

BIANNUAL GREENHOUSE GAS EMISSIONS REDUCTIONS IMPLEMENTATION REPORT

Report Pursuant to Executive Order B 2021 01 | December 2022



*A Partnership of the Colorado Energy Office and the
Departments of Agriculture, Natural Resources, Public
Health & Environment, and Transportation*

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Executive Summary

The Governor signed an executive order directing the Executive Directors of the Colorado Energy Office (CEO), Colorado Department of Public Health & Environment (CDPHE), Department of Natural Resources (DNR), Colorado Department of Agriculture (CDA), and Colorado Department of Transportation (CDOT) to submit a report to the Governor twice per year. This is the third update in compliance with the Governor's Executive Order. This report recounts the progress of the specific policy and program implementation of the Greenhouse Gas Pollution Reduction Roadmap, and identifies new opportunities for action since the latest biannual update released in June 2022 and available [here](#). This report covers areas of significant new work since the June report, but does not provide a comprehensive look at every climate-related effort across the state. More information about the Colorado Greenhouse Gas Pollution Reduction Roadmap and previous biannual reports is available [here](#).

Since the last report, State agencies have made significant progress on numerous fronts. While a full summary of actions are included in this report, highlights include:

- On August 3, the Public Utilities Commission (PUC) approved a settlement agreement in Xcel Energy's Clean Energy Plan proceeding to achieve approximately 85% GHG pollution reduction below 2005 levels by 2030, and retire all coal generation by Jan 1, 2031. Xcel will release its request for new energy resources in late 2022 with a final decision approving new resources in fall 2023. By the July 1 deadline, the Air Pollution Control Division verified voluntary CEPs from Holy Cross Energy, Colorado Springs Utilities and Platte River Power Association. Each utility now has a committed plan to achieve at least an 80% reduction in greenhouse gas emissions by 2030, aligned with the Governor's goal of 100% renewable electricity by 2040. Implementation of these plans will be monitored each year to ensure they remain on track.
- As Colorado utilities have locked-in more than 80% renewable electricity by 2030, the administration knows that new technologies hold the promise to achieve 100% renewable energy while ensuring reliable and affordable electricity service. To that end, in July, Governor Polis announced the Heat Beneath Our Feet (HBOF) as his 2023 Western Governors' Association (WGA) Chair [initiative](#). HBOF is a bold initiative aimed at jump-starting the development of geothermal energy generation across the western United States. In addition, CEO is in the midst of developing the [Geothermal Energy Grant Program](#), which will provide grants for the use of geothermal energy in electricity generation and space/water heating and cooling in homes, businesses, and communities. Geothermal energy also holds the promise of utilizing the expertise and skillsets of the West's robust oil and gas sector to directly contribute to renewable energy and renewable heating deployment.
- The first year of the Ozone Season Transit Grant Program, which made transit free for the month of August, increased ridership on public transit for participating agencies, with Colorado Springs' Mountain Metro Transit seeing a 48% increase and RTD seeing a 36% increase over August 2021. The program was created by [SB22-180](#) and provides \$28 million to transit agencies statewide to provide fare free transit service during the 2022 and 2023 summer ozone season (June through August). The program is intended to reduce vehicle pollution during ozone season, and help rebuild transit ridership following the COVID-19 pandemic. In its first year, the program supported RTD and 15 other agencies to offer fare free service during the month of August.

