for a \$5,000 tax credit and MD and HD electric trucks are eligible for a \$12,000 tax credit. Tax credit amounts will decrease over time starting in January 2025 for LD trucks and January 2026 for MD and HD trucks. HB23-1272 also expanded a discount on the specific ownership tax to include new EV and PHEV fleet vehicle purchases, which was a recommendation from the Clean Truck Strategy. The taxable value is discounted to 50% of actual purchase price for eligible vehicles that weigh more than 16,000 lbs. and 50% of MSRP for eligible vehicles that weigh less than or equal to 16,000 lbs. Like the LD EV tax credits, purchasers may assign this tax credit to a dealer or financing entity for a point-of-sale discount on the vehicle. This tax incentive, combined with funding opportunities for charging equipment and infrastructure to support MD and HD EVs, will make it more affordable for Colorado fleet owners and operators to switch to EVs, and is an essential step in implementing the State's Clean Truck Strategy.

Additionally, the Office of Sustainability has applied for over \$1.2 million in revenue from federal direct pay tax credits as a result of the IRA. These were predominantly EV tax credits. Direct pay is a new mechanism that allows nonprofit entities, including state governments, to receive cash payments for federal tax credits across a wide variety of technologies including clean vehicles and clean energy. The Office of Sustainability will continue to work to maximize Colorado's utilization of these and other federal funds, further reducing operating costs and state government expenditures on critical projects such as EV implementation.

Fleet Electrification

Colorado State Fleet

As part of the Governor's focus on greening the government and leading by example, state agencies have significantly ramped up the installation of EV charging infrastructure and the replacement of fleet vehicles with EVs. The Governor's Greening Government <u>Executive Order (EO) D 2025 003</u> requires that agencies "Ensure that EVs (BEVs and PHEVs) are the default vehicle type for all [LD] vehicles for future vehicle purchases." In 2021, SB21-230 allocated \$5 million for charging infrastructure for state agencies. As of April 2025, the funding has supported the installation of 332 charging ports across 91 state facilities. A portion of the funding has also supported the implementation of the State's EV Take Home Policy, which allows agencies to assign state-owned EVs to employees to take home at night for charging, and to reimburse employees for the electricity used to charge them. As of April 2025, over 75 new employees are charging state-owned EVs at home.
The <u>Statewide Sustainability Plan</u> outlines how Colorado's Office of Sustainability will develop an EV charging plan and training for operational and end user use of EVs to further agency adoption of EVs. This plan will include a survey to investigate the barriers of EV utilization in state agencies.

Colorado's Department of Personnel and Administration's (DPA) Wildly Important Goal (WIG) is to increase the number of EVs in the state fleet to 1,250 by 2027, which accounts for approximately 50% of EV-eligible vehicles. As of March 2025, there were 729 EVs in the state fleet. The <u>Governor's Dashboard</u> tracks EV acquisitions over time, as shown in Figure 2 below.



Figure 2 - Number of EVs in Colorado's State Fleet, July 2023 to March 2025

From the Department of Personnel & Administration WIGs webpage.

Clean Fleet Enterprise

The <u>Clean Fleet Enterprise</u> (CFE) was created within the CDPHE for the business purpose of incentivizing and supporting the use of electric motor vehicles and other clean fleet technologies by owners and operators of motor vehicle fleets utilizing funding from the clean fleet retail delivery fee and a fee assessed to TNC rides.

The CFE Clean Fleet Vehicle & Technology Grant Program initiated its first round of applications in March 2023. This program primarily offers grant funding to encourage businesses and governmental entities with fleets to adopt new electric motor vehicles and compressed natural gas (CNG) motor vehicles fueled by recovered methane (CH₄). Vehicle conversions that repower internal combustion engines to zero emissions technology are also eligible for funding.

In August 2023, the CFE board reviewed grant applications and selected 16 awardees, totaling approximately \$14 million. On April 22, 2024, the Board launched the second round of its

Clean Fleet Vehicle & Technology portfolio grants, with an application deadline of June 21, 2024. The Board received 38 applications from various entities across Colorado, including forprofit and non-profit companies, universities, and local governments, with requests for funding to supplement the costs of 188 vehicles. Twenty-seven applications advanced to the review stage with requests for a total of \$26.5 million in funding for 135 vehicles. The majority of requested funding was for BEVs with four applications requesting funding for renewable natural gas-powered vehicles. In September 2024, the Board approved funding for all eligible round two applications.

Since the launch of the Clean Fleet Vehicle and Technology grant portfolio, the Board has approved \$34.6 million in awards for a total of 181 vehicles, taking into account applications that were withdrawn prior to contract execution. The Board plans to introduce a third round of funding in Summer 2025, and it is anticipated that applications will be reviewed for approval by the board in the Fall.

Additionally, in February 2024, the Board launched the first round of its TNC Grant Portfolio, with applications due May 2024. TNC are companies that use digital platforms or mobile apps to connect passengers with drivers who use their personal vehicles to provide on-demand transportation services, as defined by the PUC, such as Lyft, Uber, HopSkipDrive, River North, or Drivers Cooperative - Colorado. The purpose of the grant portfolio is to increase the number of EVs used in TNC fleets and electrified VMT by drivers. The Clean Fleet TNC grant program is one of the first in the nation.

Uber and Lyft each submitted applications requesting a total of \$3.78 million; however, only \$3.1 million was available in the Board's budget. In August 2024, the Board approved awards to Lyft and Uber totalling \$3.1 million to assist drivers in the purchase of ZEVs.

Low Carbon Fuels

Clean Hydrogen

In October 2021, Colorado published a Low Carbon Hydrogen Roadmap to evaluate the potential role hydrogen could play in achieving Colorado's climate goals. This roadmap identifies opportunities, barriers and recommended actions for the deployment of low-carbon hydrogen in the state of Colorado over the next fifteen years. In Colorado, the roadmap highlights the most promising short-term applications for hydrogen consumption in the MD and HD vehicle sector, where some use cases are already cost-effective over alternatives such as BEVs, and ready for adoption assuming a sufficient refueling station network and adequate availability of vehicle makes and models.

In May 2023 Governor Polis signed <u>HB23-1281</u> "Advance The Use Of Clean Hydrogen" which supports the continued development of clean hydrogen in Colorado by creating tax credits for the use of clean hydrogen in industry, HD trucking, and aviation, and creates a regulatory pathway for consideration of hydrogen projects proposed by investor-owned utilities.

In February 2022, the states of Colorado, New Mexico, Utah, and Wyoming signed a MOU to coordinate, develop, and manage a regional clean hydrogen hub. Named the <u>Western Inter-States Hydrogen Hub (WISHH)</u>, this consortium competed for a portion of the \$8B allocated in the 2021 IIJA to develop four or more regional hydrogen hubs. The four-state coalition submitted their full proposal before the April 7, 2023 deadline. However, they were not one of the hubs selected to move forward by the US Department of Energy (DOE).

For Colorado, the initial concept focused on the use of green hydrogen produced from renewable energy in Colorado, with some imported clean hydrogen from neighboring states, to reduce emissions from the natural gas system and power plants. These first off-takers would help scale the market for green and clean hydrogen in the region, and as costs decline, there will be significant opportunities to utilize hydrogen for hard-to-decarbonize end-uses, including for manufacturing and industry, HD trucks, transit buses, rail transit, and aviation. The passage of HB23-1281 supported this work by creating tax credits for the use of clean hydrogen in industry, HD trucking, and aviation, and created a regulatory pathway for consideration of hydrogen projects proposed by investor-owned utilities.²² Despite not being selected, Colorado continues to pursue opportunities to develop a clean hydrogen market for hard to decarbonize sectors in the state.

Alternative Aircraft Fuels

Globally, the aviation industry is responsible for 2.5% of all CO₂ emissions. However, forecasted increases in aviation activity worldwide and demand for travel could cause that share to increase significantly absent action to address emissions. Recognizing aviation's forecasted growth, the aviation industry is taking steps towards reducing its impact globally. These actions include continued refinements to aircraft and power plant design; extensive progress on new propulsive technologies, including the development of sustainable aviation fuels (SAF; SAF is jet fuel manufactured from renewable biomass waste or synthetic processes); and new battery-electric, hybrid, and hydrogen fuel cell-powered aircraft, all of which have the potential to facilitate the aviation sector's growth while moving towards the industry's broadly stated goal of being carbon neutral by 2050.

Notably, as of July 2025, SAF is available at six of Colorado's 57 public use airports where fuel is sold: Telluride Regional Airport, Aspen/Pitkin County Airport, Rifle/Garfield County Airport, Yampa Valley Regional Airport, Montrose Regional Airport and Eagle County Regional Airport. As SAF demand and production increases and availability improves, the Aeronautics Division will strategize and collaborate with industry and the Governor's office on how to encourage SAF use at more Colorado airports. However, it is also expected that new battery-electric, hybrid, and hydrogen fuel cell aircraft power sources will eventually provide new opportunities to expand mobility across Colorado with significantly reduced environmental impacts.

²² CEO, et al., <u>Biannual GHG Emissions Reduction Implementation Report</u> (June 2023).

Education and Workforce Development

EV CO: Electric Vehicle Education

In November 2022, CEO launched <u>EV CO</u> in partnership with CDOT. EV CO is a statewide EV education campaign to raise general awareness about EVs for all Coloradans. Specifically, it highlights the financial and environmental benefits of EVs while showcasing how an EV can fit into a Coloradan's everyday routine. A committee of approximately 20 representatives from utilities, non-profits, private industry, local governments and other organizations advises EV CO's development. The campaign features a toolkit of EV resources to assist prospective EV buyers in understanding utility, state, and federal rebates and incentives, along with information comparing various EV models.

The EV CO website highlights Colorado EV news and stories, and provides detailed answers to common questions about purchase incentives and long-term savings, at-home and public charging, EV performance, and environmental benefits. The site also includes links to partner resources that connect Coloradans to EV shopper tools and dealerships. The campaign is active on various social media platforms with market-tested messaging. Since its launch, the EV CO website has had 600,000 page views by more than 300,000 unique individuals and over 9.5 million paid media impressions.