- To further support statewide transit, CDOT will significantly expand Bustang services on its North, South and West lines over the next three years. Initial runs on the Pegasus bus service, which operate as part of Bustang on weekends and holidays in the mountain express lanes of the I-70 corridor, began in May 2022. In September, Bustang and Pegasus services were expanded as part of this program. In the mountain corridor along I-70, Pegasus service was expanded to 7-day-a-week service, leading to a 60% increase in service. The West line Bustang service was increased by 50% by adding an additional trip between Denver and Grand Junction 7 days a week. A 33% service expansion was implemented along North/South Bustang service at this time as well.
- As the State continues to deploy significant funding for EV charging and incentives for consumer adoption of zero-emission vehicles, CEO and CDOT have focused on consumer education to inform Coloradans of the benefits of EVs. [EV CO](#) is a new, statewide electric vehicle education campaign working to raise awareness about EVs for all Coloradans. It highlights the financial and environmental benefits of EVs while showcasing how an EV can fit into the Colorado lifestyle. An advisory committee of approximately 20 representatives from utilities, non-profits, private industry, local governments and other organizations provided valuable input and feedback for the development and launch of EV CO. In its first two weeks the campaign had nearly 9000 unique visitors and had nearly 50 million impressions from earned media.
- Colorado will invest \$57 million to construct electric vehicle (EV) charging stations along major Colorado roads and highways as part of funding available through the federal Bipartisan Infrastructure Law. Colorado agencies received approval from the U.S. Joint Office of Energy and Transportation on the State's inaugural National Electric Vehicle Infrastructure (NEVI) implementation plan. This approval allows Colorado to access its first year of NEVI formula funding for charging stations along our 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.
- The Environmental Justice Action Task Force (EJATF), which was composed of 22 members appointed by the Governor and legislative leadership, submitted its final report of recommendations to the legislature, the Governor, and the CDPHE on November 14, 2022. The recommendations included sections on undertaking environmental equity analyses, creating a unified definition of disproportionately impacted communities, how to use data in reducing environmental and health disparities, and best practices for community engagement. These recommendations are under consideration by the Administration. As part of the Governor's proposed 2023 budget, \$4.5 million has been allocated to continue the State's environmental justice work by ensuring additional funding for the Environmental Justice Advisory Board.
- In November 22, the Air Quality Control Commission adopted a rule establishing recovered methane protocols and a recovered methane crediting and tracking system for the GHG reductions achieved through these projects. The protocols address recovered methane projects related to manure management systems, municipal solid waste/landfills, wastewater treatment, coal mines, and leak reductions in gas utilities' delivery systems. The recovered methane credits will be used by the PUC in their approval of Clean Heat Plans submitted by gas distribution utilities.

Resumen ejecutivo

El gobernador firmó una orden ejecutiva que ordenaba a los directores ejecutivos de la Oficina de Energía de Colorado (CEO), del Departamento de Salud Pública y Medio Ambiente de Colorado (CDPHE), del Departamento de Recursos Naturales (DNR), del Departamento de Agricultura de Colorado (CDA) y del Departamento de Transporte de Colorado (CDOT) que presentaran un informe al gobernador dos veces al año. Esta es la tercera actualización en cumplimiento de la Orden Ejecutiva del Gobernador. Este informe hace un recuento de los avances en la implementación de políticas y programas específicos de la hoja de ruta para la reducción de la contaminación por gases de efecto invernadero e identifica nuevas oportunidades de acción desde la última actualización bianual publicada en junio de 2022 y disponible [aquí](#). Este informe cubre áreas de trabajo nuevas y significativas desde el informe de junio, pero no ofrece una visión integral de todos los esfuerzos relacionados con el clima en todo el estado. Para obtener más información sobre la hoja de ruta de reducción de la contaminación por gases de efecto invernadero de Colorado y los informes semestrales anteriores, haga clic [aquí](#).

Desde el último informe, los organismos estatales han logrado avances significativos en numerosos frentes. Si bien en este informe se incluye un resumen completo de las acciones, las más destacadas incluyen:

- El 3 de agosto, la Comisión de Servicios Públicos (PUC) aprobó un acuerdo de conciliación en el marco del Plan de Energía Limpia de Xcel Energy, para lograr una reducción de aproximadamente un 85% de la contaminación por GEI por debajo de los niveles de 2005 para 2030 y retirar toda la generación de carbón antes del 1 de enero de 2031. Xcel dará a conocer su solicitud de nuevos recursos energéticos a finales de 2022 y una decisión final por la que se aprobarán nuevos recursos en otoño de 2023. Antes de la fecha límite del 1 de julio, la División de Control de la Contaminación del Aire verificó los CEP voluntarios de Holy Cross Energy, Colorado Springs Utilities y Platte River Power Association. Como parte del proceso, cada empresa de servicios públicos ahora tiene un plan comprometido para lograr una reducción de al menos un 80% de las emisiones de gases de efecto invernadero para 2030, en consonancia con la meta del gobernador de lograr un 100% de electricidad renovable para 2040. La implementación de estos planes se supervisará cada año para garantizar que sigan por buen camino.
- Dado que las empresas de servicios públicos de Colorado han garantizado más del 80% de electricidad renovable para 2030, la administración sabe que las nuevas tecnologías prometen alcanzar el 100% de energía renovable al mismo tiempo que garantizan un servicio eléctrico fiable y asequible. Con este fin, en julio, el gobernador Polis anunció la [iniciativa](#) Heat Beneath Our Feet (HBOF) (El calor bajo nuestros pies), que presidirá en 2023 la Asociación de Gobernadores del Oeste (WGA). HBOF es una iniciativa audaz destinada a impulsar el desarrollo de la generación de energía geotérmica en el oeste de Estados Unidos. Además, el CEO está desarrollando el [Programa de Subvenciones a la Energía Geotérmica](#), que concederá subvenciones para el uso de la energía geotérmica en la generación de electricidad y la calefacción y refrigeración de