Since April 2023, EV CO has launched quarterly "tentpole activations" to engage and educate Coloradans on EVs through various media platforms such as TV, radio and social media. Campaigns have included interviews and videos with EV drivers to share real world experience with EV ownership, ads on TV, radio and social media highlighting the value of the EV tax credits and the accessibility of charging stations, partnerships with social media influencers to highlight the ease of traveling across Colorado in an EV and how EVs can fit into a skiing and snowboarding lifestyle, and interviews with ReCharge Colorado coaches to answer common questions about EVs.

ZEV Workforce Development Grants

In an effort to create new, high-quality jobs to maintain and repair EVs and EV infrastructure, CDOT developed the ZEV Workforce Development Grant. The purpose of the grant is to develop the skills and talent necessary to meet the changing demands of an electrified transportation sector by funding innovative workforce projects across the state. The first round of the ZEV Workforce Development grants were awarded in February 2023, providing \$750,332 to eight projects around Colorado. CDOT supported grantees in the contracting and implementation of the initial phases of the program. The second round of ZEV Workforce Development grants were awarded in \$701,107 to ten projects across Colorado.

Additionally, as part of its Ten-Year Plan, the CFE is developing a Request for Proposals (RFP) aimed at supporting the growth of a clean transportation workforce. This initiative will fund training and development programs to help advance the adoption of electric motor vehicles

across fleet operations. The RFP is expected to be released in Fall 2025. Eligible applicants may include community colleges, workforce development organizations, private sector training providers, and other entities that meet the RFP's qualifications.

Local Government Electric Vehicle Readiness Planning Grants

The <u>CAE</u>, in partnership with CEO, has provided funding to local, county, and Tribal governments and their regional partners to develop EV readiness plans. These plans allow communities to establish a shared vision for EV readiness, identify key partnerships and actionable strategies needed to achieve the vision, and prepare for and encourage community adoption of EVs.

The state awarded a total of seven grants during the lifetime of this program and expects to finish the program in 2025. Grants went to: Routt County; the Town of Mount Crested Butte for a joint plan with the Town of Crested Butte; Garfield Clean Energy to develop a regional plan for Garfield County; San Miguel County; Chaffee County; City of Fort Collins; and City of Pueblo.

Reducing VMT and Providing More Travel Choice

The efforts described above are leading the way for Colorado to reduce GHG emissions and other air pollution from vehicles. Through development of plans, establishment of funding, creation of programs and subsequent implementation, Colorado has made significant near term progress laying the groundwork to reduce vehicle emissions over time. Additionally, the adoption of supportive legislation and vehicle emissions standards has been key in making progress.

Colorado's statewide climate and clean air goals for transportation cannot be achieved through changes in fuel technology alone. The transition of Colorado's passenger and commercial vehicle fleets to less polluting fuels will take decades, underscoring the importance of pursuing strategies now which provide Coloradans with more travel options outside of single occupancy vehicles and reduce the need to drive. Strategies that increase travel choices and reduce VMT are associated with enormous co-benefits beyond their reduction in GHG emissions, including increased safety outcomes, decreased congestion, improved air quality, community cohesion, reduced spending on fuel and on vehicles, downtown economic revitalization and more.

There are many challenges to increasing travel choices and reducing VMT, including providing more multimodal infrastructure, increasing the use of existing public transit facilities, and managing future growth through land use development patterns, especially by encouraging more housing to be built in existing cities near jobs and other daily travel destinations. The projects, regulations, and funding streams described in this section all seek to address one or more of these key overarching challenges to reducing single-occupancy VMT.

Colorado's Greenhouse Gas Pollution Reduction Standard

In December 2021, Colorado's TC adopted the GHG Transportation Planning Standard²³ with the goal of improving air quality, reducing smog, and providing more sustainable options for travelers across Colorado. The rule focuses on the connection between public sector funded transportation projects and vehicle travel; namely that the infrastructure built by agencies, combined with the emissions of vehicles themselves, influences driving patterns and commensurate GHG pollution. The rule governs the role that regional and state governments play in affecting travel through decisions about where and how to build infrastructure.

The rule requires CDOT and the state's five MPOs to quantify the total GHG emissions expected from their updated transportation plans in 2025, 2030, 2040, and 2050 and show reductions in GHGs over time. The transportation plans must meet set GHG reduction amounts in the compliance years of 2025, 2030, 2040 and 2050 (Table 1). These reduction levels are achieved relative to the baseline GHG emissions of the MPO's RTP or CDOT 10 Year Plan adopted as of January 2022. Agencies must use sophisticated travel models, alongside EPA's Motor Vehicle Emission Simulator (MOVES) model, to make this determination, with each emission reduction target differing for each agency and metro region, as shown in Table 1.



²³ <u>2 CCR 601-22</u>.



Figure 3 - MPO boundaries of Colorado

Table 1 - GHG Transportation Planning Standard Reduction
Levels in million metric tons (MMT) of CO_2e

Regional Areas	2025 Reduction Level (MMT)	2030 Reduction Level (MMT)	2040 Reduction Level (MMT)	2050 Reduction Level (MMT)	
DRCOG	DRCOG 0.27		0.63	0.37	
NFRMPO 0.04		0.12	0.11	0.07	
PPACG	N/A	0.15	0.12	0.07	
GVMPO N/A		0.02	0.02	0.01	
PACOG N/A		0.03	0.02	0.01	
CDOT/Non-MPO 0.12		0.36	0.30	0.17	
Total	0.43	1.5	1.2	0.7	

In addition to adoption of the standard, in May 2022 the TC approved Policy Directive 1610 - GHG Mitigation Measures, which quantifies GHG emission reduction factors for almost 50 types of projects, including bike/ped, transit, land use, and TDM. These strategies are a voluntary, alternative compliance method that can be used to help reach the Table 1 emissions reductions targets. As per the requirements of the GHG Transportation Planning Standard, agencies will model the travel impacts of their transportation plans using travel demand models, with a subsequent GHG analysis of these plans through EPA's MOVES. If agencies do not meet their individual reduction levels as required by the Planning Standard, they can change the mix of projects in their transportation plans and/or use GHG mitigation measures. GHG mitigation measures mostly consist of projects and strategies whose GHG and travel benefits cannot be accurately or easily captured and quantified in travel demand models.

Since the adoption of the GHG Transportation Planning Standard and Policy Directive 1610, CDOT, DRCOG, NFRMPO, GVMPO, and PPACG have submitted GHG Transportation Reports showing compliance with the GHG reduction levels in Table 1. PACOG is expected to analyze their upcoming 2050 RTP for compliance and bring forth their first GHG Transportation Report to the TC for acceptance by the end of 2025 or early 2026.

As a result of the GHG Transportation Planning Standard, DRCOG and CDOT worked to modify CDOT-directed funds and DRCOG-directed funds to focus on safety, maintenance, transit, operations, and other multimodal priorities along C-470 and I-25 through central Denver, while canceling planned lane expansions for these corridors. The DRCOG plan further shifted their funding priorities, with a plan to spend an additional \$500 million by 2030, \$200 million more by 2040, and another \$200 million more by 2050 on multimodal transit in their 2050 RTP. DRCOG also modified the scope of several roadway projects to remove "six laning" components in favor of more multimodal, safety, and complete street investments. DRCOG went from having one BRT project before 2030 in their plan to five BRT projects. The GHG Transportation Planning Standard also spurred the expansion of CDOT's Bustang service on the I-25 corridor by 100% on weekdays and 200% on weekends and the expansion of service on the I-70 corridor by 250%. NFRMPO shifted \$147 million to expand transit service, seeking to boost ridership 17% by 2030. PPACG designated an additional \$132 million to bicycle, pedestrian, and other multimodal transportation projects, with 69 fewer centerline miles of new roadway construction proposed in the 2050 RTP as compared to their 2045 RTP. GVMPO increased focus on the intersection of denser, more-compact land-use, multimodal transportation, improved transit service, and protecting vulnerable road users.

Passenger Rail Development

From 2020 to 2050, the Colorado State Demography Office (SDO) estimates an additional \$1.46 million people are expected to live and commute along the Front Range. Existing transportation systems are at capacity and are not positioned to keep pace with this growth. Inter-city passenger rail offers a safe and reliable transportation option without adding to highway congestion or increasing GHG emissions.



Colorado Governor Jared Polis speaks at Denver Union Station prior to a March 7, 2024 inspection train trip over part of the proposed Front Range Passenger Rail (FRPR) route.

FRPR, is a passenger train service that will connect Front Range Coloradans and visitors to opportunities, adventure, and each other. Initially offering service from Fort Collins through Denver and south to Pueblo, FRPR inter-city train service has the long-term vision of connecting Colorado to New Mexico and Wyoming. FRPR will use existing tracks shared with freight railroads to minimize costs and accelerate the service start date. With two Consolidated Rail Infrastructure and Safety Improvements (CRISI) grants from the Federal Railroad Administration and the establishment of the FRPR District in late 2021, efforts in 2022 and 2023 focused on evaluating routes, stations, service, infrastructure, operations, costs, and financing.

Following the 2024 legislative session, Governor Polis signed <u>SB24-184</u> "Support Surface Transportation Infrastructure Development" which creates a dedicated funding source for rail and transit through the Colorado Transportation Investment Office (CTIO) by imposing a fee on rental cars so that out-of-state visitors who contribute to the wear, tear, and congestion on Colorado's roads help pay for transportation. It is expected to generate an additional \$50 million per year for rail transit. The law also encourages regional coordination between the Regional Transportation District (RTD), FRPR District, and CDOT to explore opportunities in establishing train service from Denver to Fort Collins. In addition, it directs CTIO to develop a multimodal strategic capital plan that aligns with CDOT's 10-Year Plan and statewide GHG pollution reduction goals. It also authorizes RTD to extend operations of the Northwest Rail Fixed Guideway Corridor, including an extension of the corridor to Fort Collins.

In October 2023, the TC approved \$5 million to create a service development plan for <u>Mountain Rail</u> passenger service, as well as study statewide transit connectivity. Mountain Rail was then identified in the 2024 update to the <u>State Rail Plan</u>, starting with the corridor from Denver through Winter Park, Steamboat Springs and on to Craig. Initial work on a service development plan for Mountain Rail and a statewide transit connectivity study is underway, which includes organizing stakeholder coalitions to inform corridor development. During the development of the Service Development Plan, the Moffat Tunnel lease was renewed for a 25year period and included the signing of an Access Agreement with Union Pacific to allow up to three additional round trips to run through the Moffat Tunnel for passenger train service, including the introduction of the first round trip between Granby and Denver by the end of 2026.

Related to this effort, the Mountain Rail team worked with Amtrak and Winter Park Resort to expand the Winter Park Express train service from 40 to 66 trips, increase from three to five days a week, added Fraser/Winter Park as a station stop, and reduced fare costs, which resulted in a ridership increase from approximately 17,500 riders in the 2024 season to nearly 44,000 riders in the 2025 season. This service expansion is being looked at as a proof of concept for the amount of demand that exists for the Mountain Rail service, and the potential for removing auto trips that would have otherwise been driven between the Fraser Valley and Denver.

Bus Service Expansion

Bustang (Interregional Bus Service)

Bustang, which began operating in 2015, is CDOT's interregional express bus service that connects urbanized areas across the state. Bustang primarily provides express service along three lines: the North Line (Denver to Fort Collins), West Line (Denver to Grand Junction), and the South Line (Denver to Colorado Springs). The passage of <u>SB22-180</u> provided \$30 million in direct funding for the expansion of Bustang service throughout a three-year pilot program, which planned to expand service along the I-25 corridor by 100% on weekdays and 200% on weekends, and service along I-70 west was slated to be increased by approximately 250%.

In December 2024, Bustang completed the implementation of the pilot service expansions for the I-25 North, I-25 South and I-70 West routes. The I-25 S and I-25 N route (Colorado Springs to Denver and Fort Collins to Denver) have each gone from six daily round trips Monday through Friday and two daily round trips Saturday and Sunday in 2022 to 12 daily round trips Monday through Friday and 6 daily round trips Saturday and Sunday. The expansion of the North and South lines was completed in November 2024.

The I-70 West Line went from four daily round trips Monday through Sunday in early 2022 to 15 round trips Monday through Sunday. The final phase of expansion of the West Line was completed in December 2024. The pilot service expansions on the West, North and South lines were made possible by placing 25 additional buses into service over the course of 2023 and 2024. Expanded Bustang service is further enabled by the development of Mobility Hubs at multiple locations across the state, discussed further under the increasing use of public transportation strategies.

Bustang also provides a variety of seasonal services to travelers throughout the year (Figure 5). Snowstang offers bus service to partner ski resorts on weekends and winter holidays from December through May. Bustang to Estes takes travelers from the Denver metropolitan area to Estes Park and Rocky Mountain National Park on weekends and summer holidays from May through September. RamsRoute buses travel between the CSU campus and Denver on Fridays and Sundays during the school year. Bustang to Broncos takes travelers between Fort Collins and Denver's Empower Field at Mile High, or Colorado Springs and Empower Field for every Broncos home game.





Figure 4 - Bustang and Outrider Route Map

For a larger, more detailed image, access the **Bustang and Outrider Route Map** online.



For a larger, more detailed image, access the **Bustang and Outrider Route Map** online.

Outrider

Launched in 2018, CDOT's Outrider program builds and expands transit service to connect rural areas to primary corridors and larger cities and towns. Outrider focuses on providing reliable and affordable transportation options, often partnering with local transit agencies to ensure comprehensive and accessible service. Outrider currently operates eight routes and offers buses equipped with amenities like Wi-Fi, power outlets, USB ports, and restrooms. Service expansion in 2022 included the increased frequency of the Sterling to Denver route, which went from one daily round trip on Tuesday and Thursday to running daily Monday through Friday. In October 2024, the Sterling to Denver route added a stop at Denver International Airport (DIA), while eliminating other stops which saw low ridership, reducing the length of the trip from Sterling to Denver by one hour. There is one daily round trip on Monday, Wednesday and Friday between Sterling and Greeley and two daily round trips Monday-Friday between Trinidad to Pueblo. A second daily round trip has been added between Crested Butte and Denver, which now runs Monday through Sunday.

Bus Rapid Transit

CDOT set aside \$170 million in the 10-Year Plan to support BRT projects on major state highway arterials in Region 1. In partnership with DRCOG, RTD, Denver Department of Transportation and Infrastructure, and other local agencies, CDOT continues to develop BRT projects on Federal Boulevard and Colorado Boulevard.

CDOT initiated environmental review and preliminary design for Federal Blvd BRT in August 2023 and was accepted into the Federal Transit Administration's Project Development for the Capital Investment Grants - Small Starts program in October 2023. In 2024, CDOT also procured consultant services to conduct alternatives analysis, environmental review, and preliminary design for Colorado Blvd. BRT. CDOT anticipates that both BRT projects will be in the construction phase by calendar year 2028 to be open for revenue service in 2030. This target is consistent with the 10-Year Plan goals of reduced VMT through these projects.

Additionally, CDOT is working with partners in Region 4 on the CO 119 BRT project between Boulder and Longmont and on preliminary projects supporting transit enhancements and an eventual BRT service on CO 7.

Increasing Use of Public Transportation

Increasing the use of public transportation services requires addressing the various barriers the public encounters within each element of the travel chain. Some barriers to using public transit include infrequent or unreliable service, cost to passengers, first-last mile infrastructure, accessibility for those with disabilities, poor supportive infrastructure, and more. The strategies discussed in this section work to increase the use of public transportation by addressing one or more of those barriers.

Zero Fare and Transit Pass Programs

To help address affordability and encourage ridership of existing transit services, Colorado established the <u>Ozone Season Transit Grant Program</u> in 2022 through the passage of SB22-180, which later became part of the Zero Fare Transit Grant Program in 2024. Designed to reduce ground-level ozone by increasing the use of public transit across the state, the program set aside \$28 million to enable participating transit agencies to provide free transit fares for at least a month during ozone season for a two year period. RTD participated as a grantee in

2022 and 2023. Outside the Denver metropolitan area, 14 agencies participated in the 2022 program, 16 agencies participated in the 2023 program and 13 agencies participated in 2024.



The "Zero Fare for Better Air" initiative provides free public transportation to reduce air pollution.

RTD provided zero-fare service on all of the agency's transit modes in August 2022 and then again in July and August of 2023. Initially, the Ozone Season Transit Grant Program provided funding to recover up to 80% of the lost fare revenue and other costs incurred by RTD. However, with the passage of <u>HB23-1101</u> "Ozone Season Transit Grant Program Flexibility" in 2023, grant funding was expanded to allow RTD to recover up to 100% of the lost fare revenue, allowing RTD to recover more funds during the 2023 Summer season.

RTD reported that overall ridership increased by 22% from July 2022 to August 2022, and 36% from August 2021. Due to the start of the school year, the agency typically experiences an increase in ridership between July and August each year. Average weekday daily ridership increased 19.9% in August compared to July and increased 32.4% as compared to August 2021.²⁴ For the 2023 season, RTD reported that from the June 2023 to July/August 2023 zero fare period, average monthly ridership increased by 22%; however, RTD estimates that the zero fare initiative contributed to a 12% increase in ridership over what would have been expected without zero fares due to normal seasonal variations in ridership.²⁵

The 2022 transit agencies grantees outside the Denver metropolitan area also provided farefree transit in August 2022. Thirteen of the fourteen agencies reported an uptick in ridership between July and August 2022. Several of the agencies noted that ridership decreased again

²⁴ Four Nine Technologies, <u>Zero-Fare August Impact Analysis Final Report</u> (Nov. 30, 2022), at 5.

²⁵ RTD, Zero Fare for Better Air: 2023 Evaluation Report (2023), at 29.

in September, but several agencies were able to sustain their net increase.²⁶ The 2023 grantees outside the Denver metropolitan area all experienced an increase in ridership during the program, with a 32.2% average monthly ridership increase across the agencies. Notably, nine of the thirteen agencies who provided 2019 data experienced higher ridership during 2023's fare-free program than they did pre-Coronavirus Disease 2019 (COVID-19).²⁷ Overall, these 16 agencies showed a 2% increase in ridership as compared to August 2019, indicating that many transit agencies have been able to bounce back from ridership decreases that occurred due to the COVID-19 pandemic.

To continue the successes associated with free transit discovered by the zero fare program which started with SB22-180, <u>SB24-032</u> "Methods to Increase the Use of Transit" established the Zero Fare Transit Grant Program. Remaining funds from the Ozone Season Transit Grant Program were transferred to this new grant program. Managed by the CEO, the Zero Fare Transit Grant program provides grants to RTD so they can offer free transit year-round to Colorado's youth. The program also provides grants to the Colorado Association of Transit Agencies so they can offer grants to eligible transit agencies for either free fares for youths or free transit services during periods of increased ground level ozone.

To further encourage use of public transit, <u>HB24-1036</u> "Adjusting Certain Tax Expenditures" extends the alternative transportation options tax credit through 2026 for employers providing alternative transportation options for its employees who are employed in Colorado. The alternative transportation options tax credit was established through HB22-1026 which is discussed further under the TDM strategy. The alternative transportation options tax credit has notably been used to encourage employers in the Denver region to enroll employees in <u>RTD's EcoPass program</u>, which provides employees an electronic travel token for unlimited rides on RTD buses and trains.

SB24-032 also created the <u>Statewide transit pass exploratory committee</u> within CDOT to produce a viable proposal for the creation, implementation, and administration of a statewide transit pass, including any recommendations for any necessary legislation in connection with the proposal by July 1, 2026. In conducting its work, the committee is required to consider specified issues and to solicit input from subject matter experts and interested parties across the state. The goal is to implement a statewide transit pass by January 1, 2028.

Mobility Hub Development

CDOT's mobility hubs address critical multimodal needs by connecting Bustang's robust regional network with local transit connections, Outrider service, car and bike services, van

²⁶ Generally from Colorado Association of Transit Agencies, online <u>2022 Ozone Season Transit Grant</u> <u>Program Report</u> (2022).

²⁷ Colorado Association of Transit Agencies, <u>2023 Ozone Season Transit Grant Program Report</u> (2023), at 5-6.

and car pools, and bike and pedestrian connections. Mobility hubs are currently under construction along Colorado's Front Range at approximately 10-mile spacing and will help reduce congestion and improve air quality while providing additional travel choices in light of Colorado's current population boom. Mobility hub status and location are shown in Figure 6.