espacios y agua en hogares, empresas y comunidades. La energía geotérmica también promete utilizar la experiencia y las competencias del poderoso sector del petróleo y el gas de Occidente para contribuir directamente al despliegue de la energía renovable y la calefacción renovable.

- El primer año del Programa de Subsidios de Tránsito de la Temporada de Ozono logró aumentar el número de pasajeros en el transporte público para las agencias participantes: Mountain Metro Transit de Colorado Springs registró un aumento del 48% y RTD un aumento del 36% con respecto a agosto de 2021. El programa fue creado por la [SB22-180](#) y proporciona \$28 millones a las agencias de transporte de todo el estado para ofrecer un servicio de transporte sin tarifas durante la temporada de ozono de verano de 2022 y 2023 (de junio a agosto). El objetivo del programa es reducir la contaminación de los vehículos durante la temporada de ozono y ayudar a recuperar el número de pasajeros del transporte público tras la pandemia de COVID-19. En su primer año, el programa apoyó a RTD y a otras 15 agencias a ofrecer un servicio gratuito durante el mes de agosto.
- Para apoyar aún más el transporte público en todo el estado, el CDOT ha ampliado considerablemente los servicios de Bustang en sus líneas Norte, Sur y Oeste durante los próximos tres años. Los primeros recorridos del servicio de autobuses Pegasus, que funcionan como parte de Bustang los fines de semana y festivos en los carriles exprés de montaña del corredor de la I-70, comenzaron en mayo de 2022. En septiembre, los servicios de Bustang y Pegasus se ampliaron como parte de este programa. En el corredor montañoso a lo largo de la I-70, el servicio de Pegasus se amplió a un servicio de 7 días a la semana, lo que supuso un aumento del 60% en el servicio. El servicio Bustang de la línea oeste se incrementó en un 50% al añadir un viaje adicional entre Denver y Grand Junction los 7 días de la semana. En ese momento también se implementó una expansión del servicio del 33% a lo largo del servicio norte/sur de Bustang.
- A medida que el Estado continúa destinando importantes fondos para la carga de vehículos eléctricos e incentivos para que los consumidores adopten vehículos sin emisiones, el CEO y el CDOT se han centrado en la educación de los consumidores para informar a los habitantes de Colorado sobre los beneficios de los vehículos eléctricos. [EV CO](#) es una nueva campaña estatal de educación sobre vehículos eléctricos que pretende aumentar la concienciación sobre los vehículos eléctricos entre todos los habitantes de Colorado. Destaca los beneficios económicos y medioambientales de los vehículos eléctricos y muestra cómo un vehículo eléctrico puede adaptarse al estilo de vida de Colorado. Un comité asesor compuesto por aproximadamente 20 representantes de empresas de servicios públicos, organizaciones sin fines de lucro, la industria privada, los gobiernos locales y otras organizaciones proporcionó información y comentarios valiosos para el desarrollo y el lanzamiento de EV CO. En sus dos primeras semanas, la campaña tuvo casi 9000 visitantes únicos y casi 50 millones de impresiones procedentes de medios ganados.
- Colorado invertirá \$57 millones para construir estaciones de carga para vehículos eléctricos (EV) a lo largo de las principales carreteras y autopistas de Colorado como parte de los fondos disponibles a través de la Ley federal de infraestructura bipartidista. Las agencias de Colorado recibieron la aprobación de la Oficina Conjunta de Energía y Transporte de Estados Unidos sobre el plan inaugural de implementación de la Infraestructura Nacional de Vehículos Eléctricos (NEVI) del Estado. Esta

aprobación permite a Colorado acceder a su primer año de financiación de la fórmula NEVI para estaciones de carga a lo largo de nuestros 13 corredores de vehículos eléctricos designados por el gobierno federal: I-25, I-70, I-76, I-270, US 34 (parcial), US 36 (parcial), US 40 (parcial), US 50, US 160 (parcial), US 285, US 287 (parcial), US 385 (parcial) y US 550.