Figure 6 - Bustang and Outrider Mobility Hubs

53

Five mobility hubs have been completed: the <u>Centerra Loveland Mobility Hub</u>, <u>Berthoud</u> <u>Mobility Hub</u>, Fort Collins Downtown Mobility Hub, Denver Union Station, and the <u>Firestone-Longmont Mobility Hub</u>. Two mobility hubs are currently entering the construction stage: the Broomfield/Thornton Mobility Hub broke ground in May 2025 and Skyridge/Lone Tree Mobility Hub will break ground in Summer 2025. Four mobility hubs are in the design stage: Harmony Road Park-N-Ride, Monument, Woodmen, and Fairplay. Four mobility hubs are in the concept phase: the Castle Rock Mobility Hub, North Pueblo Mobility Hub, Idaho Springs Mobility Hub and the Grand Junction Mobility Hub. The mobility hubs which are cited along Bustang routes will decrease end-to-end travel time and increase the efficiency of overall transit operations.

Increasing Funding for Transit

Two key bills were passed in the 2024 legislative session which will direct more funding to transit activity in the state: SB24-230 and SB24-184. <u>SB24-230</u> "Oil & Gas Production Fees" imposes a production fee to be paid quarterly by every producer of oil and gas in the state. Notably, 80% of the proceeds, expected to be close to \$90 million annually, will be used for public transit. Initial estimates suggest this strategy alone will move Colorado from 44th in the country in the percentage of total transit spending coming from state government up to 22nd. This fee revenue will also provide approximately \$20 million in annual funding to support passenger rail initiatives in the state, including the Northwest Corridor effort.

The CTE receives revenue from Oil and Gas Production Fees and created three new programs to help offset GHG emissions from fossil fuels: a Local Transit Operations Formula Program, a Local Transit Grant Program, and Passenger Rail Funding Program. The CTE has made significant progress standing up the programs created by SB24-230 since the law was enacted in Spring 2024. These new programs are not directly focused on transition to zero-emission transit services, but instead focus on "investing in public transit, including vehicles, infrastructure, equipment, materials, supplies, maintenance, and operations and staffing, to achieve the level of frequent, convenient, and reliable transit that is known to increase ridership by replacing car trips with bus and rail trips and forms of transit known to support denser land use patterns that further reduce pollution due to shorter trip lengths and greater walking and cycling mode share."²⁸ The CTE intends to begin implementing the Local Transit Operations Formula Program, which includes establishing program eligibility and creating a formula to allocate resources to agencies by the end of fiscal year 2025 and to begin distributing funds to transit agencies in FY26. As part of its role to implement the SB24-230 Passenger Rail Funding Program, the Enterprise is participating in the initiative to establish Northwest Corridor passenger rail service. Lastly, the CTE intends to begin developing policies and processes to stand up the SB24-230 Local Transit Grant Program in Summer 2025.

²⁸ § 43-4-1203(3)(a)(II), C.R.S.

<u>SB24-184</u> "Supporting Surface Transportation Infrastructure Development" creates a dedicated funding source for rail and transit through the CTIO, formerly known as the High Performance Transportation Enterprise (HPTE). The law encourages regional coordination between RTD, FRPR, and CDOT to explore opportunities to establish train service from Denver to Fort Collins. In addition, it directs CTIO to develop a multimodal plan that aligns with the 10-year transportation plan and statewide GHG pollution reduction goals. The bill also expands CTIO's capacity to execute mandated responsibilities and more explicitly prioritize mitigation of traffic congestion and traffic-related pollution through the completion of multimodal surface transportation infrastructure projects.²⁹

Active Transportation

Active transportation is any human-powered mode of transportation, such as walking or biking. Although public transit and active transportation are often viewed independently, there is a strong correlation between them. Studies show a higher level of physical activity among public transportation riders, likely because every trip on public transportation is multimodal. The benefits of active transportation are well-known; however, many people don't achieve them due to safety concerns either in their own neighborhood or near their destination. Safe and convenient opportunities to walk, bike and scooter expand the transportation network to people without access to cars.



Expanding the Active Transportation Network

In the Spring of 2024, CDOT kicked off an update to its <u>Statewide Active Transportation Plan</u>. This process will update and strengthen the 2012 Statewide Bicycle and Pedestrian Plan and build on the accomplishments and progress achieved through the pursuit of the goals identified in the 2012 plan. CDOT is also working to update Policy Directive 1602, which

²⁹ CEO, New laws signed by Governor Polis and supported by the legislature will bolster Colorado's comprehensive plans to address climate change (June 10, 2024).

codifies the accommodation of bicyclists and pedestrians on the state highway system. Programs and policies that support improving safe conditions for active transportation users reflect this strategy as a statewide priority.

As a part of Colorado's COVID-19 Recovery Plan, in 2020 CDOT launched the Safer Main Streets and <u>Revitalizing Main Streets</u> Programs. These programs grant funds to communities across the state to implement active transportation amenities and infrastructure improvement projects that yield long-term health and economic benefits to local main streets. With a statewide investment of almost \$160 million between 2020 and mid-2025, these programs collectively address important and often long overdue local pedestrian and bike infrastructure basic needs.

The Safer Main Streets program has invested over \$75 million across 33 projects located between northern Colorado and the Denver metropolitan area. The Revitalizing Main Streets Program provides grants to communities across the state as they find innovative ways to reuse public space, improve multimodal safety, and create vitality in downtowns. Between 2020 and March of 2025, the program has awarded 268 projects across the state of Colorado, demonstrating the large impact that small-scale projects can have. Numerous projects reach lower resourced communities that often cannot upgrade important main street elements without these essential grant funds. The program reaches all corners of the state, as shown in Figure 7.





Figure 7 - RMS Grant Awardees Locations as of May 30, 2025

For a more detailed awardee map, visit the <u>RMS website</u>.

Project examples include replacing and widening dilapidated sidewalks that were originally not ability inclusive (not compliant with the American with Disabilities Act), such as the project shown in Figure 8 in Fort Lupton, Colorado (before & after images).

Figure 8 - Before & After RMS Project in Fort Lupton, Colorado



<u>Colorado's Safe Routes to School</u> program seeks to make walking and bicycling to school safer and more accessible for children, including those with disabilities. The program works with individual schools, school districts, and communities to learn about the unique needs of each school or community. Some schools have worked with CDOT's engineering team to build sidewalks or have painted crosswalks to enhance safety; while others have focused on education or encouragement by starting programs such as a Walking School Bus to motivate children to be active. Colorado's Safe Routes to School funds are awarded through a statewide competitive process. Since 2022, the program has awarded \$11 million to 19 local jurisdictions for infrastructure and non-infrastructure projects. The projects are located in 12 counties throughout the state, including at least one project in each of CDOT's five engineering regions.

Signed by the Governor in April 2022 <u>HB22-1028</u> "Statewide Regulation of Controlled Intersections" established uniform statewide requirements that allow bicycles, electricassisted bicycles, electric scooters, and other non-motorized vehicles to make safety stops at intersections throughout the state, and reduces the maximum allowable speed of a safety stop to 10 miles per hour. The bill also requires CDOT, in collaboration with other agencies and non-government entities, to develop educational materials concerning legal requirements and safe practices for approaching controlled intersections. One indirect benefit of this legislation may be an increased use of bicycles for commuting, decreasing motor vehicle use and associated energy use and emissions.

Signed by the Governor in April 2022 <u>HB22-1104</u> "Powerline Trails" authorizes electric transmission providers to enter into contracts with public and private entities to construct and maintain powerline trails in an existing or future transmission corridor. This legislation will expand bicycle infrastructure throughout the state and help to encourage an increased use of bicycles for commuting.

Electric Micromobility and Shared Modes

Electric micromobility refers to the broad and growing range of personal transportation options that are powered fully or in part by an electric motor, beyond just privately-owned EVs. Some examples include e-bikes and e-scooters, along with shared options such as electric bikeshare networks, electric carshare networks, and electric vanpool services. These options and services can help to reduce VMT from internal combustion vehicle trips.

Through <u>SB22-193</u>, Colorado established funding for an e-bike rebate program that provided point-of-sale rebates for electric bicycle purchases to low- and moderate-income Coloradans. The Community Access to Electric Bicycles rebate program ran from August 2023 to April 2024, fulfilling one of the goals identified in the 2023 EV Plan. Qualified residents could receive up to a \$1,400 rebate for an e-bike. Additional incentives were available for the purchase of a helmet and lock, an e-cargo bike, or an adaptive e-bike. Over 34,000 people applied, with 7,985 Coloradans able to purchase an e-bike through the program. SB22-193 also established funding for the <u>Community Access to Electric Bicycles</u> grant program, which supports local governments and non-profit organizations in establishing e-bike share or e-bike ownership programs. In early 2024, CEO awarded grants to eight new projects, with e-bike deployment starting in May 2024.

In addition, the CEO launched the <u>Local Government Community E-Bike Rebate Grant Program</u> in October 2023 to provide funding to local governments across Colorado to create their own e-bike rebate programs. This program's funding match requirements expanded the impact of e-bike rebate funding from SB22-193 by encouraging local government investment in e-bike incentives. CEO awarded four grants to local governments in early 2024.

Through <u>HB23-1272</u> "Tax Policy That Advances Decarbonization" signed by the Governor in May 2023, Colorado established an <u>e-bike tax credit</u> starting in April 2024, which provides a \$450 point-of-sale discount to all Coloradans purchasing a qualified e-bike from a participating retailer. As of April 2025, over <u>137 retailers</u> are participating, with the expectation that even more retailers will participate as the program continues to mature. It is estimated that over 10,000 e-bikes have been purchased thus far via the tax credit.

To address safety concerns and prepare for an anticipated surge in e-bikes on Colorado's roads, CDOT is developing a multi-year, phased <u>e-bike safety campaign</u>. This campaign will proactively address important safety practices for e-bike riders. The first public facing phase

of the campaign launched in June 2024 in time for peak ridership season. The current campaign, which focuses on the Denver metropolitan area, will serve as a template for stakeholders to implement local campaigns across Colorado. A stakeholder working group composed of key e-bike stakeholders in the Denver metropolitan area; including representatives from City and County of Denver's Climate Action, Sustainability, and Resiliency Office (CASR), DRCOG, CEO, Bicycle Colorado, and It Could be Me, informed the campaign's approach.

Given the increasing popularity of electric mobility options, including electric car shares, ebikes, e-scooters, CDOT has developed the <u>E-Mobility Education and Awareness Grant</u> to support e-mobility education projects that will equip Coloradans with the right information to make informed decisions and encourage the adoption of e-mobility. The first round of the E-Mobility Education and Awareness grants were awarded in February 2023, distributing \$289,567 to three projects focused on developing e-mobility education and outreach programs in Colorado, and particularly to increase EV awareness in Disproportionately Impacted Communities. For the second round of grants in 2024, five grants were awarded for a total of \$382,215.

CEO's <u>CAMP</u>, run in partnership with the CAE, provides Technical Readiness Planning Phase and Implementation Phase grants for e-mobility projects. Technical Readiness Planning Phase grants may help cover the costs of community e-mobility planning projects, including community stakeholder engagement, research, and plan creation. Implementation Phase grants may help cover the costs of community e-mobility project implementations, including capital procurement and operations. The state has awarded eight grants for the CAMP Technical Readiness Planning Phase in addition to two grants for the CAMP Implementation Phase to date.

Transportation Demand Management

TDM is the discipline of encouraging and facilitating traveler behavior that makes more efficient use of the transportation network. Ultimately, this means providing people with more choice about how, where, when, and if they travel, such as giving them more freedom and flexibility in their work hours and location or making it more convenient, feasible, and attractive to take transit, ride a bike, or share their trip with other travelers. It focuses on managing the demand for transportation rather than solely increasing the capacity of the system.

The CDOT Office of Innovative Mobility (OIM) has developed three different grant programs available to private, public, non-profit, and local agencies across the state of Colorado.

• **TDM Seed Funding Grants:** The Strategic TDM Seed Funding Grant was developed by CDOT to establish new TMOs and permanent TDM programs in unrepresented areas of the state, and to add new perspectives to the TDM conversation that have the potential to increase TDM success in non-urban areas. During the four separate funding

rounds offered by the grant program, four awards have been made to three municipalities and one non-profit. Awards to Glenwood Springs, Clean Energy Economy for the Region (CLEER), and NFRMPO supported the development of TMOs across the Roaring Fork Valley and US 34 route respectively. Additionally, one award was made to the City of Fort Collins to support development and deployment of their TDM program, Shift Your Ride. These awards represent a total program awarded amount of \$400,000.

- TDM Innovation Grants: CDOT developed the Strategic TDM Innovation Grant to support and demonstrate creative solutions that address gaps in existing TDM approaches and programming. TDM includes strategies that maximize travelers' choices and, in doing so, allow them to make more efficient use of existing transportation infrastructure. To date, OIM has issued 31 TDM Innovation Grants totaling \$1.5 million to a wide variety of communities across the state.
- **TMO Support Grants:** Providing annual funding support with no match requirement to Colorado's TMOs, which have specialized local knowledge, capacities, and partnerships with businesses and communities, plays a crucial role in this effort. CDOT's OIM has added the TMO Support program to the regular annual support it issues each year. This year, CDOT will provide up to \$75,000 each for programmatic and operational support at established state TMOs that are not concurrently receiving funding from a TMO Seed Funding grant. To date the TMO support grant has provided funding to 9 TMOs at a total of \$2,340,000. Use of these funds has supported the development and implementation of TDM programs across the local area including microtransit, bike lockers, and planning activities to name a few highlights.

CDOT Policy Directive 1601 for Interchange Approval, which was created in April 2021 with a corresponding CDOT Procedural Directive (PD) signed in June 2022, requires applicants to implement a TDM project specific plan for both new interchange projects and interchange modifications on the state highway system. PD 1601 recognizes the need for the state to optimize the use and available capacity of the existing transportation infrastructure, with the intention to implement appropriate TDM strategies that preserve the functionality of interchanges on the state highway system in order to maximize the benefit created from new infrastructure investments. As our state continues to grow and develop, the TDM amendment emphasizes the benefits TDM can lend towards maximizing the use of transportation infrastructure and reducing VMT through strategies such as increased transit, mobility hubs, transit-oriented development, ridesharing, walking, biking, and telework to reduce reliance on single-occupant vehicles. OIM's Mobility Services unit developed an internal training on TDM strategies related to PD 1601. The training is expanding to include a series of TDM videos on the CDOT Colleague YouTube Channel targeting CDOT employees, consultants, and other transportation professionals involved in the pre-construction phase of projects. The goal is to increase understanding of TDM throughout CDOT and ensure that staff are prioritizing TDM at the beginning of projects. The training will also be used in conjunction with the forthcoming TDM Toolkit being developed by OIM to provide resources about TDM implementation.

In June 2022 Governor Polis signed <u>HB22-1026</u> "Alternative Transportation Options Tax Credit" concerning the replacement of the income tax deduction for amounts spent by an employer to provide alternative transportation options to employees with an income tax credit for amounts spent by an employer for that purpose. The bill eliminates the current corporate income tax deduction for expenses incurred providing alternative means of transportation for employees, and replaces this deduction with a refundable tax credit equal to 50% of expenditures incurred by providing alternative transportation options to their employees beginning in 2023. Alternative transportation includes free or partially subsidized mass transit; free or partially subsidized ridesharing arrangements, including bike sharing and electric scooter sharing programs; provision of ridesharing vans; and guaranteed ride home programs. Expanding employer-based programs to reduce vehicle travel is a near term action strategy in the State GHG Roadmap 1.0.³⁰ As mentioned above, <u>HB24-1036</u> "Adjusting Certain Tax Expenditures" extended the alternative transportation options tax credit through 2026.

CDOT Strategic Funding Programs

Multimodal Transportation and Mitigation Options Fund

The Multimodal Transportation and Mitigation Options Fund (MMOF) was first created by the State Legislature in 2018, providing a one-time allocation of state general funds for statewide multimodal transportation improvements. SB21-260 expanded the goals of the program to specifically include investments that mitigate transportation-induced GHG emissions while dedicating a significant portion of the State's COVID Fiscal Recovery Funds and creating a source of additional annual state revenues to sustain the program.

Projects eligible for MMOF funding include capital or operating costs for fixed route or ondemand transit, TDM programs, multimodal transportation studies, bicycle or pedestrian projects, multimodal mobility projects enabled by new technology, modeling tools, and any GHG mitigation projects that reduce VMT.

Since the program's inception, a combined total of over \$309 million has been made available to the program, providing awards of funding for 310 individual projects statewide, including:

- 62 Public Transit projects.
- 187 Bicycle & Pedestrian infrastructure improvements.
- 51 Other Multimodal and TDM projects.

Between 2022-2025, a total of \$124.8 million of MMOF funding was expended on awarded projects, and \$127.5 million expended since the program's inception. An additional \$97 million of funding is expected to be available to the program over the next five years (FY2026-2030), enabling an additional 40-50 projects statewide. During this time an anticipated \$200 million more will be expended in the implementation of those projects.

³⁰ CEO, <u>2022 Legislative Session Snapshot</u> (June 2022),

Transportation Alternatives Program

Federal funds are allocated under TAP to transportation improvement projects that expand travel choice, strengthen the local economy, improve quality of life, and protect the environment. TAP was authorized in 2012 by federal transportation legislation, Moving Ahead for Progress in the 21st Century Act (MAP-21), and is now continued under the current federal transportation legislation, the IIJA. TAP provides funding for programs and projects defined as transportation alternatives, including on- and off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to public transportation and enhanced mobility, community improvement activities, and environmental mitigation; recreational trail program projects; and projects for planning, designing, or constructing boulevards and other roadways largely in the right-of-way of former Interstate System routes or other divided highways.

In 2023, a call for projects awarded <u>\$42 million in grants</u> for FY 2024 to 2026. CDOT's next round of TAP funding is scheduled to be announced in early 2026, awarding funds for FY 2027 to 2029.

Strategic Growth

Land use patterns affect the distance people travel and the mode choice for travel. On average, households living in the densest parts of metropolitan areas consistently produce lower carbon emissions than households living in suburban, exurban and rural areas. Land use strategies that promote mixed-use development and provide supportive multimodal transportation infrastructure result in shorter and fewer trips by single occupancy vehicles.³¹

Land Use Research and Analysis

In 2021, as directed by the GHG Roadmap 1.0, an interagency group composed of CDOT, CEO, DOLA, CDPHE, and the Department of Natural Resources (DNR) convened the Land Use Stakeholder Group to develop a partnership between state and local entities that "incentivizes smart land use decisions." This group, composed of state agencies and local government representatives, drafted a <u>research report</u> released in July 2022. The report details common land use challenges and desired outcomes that are prevalent in local Colorado communities, and points towards potential land use strategies that would reduce GHG emissions, informing aspects of future legislation as discussed in the next section.

In November 2024, CEO in partnership with CDOT and DOLA, released the <u>Colorado Land Use</u> <u>Policy and GHG Co-benefits Study</u>. The study assesses the impact of land use policies, many of which are similar to the land use legislation adopted in the Spring of 2024, with the potential to substantially reduce GHG emissions associated with new residential buildings and

³¹ Christopher Jones & Daniel M. Kammen, <u>Spatial Distribution of U.S. Household Carbon Footprints</u> <u>Reveals Suburbanization Undermines GHG Benefits of Urban Population Density</u>, Environ. Sci. Technol. (Dec. 13, 2023) at 48, 2, 895-902.

transportation between 2024 and 2050. The study's results will help inform the projected emissions reductions benefits of the land use strategies included in the GHG Reduction Roadmap 2.0, as well as from implementing recent land use legislation at the state and local level. Notably, the study found that policy changes to encourage more compact housing within cities would significantly impact the type and location of new housing in ways that reduce the GHG pollution associated with new development, both from buildings and transportation. The analysis concluded that a robust policy package with a focus on higher density development could reduce building emissions associated with new development by 30% and transportation emissions by nearly 15%.

Some of the most meaningful policy changes modeled in the study were related to increasing transit-oriented development, allowing accessory dwelling units (ADUs), and removing minimum parking requirements. The state has passed a number of laws that are similar to those modeled policies, including HB24-1152, HB24-1313, and HB24-1304, discussed in further detail below.