- El Grupo de Acción de Justicia Ambiental (EJATF), que estaba compuesto por 22 miembros nombrados por el gobernador y los líderes legislativos, presentó su informe final con recomendaciones a la legislatura, el gobernador y el CDPHE el 14 de noviembre de 2022. Las recomendaciones incluían secciones sobre la realización de análisis de equidad ambiental, la creación de una definición unificada de las comunidades afectadas de manera desproporcionada, cómo utilizar los datos para reducir las disparidades ambientales y de salud y las mejores prácticas para la participación de la comunidad. La Administración está estudiando estas recomendaciones. Como parte del presupuesto propuesto por el gobernador para 2023, se han asignado \$4,5 millones para continuar con la labor de justicia ambiental del Estado, garantizando fondos adicionales para la Junta Asesora de Justicia Ambiental.
- El 22 de noviembre, la Comisión de Control de la Calidad del Aire adoptó una norma que establecía protocolos sobre el metano recuperado y un sistema de acreditación y seguimiento del metano recuperado para las reducciones de GEI logradas a través de estos proyectos. Los protocolos abordan los proyectos de metano recuperado relacionados con los sistemas de gestión de estiércol, los residuos sólidos municipales/vertederos, el tratamiento de aguas residuales, las minas de carbón y la reducción de fugas en los sistemas de suministro de las empresas de gas. La PUC utilizará los créditos de metano recuperado para aprobar los planes de calefacción limpia presentados por las empresas de distribución de gas.

This table highlights near term actions identified in the Greenhouse Gas Pollution Reduction Roadmap that are complete or underway. Additional actions not included in the table are discussed throughout this report. This Near Term Actions list will be updated with priority actions identified over the next year through an update to Greenhouse Gas Pollution Reduction Roadmap.

Table 1. Near-Term Actions Identified in Greenhouse Gas Pollution Reduction Roadmap: Completed or underway actions in Green.

	Fall/Winter 2020	Spring 2021	Summer 2021	Fall 2021	Winter 2021	2022
Public Utility Commission	Tri-State electric resource plan	Xcel Energy electric resource plan & clean energy plan	Xcel renewable energy plan			
	Xcel Energy transportation electrification plan	Black Hills transportation electrification plan	Black Hills Energy efficiency plan			
			Black Hills Energy renewable energy plan			
	Regional haze rules phase 1		Transportation emission rules (GHG standards for transportation plans, moved to Transportation Commission for adoption)	GHG emission reduction progress evaluation Regional haze rules phase 2	Oil and gas emission reduction rules	Next round, transportation emission rules (Advanced Clean Trucks)
Air Quality Control Commission	Ozone Plan	Stakeholder processes for transportation, industrial, oil and gas rules		GHG Emissions and Energy Management for Manufacturing Rule Phase I	Structures/building emission reduction rules (note: 2021 legislation moved this to end of 2022)	GHG Emissions and Energy Management for Manufacturing Rule Phase II
	Oil and gas well monitoring rules					
	Outreach on 2021 oil and gas rules					

Table 1 (cont'd).

	Fall/Winter 2020	Spring 2021	Summer 2021	Fall 2021	Winter 2021	2022
Colorado Oil and Gas Conservation Commission	Mission Change Rulemaking (200-600, 800, 900, 1200 Series)			GHG emission reduction progress evaluation in coordination with CDPHE		Financial Assurance Rulemaking
						Imposing permit fee; and requiring worker certification (these three topics complete mandatory SB19-181 rulemakings.)
						First Cumulative Impacts Report Completed
Other State Agency Actions	Clean trucking strategy initiated	Electric vehicle equity plan initiated	Clean trucking technical analysis completed	Natural and Working Lands Taskforce pathways analysis completed	Draft Natural and Working Lands Taskforce strategic plan completed	Administrative and legislative action items from land use study
	Just transition plan finalized	Convene taskforce on Carbon Capture, Utilization and Storage (CCUS)	Begin smart land use stakeholder process and study	CDOT Transportation Commission GHG Pollution Reduction for Transportation Planning Rulemaking		Administrative and legislative action items from Natural Lands and Working Lands strategic plan
	Draft Climate equity framework completed				Climate equity framework completed	

Table 1 (cont'd).