Supportive Legislation

In May 2021 Governor Polis signed <u>HB21-1117</u> "Local Government Authority Promote Affordable Housing Units" concerning the ability of local governments to promote the development of new affordable housing units pursuant to their existing authority to regulate land use within their territorial boundaries. This bill clarifies that local governments may apply inclusionary zoning requirements to new rental units and conditions use of this authority on taking action to increase housing supply through actions to increase the number and density of housing. Such actions may include allowing more than one unit per lot in 'single family" zones, rezoning for mixed use development, relaxing occupancy restrictions, reduced parking requirements, reduced fees for affordable housing, and other measures.

In June 2021 Governor Polis signed <u>HB21-1271</u> "Department Of Local Affairs Innovative Affordable Housing Strategies" concerning the establishment of programs offering state assistance to local governments to promote the development of innovative affordable housing strategies in a manner that is compatible with best local land use practices. This bill created the <u>Innovative Affordable Housing Strategies</u> program including three programs that offered grant money and other forms of state assistance to local governments to promote innovative solutions to the development of affordable housing across the state. The program is administered by DOLA. The funds are tied to communities taking action to reform their land use policies to support denser housing that helps address affordability. Both HB21-1117 and HB21-1271 will encourage the development of housing near jobs, a key strategy in the State GHG Roadmap for reducing emissions from transportation. The bill incentivizes actions such as allowing duplexes and triplexes in "single family" zones; allowing ADUs, relaxing minimum parking requirements and lifting occupancy restrictions.³² Since November 2021, the planning program has awarded approximately \$5.4 million to 63 local governments that are changing

³² CEO, <u>2021 Legislative Session Snapshot</u> (June 2021), at 4.

local regulatory and process requirements to encourage affordable housing development. In April 2022, the Incentives Program made its first awards, providing more than \$18.4 million to 14 affordable housing development projects. For Incentives Program grants, review criteria prioritized projects that demonstrated sustainable development patterns (e.g., infill to reduce VMT) and awarded bonus points to projects that incorporated energy efficiency and renewable energy components. In March 2023, the program awarded the last of the incentive funds: \$19.85 million to 16 communities supporting affordable housing projects.

In June 2022 Governor Polis signed <u>HB22-1304</u> "State Grants Investments Local Affordable Housing" concerning state grants for investments in affordable housing at the local level, and, in connection therewith, creating the local investments in transformational affordable housing grant program and the infrastructure and strong communities grant program to invest in infill infrastructure projects that support affordable housing. The <u>Infrastructure and Strong</u> <u>Communities Grant Program</u> is a \$40 million program that is administered by DOLA with support from CEO and CDOT. It is a competitive grant program for infill infrastructure investments that support affordable housing. This program includes two parts:

- **planning grants** to help communities align policies and regulations to incentivize affordable housing in infill locations near jobs, transit, and everyday services.
- **infrastructure grants** to assist local governments in funding improvements such as sidewalks and water infrastructure that supports the development of new affordable housing near transit and job centers.

As of June 2024, DOLA awarded just over \$2 million to 16 planning grants to assist communities in adopting land use strategies to promote strategic growth objectives. The Infrastructure grant program received 58 letters of intent requesting \$165 million to support more than 9,700 units of affordable housing development and awarded over \$35 million to 16 projects around the state. Program review criteria prioritizes grants for strategies and projects that support the statutory goals of the program, including locating affordable housing in infill areas near jobs, transit, and services, and reducing VMT.³³

In Summer 2023, Governor Polis issued <u>EO D 2023-014</u>, Concerning State Programs that Support Strategic Growth. The EO directs state agencies to align the administration's programs and policies with increasing housing supply close to existing, new or expanded public transit, safe biking and walking corridors, places of employment, and other everyday needs of Coloradans. The goals of the Governor's EO include increasing housing opportunities, protecting the environment and supporting our climate goals, aligning transportation with the state's growing needs, protecting and increasing economic growth and mobility, ensuring state processes are as quick and as efficient as possible, and considering the context and needs of different regions of the state. In December 2023, as a first implementation step, state agencies completed an

³³ CEO, et al., <u>Biannual GHG Emission Reduction Implementation Report</u> (June 2024).

inventory of state programs and policies that impact strategic growth goals and made recommendations to better align them with the goals listed in the EO.³⁴

In 2024 Governor Polis signed a series of bills that will support strategic local land use and affordable housing efforts:

HB24-1007 "Prohibit Residential Occupancy Limits" prevents local governments from enacting or enforcing residential occupancy limits based on familial relationship. This law is expected to increase housing opportunities for Coloradans throughout the state and will decrease energy and water use by allowing more people to share existing homes. Local governments retain authority to implement residential occupancy limits based on demonstrated health and safety standards such as international building code standards, fire code regulations, or CDPHE wastewater and water quality standards.

<u>HB24-1116</u> "Extend Contaminated Land Income Tax Credit" focuses on helping residents and businesses redevelop contaminated land and improve housing and economic opportunities by extending the Brownfields Tax Credit for five years. Qualified applicants who submit a voluntary cleanup plan may claim the tax credit for a portion of the cost of performing environmental remediation of contaminated land associated with new capital improvement or redevelopment projects.

<u>HB24-1152</u> "ADUs" allows owners of single-family homes in many parts of Colorado to build ADUs. These smaller living areas, which can be part of an existing building or a new structure, are useful for increasing housing availability and density while using existing water, sewage, and transportation infrastructure. By June 30, 2025, certain jurisdictions will need to update their zoning codes to allow these units, including municipalities with a population of 1,000 or more within the area of a MPO. Jurisdictions that are a portion of a county that is both within a census designated place with a population of 40,000 or more and within the area of a MPO are also covered by this law. With limited exceptions, the bill prohibits parking mandates for ADUs and ongoing owner occupancy requirements. The bill also contains a grant program and financing to support ADU development with a focus on low and moderate income homeowners and renters. Jurisdictions that are exempt from the ADU requirements in the law may opt-in to the requirements to access these grants and financing opportunities. Because ADUs are smaller units that will create more housing opportunities near jobs, this bill will reduce both building and transportation energy use.

<u>HB24-1304</u> "Minimum Parking Requirements" starting June 30, 2025, prevents cities and counties in MPOs from enforcing or adopting minimum parking requirements for multifamily residential, residential adaptive reuse projects, and mixed-use projects with at least 50% residential uses that are located within a quarter-mile of rail and bus stations with service at least every 30minutes. The state created a map of applicable transit areas by September 30, 2024, based on the most recent transit service plans adopted prior to January 1, 2024. Lowering parking

³⁴ CEO, et al., <u>Biannual GHG Emission Reduction Implementation Report</u> (December 2023).

requirements reduces the costs of building new multifamily housing, increases the number of homes that can be built on a single lot, and facilitates infill development where parking requirements prevented development in the past. Eliminating parking minimums has also been shown to reduce GHG pollution by decreasing the number of VMT.

HB24-1313 "Housing in Transit-Oriented Communities" establishes a calculation to set Housing Opportunity Goals for local governments with rail, BRT, or frequent bus service to increase the number of homes that can be built near transit and city and town centers. The Housing Opportunity Goal is a zoning capacity target based on a formula that includes the amount of qualifying transit each community has, a housing density level that's needed to support transit ridership and affordable housing development, and exemptions that exclude undevelopable land. To meet their Housing Opportunity Goal, local governments have flexibility to identify the areas closest to bus stops, train stations, and business and shopping districts where it makes sense for people to live and work, as long as the zoning capacity in these areas combined meet or exceed the Housing Opportunity Goal. Local governments are required to meet their Housing Opportunity Goal; those that meet it will also qualify for a new Transit-Oriented Communities Infrastructure Fund and a new State Affordable Housing Tax Credit, created by HB24-1434.

<u>HB24-1434</u> "Expand Affordable Housing Tax Credit" includes, among other aspects, tax credits for transit-oriented housing, which is a key component of strategic growth. Transit-oriented housing lowers driving miles, which is an important part of an overall climate plan.

<u>SB24-174</u> "Sustainable Affordable Housing Assistance" requires DOLA to develop reasonable methodologies to conduct statewide, regional, and local housing needs assessments and provide guidance for local governments to identify areas at elevated risk of displacement, no later than December 31, 2024. Then, no later than November 30, 2027, and every six years after, DOLA must conduct a statewide housing needs assessment analyzing existing and future statewide housing needs and publish a report that quantifies current housing stock and estimates statewide housing needs. The law also requires DOLA to evaluate the impacts of urban sprawl in a strategic growth study, which it will use to develop and present policy options to the legislature by October 31, 2025.³⁵ Additionally, this law requires local comprehensive plans to include a strategic growth element by December 31, 2026.

DOLA is working to support local government implementation of several of these laws through providing guidance and technical assistance, <u>summarized on their webpage</u>.

Colorado remains focused on reducing VMT through providing more travel options and making existing alternative travel options to single occupancy vehicle travel more accessible. This includes consideration of strategies to address the unique needs in both urban and rural areas of the state.

³⁵ CEO, et al., <u>Biannual GHG Emission Reduction Implementation Report</u> (June 2024).



Transportation-Related GHG Emissions in Colorado

Background

The CDPHE has been assessing emissions of GHGs since 1990. Since the state created Colorado's first technical climate change assessment in 1998, CDPHE has published inventory reports in 2002, 2007, 2014, 2019, 2021 and 2023. The first three reports (1998, 2002, 2007) were published without any legislative or executive obligation. In 2008, then-Governor Bill Ritter signed EO #D-004-082, requiring CDPHE to update the state Inventory every five years. Following that order, the legislature passed <u>SB19-096</u> in 2019. That bill was to "Collect Long-term Climate Change Data" and it funded the creation of the Climate Change Program (CCP) within CDPHE's APCD. It also established the statutory requirement to publish inventories no less frequently than every two years (biennially). While fulfillment of the EO was delayed until the 2014 Inventory, the 2019 Inventory met both the EO's and statute's requirements.³⁶ The most recent <u>Colorado Statewide Inventory of GHG Emissions and Sinks</u> was published in December 2023 and updated in November 2024. The statewide inventory report, among many other sectors, includes an evaluation of transportation sector emissions in Colorado and formed the basis for the discussion in this section.

APCD's transportation sector emissions inventory analysis includes estimated CO_2 , CH_4 , and nitrous oxide (N₂O) emissions resulting from the combustion of fuels used for transportation in Colorado. This includes emissions from on-road (primarily on-highway), off-road (snowmobiles, industrial LD utility vehicles, and industrial HD utility vehicles), and non-road vehicles (boats, locomotives, construction equipment and aircraft).

Methodology

The transportation sector inventory provides estimates from the years 2005 to 2020. The inventory utilizes two modules from the EPA State Inventory Tool (SIT) model: Direct CO_2 Emissions from Combustion of Fossil Fuel (CO2FFC) and CH₄ and N₂O Emissions from Mobile Combustion. The CO2FFC module estimates CO_2 emissions from the combustion of fuels for residential, commercial, and industrial (RCI), transportation, and electric utility uses. The CO2FCC module was used to estimate direct CO_2 emissions from the combustion of fossil fuels, excluding ethanol blended into gasoline, for transportation. The Mobile Combustion Module was used to estimate CH₄ and N₂O emissions from the combustion of fossil fuels for transportation. This method accounted for a variety of factors, including engine type, fuel combusted, control technology, cold start operation, and operating conditions such as low speed and aggressive driving. Historical emissions were estimated for 2005 through 2020 using

³⁶ APCD, CDPHE, <u>2023 Colorado Statewide Inventory of Greenhouse Gas Emissions and Sinks</u> (November 2024).

a variety of data sources and methodologies from the Intergovernmental Panel on Climate Change (IPCC) and the EPA to support a multifaceted approach for Colorado's GHG inventory.

Historical Statewide Transportation Emissions

In 2020, the most recent year for which historical emissions were calculated in the most recent inventory, Transportation emissions were 25.038 MMT CO_2e and accounted for about 18.5% of Colorado's Statewide GHG inventory when Land Use, Land-Use Change, and Forestry (LULUCF) is excluded, and about 16.9% when LULUCF is included. The majority of these emissions resulted from the combustion of gasoline and diesel fuels. The following table represents the historical transportation sector emissions based on fuel type since 2005.

Fuel	2005	2010	2015	2020
Alternative Fuels	0.001	0.001	0.001	0.001
Aviation Gasoline	0.047	0.041	0.030	0.038
Diesel/Distillate Fuel	5.814	6.335	6.193	6.619
Gasoline	18.686	17.712	17.623	15.400
Hydrocarbon Gas Liquids (HGLs)	0.019	0.006	0.029	0.005
Jet Fuel	3.839	3.341	3.058	2.346
Natural Gas	0.734	0.774	0.519	0.629
Grand Total	29.138	28.210	27.453	25.038

Table 2 - Transportation Emissions by Fuel Type (MMT CO2e)³⁷

Transportation emissions in total declined 4.100 MMT CO_2e or 14% from 2005 to 2020, with a particularly steep decline from 2019 to 2020. The overall decline in emissions is primarily due to the decline in gasoline and jet fuel emissions, which in 2020 are likely an impact of the COVID-19 pandemic. The decline between 2005 and 2020 is notable considering that Colorado's population increased by 24% over the same time period.

³⁷ Id., Table 3.15, at 3-45.



Transportation Trends

CDOT provides an annual transportation trends report to the TC on factors pertinent to the GHG reduction provisions outlined.³⁸ The annual transportation trends report helps the TC to evaluate whether current trends in key performance indicators inform the need to consider policy changes. It aligns with the requirements of the transportation planning rule and is made available annually for review by the Colorado TC. The annual transportation trends report covers a comprehensive set of performance indicators that highlight the transportation sector's impact on GHG emissions, as well as broader economic and societal trends. The last transportation trends report was published in October 2024. This accomplishments report features the most recent available data for some indicators since the October 2024 publication.

Population

The SDO provides population estimates and forecasts for Colorado's regions, counties, and municipalities annually. Estimates are provided in the late summer of each year. Population growth plays a critical role as it directly influences GHG emissions. As the population increases, so does the demand for transportation. By closely monitoring population trends, CDOT can better anticipate changes in transportation needs and adjust its strategies to meet GHG reduction targets effectively.

Over the past decade, Colorado has experienced consistent population growth. From 2014 to 2023, the State's population increased by approximately 9.9%. The growth rate has been relatively steady, with slight annual increases. Notably, the NFRMPO has seen the highest growth rate among MPOs, with an 18.8% increase since 2014. In contrast, the PACOG has had the smallest growth, at 5.2% over the same period. The non-MPO areas also exhibit a modest growth trend, with a 5.9% increase in population.



³⁸ <u>2 CCR 601-22</u>.

Year	Statewide	DRCOG	NFRMPO	PPACG	PACOG	GVMPO	Non-MPO Areas
2014	5,347,655	3,056,645	469,488	662,967	150,413	133,376	874,766
2015	5,446,594	3,121,159	483,297	675,023	151,878	134,276	880,961
2016	5,529,631	3,168,887	493,552	689,262	153,425	135,721	888,784
2017	5,599,588	3,205,653	503,653	701,717	154,734	137,419	896,412
2018	5,676,912	3,248,912	514,545	714,596	155,771	139,219	903,869
2019	5,734,909	3,282,361	525,136	722,192	156,521	140,224	908,475
2020	5,784,970	3,312,404	533,141	728,896	157,252	141,296	911,980
2021	5,811,121	3,317,324	540,241	733,667	158,081	142,657	919,151
2022	5,840,234	3,328,221	549,239	736,882	158,210	143,720	923,962
2023	5,876,300	3,348,452	557,749	740,343	158,261	144,783	926,711

Table	3 -	Historical	Colorado	and	MPO	Po	pulation	Estimates
10010	-	1 Hotor reat	00101000				paracion	Estimates

VMT

VMT data is provided by the CDOT Division of Transportation Development through its annual traffic counting program. By tracking VMT, the Transportation Trends report assesses travel behavior trends and their potential impact on the State's overall carbon footprint, providing insights necessary for effective GHG reduction strategies. The following figures and tables illustrate VMT and VMT per capita for Colorado and its MPOs.



Year	Statewide	DRCOG	NFRMPO	PPACG	PACOG	GVMPO	Non-MPO Areas
2014	48,985.1	25,018.4	3,179.8	4,556.6	1,004.1	820.6	14,405.5
2015	50,437.3	25,858.5	3,301.4	4,748.7	1,018.8	837.0	14,672.6
2016	52,009.1	26,645.8	3,419.9	4,824.8	985.3	850.3	15,282.9
2017	53,382.1	27,151.0	3,548.7	4,960.3	1,002.2	869.6	15,850.2
2018	53,953.6	27,523.7	3,751.3	5,187.3	1,030.4	870.9	15,590.4
2019	54,633.6	27,760.4	3,774.2	5,179.0	1,034.5	869.2	16,016.7
2020	48,509.4	24,429.9	3,381.3	4,629.9	954.6	779.6	14,333.7
2021	53,839.3	27,125.3	3,747.8	5,114.4	1,040.1	861.3	15,950.1
2022	53,935.3	27,099.4	3,840.9	5,422.0	1,106.0	869.2	15,597.7
2023	54,661.7	27,434.6	3,915.0	5,494.4	1,125.6	880.2	15,812.0

Table 4 - Historical Colorado and MPO VMT (millions)

VMT per Capita

VMT per capita measures the average number of miles traveled by each person within a given area, helping to gauge the relationship between travel behavior and population size. Population data from the State Demographer's Office is used to calculate VMT per capita.






Table 5 - Historical Colorado and MPO VMT per Capita

Year	Statewide	DRCOG	NFRMPO	PPACG	PACOG	GVMPO	Non-MPO Areas
2014	9,160	8,185	6,773	6,873	6,675	6,153	16,468
2015	9,260	8,285	6,831	7,035	6,708	6,234	16,655
2016	9,406	8,409	6,929	7,000	6,422	6,265	17,195
2017	9,533	8,470	7,046	7,069	6,477	6,328	17,682
2018	9,504	8,472	7,290	7,259	6,615	6,256	17,249
2019	9,526	8,457	7,187	7,171	6,609	6,198	17,630
2020	8,385	7,375	6,342	6,352	6,070	5,518	15,717

Year	Statewide	DRCOG	NFRMPO	PPACG	PACOG	GVMPO	Non-MPO Areas
2021	9,265	8,177	6,937	6,971	6,580	6,037	17,354
2022	9,235	8,141	6,983	7,358	6,992	6,044	16,903
2023	9,302	8,193	7,019	7,421	7,112	6,079	17,062

The VMT data generally indicates an increase in both total VMT and VMT per capita from 2014 to 2023. In 2023, statewide VMT increased by 1.3% from the previous year and 11.6% from 2014. This upward trend is consistent across most MPOs, with notable increases in the NFRMPO and PPACG areas. The GVMPO area, however, experienced a slight decline in VMT per capita. VMT per capita also saw a slight rise of 0.7% statewide from 2022 to 2023, reflecting a moderate growth in road use per person. VMT per capita has decreased over the last two decades, with VMT per capita in Colorado at 10,281 in 2005 and preliminary numbers for 2024 indicate 9,280 VMT per capita.

Notably, per capita VMT is roughly twice as high in non-MPO rural areas as compared to the MPO areas, primarily due to the significantly longer distances needed to travel for jobs, goods, and services. Reducing VMT in rural areas is uniquely challenging and requires applying different strategies than in urban areas.

The overall increase in statewide VMT over the past decade suggests a growing demand for travel and increased mobility options, though regional variations highlight differing transportation dynamics across the state. Reviewing VMT data alone has limitations when trying to associate it with trends in GHG emissions. VMT data is not reflective of improvements in vehicle fuel efficiency, reductions in tailpipe emissions from vehicle emissions standards, nor the adoption of EVs. Generally, even with VMT increases, emissions are often lowering over time with improvements in vehicle technology and fleet turnover. Trends in VMT indicate the importance of continued focus on VMT reduction strategies as well as electrification and use of alternative low carbon fuels for reducing GHG emissions.

Electric Vehicle Registrations

EV data tracks the original registrations of EVs in Colorado, capturing both new sales and outof-state transfers. The data includes BEV and PHEVs, providing insight into the adoption of EV technology and its impact on reducing GHG emissions.

Figure 10 illustrates the total cumulative number of original EV registrations in Colorado over time, which includes BEV and PHEV.