	Fall/Winter 2020	Spring 2021	Summer 2021	Fall 2021	Winter 2021	2022			
Legislation		<ul style="list-style-type: none">● Fund infrastructure and incentives to transition to low and zero emissions cars, trucks and buses<ul style="list-style-type: none">● Buildings & Gas Utilities<ul style="list-style-type: none">○ Set carbon reduction targets for gas utilities○ Set Biogas requirements for gas utilities○ Require existing large commercial buildings to track energy use and make progress toward energy and pollution performance standards○ Require regulated electric utilities to create programs that support beneficial electrification○ Expand energy efficiency investments from gas utilities● Governor’s Proposed FY 21-22 Budget<ul style="list-style-type: none">○ Fund Clean Energy Finance - \$40 M○ Fund wildfire relief, mitigation and prevention - \$78 M○ Support local government investment in renewables and efficiency - \$5 M○ Create Climate Resilience Office at the CO Department of Agriculture○ Build capacity of Colorado’s Office of Just Transition							

List of Acronyms

Departments/Regulatory Bodies

APCD - Air Pollution Control Division
AQCC - Air Quality Control Commission
CAB - Colorado Aeronautical Board
CDA - Colorado Department of Agriculture
CDOT - Colorado Department of Transportation
CDPHE - Colorado Department of Public Health & Environment
CEO - Colorado Energy Office
COAG - Colorado Attorney General's Office
COGCC - Colorado Oil and Gas Conservation Commission
CPW - Colorado Parks and Wildlife
DNR - Department of Natural Resources
DOLA - Department of Local Affairs
OEDIT - Office of Economic Development and International Trade
OJT - Office of Just Transition
PUC - Public Utilities Commission

Other Terms

BPS - Building Performance Standards
BPC - Building Performance Colorado
CCUS - carbon capture, utilization, and storage
CCEF - Colorado Clean Energy Fund
CEP - Clean Energy Plan
C-PACE - Commercial Property Assessed Clean Energy
DCFC - Direct Current Fast Charge
EV - Electric Vehicle
GHG - Greenhouse Gas
MMT - Million metric tons

SEP - Supplemental Environmental Project

VMT - Vehicle miles traveled

ZEV - Zero-Emission Vehicle (includes Hydrogen Fuel Cell Vehicles and Electric Vehicles)

Electric Utility Sector

Clean Energy Plans and Voluntary Fossil-Plant Retirements

In 2019, the utilities that operate more than 99% of fossil fuel power plants in Colorado committed to meet at least an 80% greenhouse gas (GHG) emissions reduction by 2030. [SB19-236](#) codified that commitment for Xcel Energy and introduced a requirement for the utility to file a Clean Energy Plan (CEP). Under [HB21-1266](#), other utilities were also required to create a CEP. Six of Colorado's largest utilities have submitted CEPs demonstrating that they will meet at least an 80% reduction in GHG emissions from retail sales by 2030 as compared to a 2005 baseline (see figure below). One additional CEP will be submitted in 2023 by CORE Electric. Importantly, the utilities submitting CEPs operate fossil electricity generation units that emit 99% of the sector's GHG emissions within Colorado, and are expected to achieve a roughly 84% reduction in emissions by 2030 for electricity sales in the state from 2005. Progress on clean energy plans are tracked every year.

Clean Energy Progress in Colorado

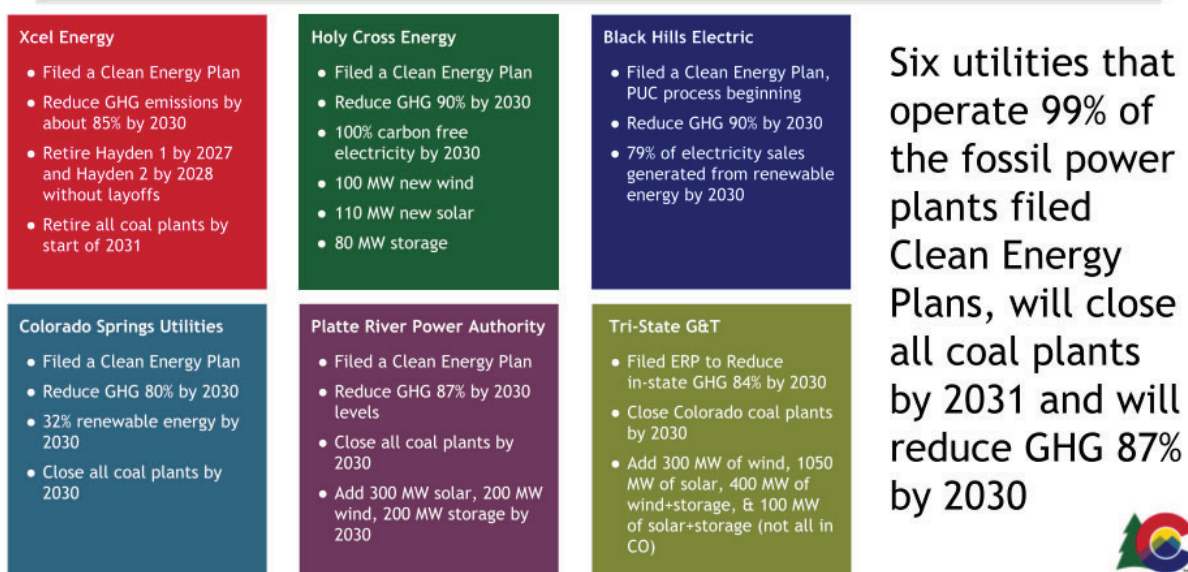


Figure 1. Status of Utility GHG Reduction Plans

Key developments in this area during the second half of 2022 include:

- Black Hills filed its Clean Energy Plan in June. Parties in the proceeding filed testimony in early November, and the PUC is expected to issue a Phase I decision in March 2023.
- On August 3, the Public Utilities Commission (PUC) approved a settlement agreement in Xcel Energy's Clean Energy Plan proceeding. Xcel released its request for new energy resources in late 2022. A final decision from the PUC approving new resources is expected in fall 2023.

- By the July 1 deadline, Holy Cross Energy, Colorado Springs Utilities and Platte River Power Association each had their voluntary CEPs verified by the Air Pollution Control Division (APCD). As part of the process, each utility now has a committed plan to achieve at least an 80% reduction in greenhouse gas emissions by 2030.