Table 6 - Historical Original EV Registrations, Total and Major Vehicle Categories(Cumulative)

Year	EV Original Registrations	BEV Original Registrations	PHEV Original Registrations
January 2016	8,659	4,849	3,810
January 2017	9,539	5,526	4,013
January 2018	12,955	7,746	5,209
January 2019	22,920	14,850	8,070
January 2020	25,829	17,265	8,564
January 2021	32,734	22,649	10,085
January 2022	50,059	35,034	15,025
January 2023	72,717	52,260	20,457
January 2024	108,989	78,413	30,576
January 2025	168,509	121,903	46,606

The data for EV registrations demonstrates significant growth in Colorado. As of January 2025, total original EV registrations have reached 168,509 marking a 54.6% increase from the previous year and a remarkable 1,846.1% increase from 2016. BEV and PHEV have both seen substantial growth, with BEVs increasing by 55.5% from 2024 and 2,414.2% from 2016, and PHEVs rising by 52.4% from 2023 and 1,123.3% from 2016. The cumulative data from 2016 to 2025 shows a consistent upward trend in registrations, reflecting a growing adoption of EVs in the state. As of June 2025 EVs represent 3.8% of the approximately 4.9 million LD vehicles on the road statewide in Colorado.³⁹ Over time Colorado should observe lower use of hydrocarbon fuels as more BEV and PHEVs operate in Colorado.

Statewide Transit Data

Statewide transit data includes unlinked passenger trips and RSM. Unlinked passenger trips count each trip made by a rider, regardless of the mode of transit. The data is provided by the National Transit Database (NTD) and is reported by each transit agency that receives federal funds. RSM represents the total miles traveled by transit vehicles while in service and available to carry passengers. Another way of thinking about this data is that RSM indicate the extent of service being provided, while unlinked passenger trips indicate the use of those services. These performance indicators are crucial for assessing the use of public transportation and its effectiveness in reducing reliance on personal vehicles, thereby contributing to lower GHG emissions.

Revenue Service Miles

This figure illustrates RSM for major Colorado transit agencies, with a zoomed-in view for agencies with RSM below \$5 million.

³⁹ Atlas Public Policy, EValuateCO (2021).









In 2023, Colorado saw a slight increase in statewide RSM, with the total reaching 80,807,762 miles, a 0.7% rise from 2022. Bustang reported 1,991,460 revenue service miles in 2023, a 60.2% increase from 2022. RTD recorded a 2.3% decrease in revenue service miles, while Transfort saw a 1.4% decrease compared to 2022. Non-MPO areas experienced an increase of 3.2%. Overall figures remain below pre-pandemic levels.

These trends in unlinked passenger trips and RSM highlight the importance of strategies referenced above focused on improving service, ridership and funding for transit.

Unlinked Passenger Trips

These figures illustrate the number of unlinked passenger trips for major Colorado transit agencies, with a zoomed-in view for agencies with trips below 5,000,000 in Figure 14.



Figure 13 - Unlinked Passenger Trips, Statewide and Major Colorado Transit Agencies



Figure 14 - Unlinked Passenger Trips (zoomed in), Statewide and Major Colorado Transit Agencies*

* Chart is zoomed in to display major Colorado transit agencies with unlinked passenger trips below 5,000,000.

Unlinked passenger trips in Colorado saw a significant increase in 2023, with total unlinked passenger trips rising to 91,340,343 a 7.9% increase from the previous year. The increase in 2023 reflects a continued recovery from the sharp declines experienced during the COVID-19 pandemic. Major transit agencies such as RTD (DRCOG) and Transfort (NFRMPO) also experienced increases in ridership, though overall figures across all MPO transit agencies still remain lower than pre-pandemic levels. Non-MPO areas showed a notable increase of 11.4% from 2022 to 2023, where transit ridership has now exceeded pre-pandemic levels in less urbanized regions.

Increasing use of public transit is an important strategy for Colorado. Considering the big picture, when greater RSM are offered, increases in ridership occur. Key strategies to increase ridership include making services more frequent and reliable thereby reducing wait times, ensuring stops are safe and accessible, expanding coverage and connectivity between services and reducing fares. Much of the work outlined in the "Increasing Use of Public Transportation" section in this report works to increase ridership of existing transit service in the state by lowering cost barriers, implementing TDM strategies, expanding active transportation networks that connect to transit, and improving and siting new transit facilities. Increasing RSM is being addressed through numerous expansions in transit service, including Bustang, Outrider, BRT projects, FRPR, and Mountain Rail. Additionally, numerous new sources of revenue for transit will focus on improving and expanding rail and transit service.

Active Transportation

CDOT is currently working on establishing a statewide bicycle and pedestrian count program to improve the accuracy and consistency of bicycle and pedestrian volume data collection. The unique nature of active transportation presents challenges in detecting and tracking these modes, necessitating the development of a systematic approach. The CDOT Active Transportation Program is collaborating with the CDOT Office of Transportation Analytics and Applied Research and Innovation branches to explore effective technologies for this purpose.

In the interim, CDOT relies on census data, national surveys, and publicly available micromobility usage data to assess bicycle usage. According to the American Community Survey, the share of Coloradoans using bicycles or walking as their primary commute mode was approximately 3.5% in 2022, down from 4.9% in 2012 but still above the national average of 2.9%. The decline in active transportation commuting is partly attributed to a significant increase in telework.

For non-commute trips, active transportation mode share tends to be higher due to greater flexibility and shorter trip lengths. The National Household Travel Survey's NextGen data shows that in 2022, active transportation accounted for over 12% of all trips within Colorado's ten zones, with Boulder having the highest mode share at 17.1%. Nationally, the active transportation mode share was 12.7%.

One key component of active transportation is shared electric scooter and electric bike programs, particularly in urban and suburban areas. Shared e-micromobility programs can expand the benefits of active transportation to even more people and can act as an extension of public transit, providing effective first-mile last-mile solutions for residents.





Figure 15 - Colorado Shared E-Scooter and E-bike Ridership Data,⁴⁰ 2019 to 2024

The use of shared e-micromobility facilities has steadily increased in Colorado since their inception in 2019, both due to an expansion of services across Colorado's cities and increased utilization of these services. While these services are provided by private companies, shared e-micromobility services play an important role in helping local governments meet their sustainable transportation goals - reducing congestion and air pollution while increasing mobility options and serving as first-and last-mile connections to public transit. Shared e-micromobility makes it easier to get around without a car, particularly for short trips. Agencies and local governments play a role in supporting shared e-micromobility services by allowing these companies to operate in their communities, providing supportive infrastructure through bike lanes and multi-use paths, and working with partners to promote safe e-micromobility use.

Fuel Consumptions and Sales

The Colorado Department of Revenue (DOR) provides <u>motor fuel consumption reports</u> which compile the gallons per fuel type reported by every licensed distributor, supplier, carrier, exporter, importer, blender, refiner and terminal operation of motor fuels in Colorado. Observing trends in the sale of transportation fuels can reveal whether transportation related GHG emissions are increasing or decreasing in real time.

⁴⁰ Ride Report, <u>Ride Report Micromobility Dashboard, State of Colorado</u> (2025). Includes ridership data for the cities of Arvada, Aurora, Boulder, Colorado Springs, Denver, Fort Collins, Grand Junction, Greely, Littleton, and Thornton from private e-share mobility operators.



Tracking fuel sales is an effective indicator of trends in GHG emissions as consumption of fuel accounts for efficiency improvements in hydrocarbon consuming vehicles and the transition of vehicles to non-emitting EVs. These effects are not accounted for when looking at VMT alone.

Per capita fuel sales have decreased since 2018. It is likely that this decrease is due to fuel efficiency improvements in new vehicles as well as changes in commuting patterns due to remote work following the COVID-19 pandemic, rather than a decrease in driving given that VMT data generally indicates an increase in total VMT from 2014 to 2023.

⁴¹ Includes gasoline, gasahol, highway diesel, and highway alternative fuels. Does not include aviation fuel. Gasahol is a blend of ethanol (of 10% or greater) and gasoline in varying percentages. For the purposes of this reporting, it includes but is not limited to E10 and E85. Alternative fuels include CNG, liquefied natural gas (LNG), and liquified petroleum gas.



Conclusion

Reducing emissions from the transportation sector can be broadly summarized as a twopronged approach: reducing emissions from vehicles themselves through improvements in fuel efficiency and engine technology, while simultaneously making it easier for people to live close to everyday destinations and increasing access to driving alternatives thereby reducing VMT. Trends in historical GHG emissions, along with other indicators demonstrate Colorado is making progress. However, fuel sales are one of the key indicators most reflective of GHG emission trends from the transportation sector, and recent trends highlight that to date, emissions are decreasing slowly.

A key reason is that a significant portion of the on-road vehicles operating in the state still have internal combustion engines, even with increasing trends toward EV ownership as reflected in the EV registration trends data relative to the total LD vehicles on the road. With an average lifespan of 20 years, it will take decades for those combustion vehicles to be replaced by lower-emission technologies. Moreover, if the individual travel demand of Coloradans continues to increase alongside the state's population over the next several decades, it will be critical to find ways to meet this travel demand by shifting trips out of vehicles or decreasing the length of trips through smart land use and transportation planning.

It is important to acknowledge that these strategies are more difficult in rural versus urban areas. Failure to effectively manage growing travel demand in both rural and urban areas will significantly impede Colorado's ability to meet the state's GHG climate goals, hinder the economy, increase congestion and result in poorer air quality outcomes.



As a result Colorado will continue to commit significant time and resources to support strategies to reduce GHG emissions and air pollution from the transportation sector. This will be a continuous, iterative process developing, implementing, and revising strategies based on lessons learned and the changing local and national landscape. Additional strategies will likely be needed. The work completed to date has focused on building the framework and capacity to achieve Colorado's climate goals and notable progress has been made in a couple key areas including:

- Increasing EV infrastructure.
- Adopting vehicle emissions standards to reduce emissions from on-road vehicles.
- Reducing cost barriers to EVs and e-bikes through tax credits and other programs.
- Establishing reliable sources of funding to support rail and transit development.
- Creation of grant funding programs to support local governments to adopt lower emitting vehicles.
- Improving active transportation infrastructure to support alternative modes.
- Reforming land use rules to make it easier to build housing in cities near jobs and other daily destinations.

These continuing efforts will help guide Colorado forward in achieving our affordability, safety, quality of life, climate and clean air goals.