Transportation Sector

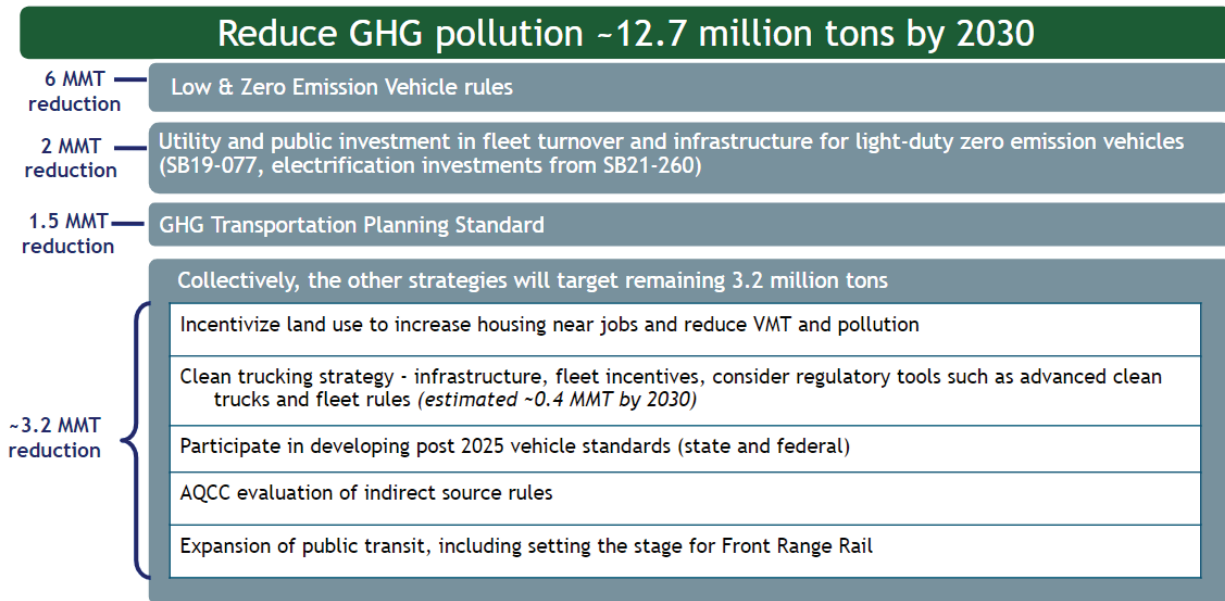


Figure 2. Summary of expected GHG emission reduction by 2030 attributable to various transportation emissions reduction strategies, with a target of 12.7 MMT reduction by 2030

Zero Emission Vehicles

Federal Funds

Colorado agencies received approval from the U.S. Joint Office of Energy and Transportation on the State's inaugural National Electric Vehicle Infrastructure (NEVI) implementation plan. This approval allows Colorado to access the first year of NEVI formula funding for 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.

Charge Ahead Colorado

Charge Ahead Colorado provides grant funding for Level 2 and Direct Current Fast Charge (DCFC) charging stations throughout Colorado via several competitive application processes each year. Each grant covers 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. To date, the program has funded more than 2,000 charging stations statewide.

EV CO Launch

In November, CEO successfully launched [EV CO](#) in partnership with CDOT. EV CO is a new, statewide electric vehicle education campaign that seeks 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. An advisory committee of approximately 20 representatives from utilities, non-profits, private industry, local governments and other organizations provided valuable input and feedback to support EV CO's development.

The campaign was launched with a dynamic website that includes a partner toolkit for statewide EV stakeholders to share EV resources with their audiences and communities. The 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 compelling, market-tested messaging and visuals encouraging people to visit the website to learn more. In its first two weeks, the campaign's website had 14,646 total website page views with 8,297 unique users. In addition there were eight placements by local media, four placements by national/trade media and a total of 47.9M impressions as a result of earned media.

Alt Fuels Colorado Corridor Program

In an effort to enable statewide travel in electric vehicles, the Alt Fuels Colorado Corridor Program is funding DCFC stations at 34 sites along Colorado's major transportation corridors. These sites are being developed in partnership with ChargePoint and the site hosts, such as local governments, utilities, and private companies. As of fall 2022, 27 of the 34 sites are open to the public. An additional four sites will be open by the end of 2022. The remaining sites will be completed by the end of 2023.



Image Caption: A white electric vehicle charges on a clear day at the Dinosaur Welcome Center in Dinosaur, Colorado. The charging stations at this location along the Colorado and Utah border were funded by the Alt Fuels Colorado Corridor Program.

Clean Truck Strategy, Advanced Clean Truck Rule, and Low NOx Omnibus Rule

The Colorado Clean Truck strategy was published in May 2022. It includes targets and 35 prioritized strategies for agencies to pursue in the near and medium term, and recommendations for leveraging the nearly \$1 billion in potential funding for clean trucks and buses coming from SB21-260, federal infrastructure funds, Governor’s budget, and other sources. Agencies have been making progress on implementing the near term actions, with a goal of completing 95% of the near term actions by June 30, 2023. One key action is the rulemaking for the Advanced Clean Trucks (ACT) and Low NOx Omnibus rules at the Air Quality Control Commission (AQCC), to be initiated by the end of 2022.

Expansion of travel choices for Coloradans to help reduce traffic

Greenhouse Gas Pollution Reduction Planning Standards

On December 16, 2021, the Transportation Commission approved new GHG Planning Standards to reduce GHG emissions from the transportation sector, improve air quality and reduce smog, and provide more travel options. This standard, which became effective on January 31, 2022, focuses on transportation planning – the process for how CDOT and the state’s largest metropolitan regions select future transportation projects. Long before a transportation project is built, it is first identified in plans developed with local public input. These plans often include a decade or more of projects, and thus represent a short- and medium-term vision for the state’s transportation system.

The GHG Pollution Reduction Planning Standards (the GHG Rule) requires CDOT and the state’s five Metropolitan Planning Organizations (MPOs) to determine the total GHG emissions

expected from future transportation projects, and take steps to ensure that plans achieve set GHG emissions reductions targets. In addition to reducing GHG emissions, this Rule is expected to improve quality of life and air quality across Colorado by facilitating travel choices that promote active transportation, such as adding sidewalks, building “complete streets,” increasing transit and implementing other improvements that facilitate active transportation options.

On May 19, 2022 the Transportation Commission approved [Policy Directive 1610 - GHG Mitigation Measures](#), which quantifies almost 50 types of projects that reduce GHG emissions, including bike/pedestrian, transit, land use, and transportation demand management. This Policy Directive, although voluntary, is designed to help CDOT and MPOs reach the GHG emissions reductions outlined in the Rule by providing optional mitigations that can be used if an agency’s transportation plan is otherwise unable to meet the Rule’s compliance levels. CDOT, the Denver Regional Council of Governments, and North Front Range Metropolitan Planning Organizations all updated their plans to comply with the new Rule by the October 1, 2022 deadline.

Bustang

Bustang, which began operating in 2015, is CDOT’s interregional bus service that connects urban and rural areas across the State.

Signed into law in June 2022, [SB22-180](#) allows CDOT to significantly expand Bustang services on its North, South and West lines over the next three years. Initial runs on the Pegasus bus service, which operates as part of Bustang on weekends and holidays in the mountain express lanes of I-70, began in May 2022. In September 2022, CDOT expanded Bustang and Pegasus services. Pegasus service along the I-70 mountain corridor was expanded to 7 days a week — a 60% increase in service. The West line Bustang service increased 50% by adding an additional trip between Denver and Grand Junction 7 days a week. A 33% service expansion was also implemented along North/South Bustang service.

Other transit expansions implemented in 2022 include a Bustang Outrider service between Sterling and Greeley, and Sterling and Denver; and the 2022-2023 Breckenridge Snowstang service between the Denver Metro Area and A-Basin, Copper Mountain, Steamboat Springs, and Loveland ski resorts.



Figure 4. A map of Bustang services across Colorado; the route from Trinidad to Pueblo will begin service in early 2023

Ozone Season Transit Grant Program

[SB22-180](#) created the Ozone Season Transit Grant Program, which provides \$28 million to transit agencies statewide to provide fare free transit service during the 2022 and 2023 summer ozone season (June through August). The program is intended to reduce vehicle pollution during ozone season, and help rebuild transit ridership following the COVID-19 pandemic. In its first year, the program supported RTD and 15 other agencies to offer fare free service during the month of August. Ridership increased significantly for participating agencies, including Colorado Springs' Mountain Metro Transit with a 48% increase and RTD with a 36% increase over August 2021.

Land Use Strategies

Land Use Stakeholder Group and Research Report

In 2021, as directed by the GHG Roadmap, an interagency group composed of CDOT, CEO, DOLA, CDPHE, and DNR convened the Land Use Stakeholder Group to develop a partnership between state and local entities that "incentivizes smart land use decisions." This group of state agencies and local government representatives released a [research report](#) in July 2022. The report details common land use challenges and desired outcomes for local Colorado communities, and outlines potential land use strategies to reduce GHG emissions and achieve other important co-benefits, such as housing affordability and lower infrastructure costs. As part of the research paper release, the interagency group hosted webinars with interested stakeholders.

Strong Communities grant program (HB22-1304)

The [Strong Communities Grant Program](#), which was created by [HB22-1304](#) and signed into law in June 2022, is a \$40 million program that will be administered by DOLA with support from CEO and CDOT. It will be a competitive grant program for infill infrastructure investments that support affordable housing. The grant criteria will consider the extent to which local governments are reforming zoning and planning rules to allow and encourage more housing within communities; near jobs, transit, and schools. Not only will this catalyze more housing, but it will also have multiple other benefits— less time spent commuting, lower GHG pollution from driving, and greater cost savings for residents. In fall 2022, DOLA released an RFP to select a technical assistance consultant to support the program, and expects to launch the program in early calendar year 2023.

HB21-1271 and HB21-1117

In 2021, the passage of [HB21-1271](#) and [HB21-1117](#) created incentive programs for local zoning and planning reform. HB21-1271 created the [Innovative Affordable Housing Strategies](#) program at DOLA, which provides grants to local governments for adopting land use best practices that allow and encourage affordable housing development. Local governments that adopt at least three policy and regulatory tools from a menu of options are eligible to compete for affordable housing development funds. HB21-1117 enables and clarifies local governments' ability to enact inclusionary zoning laws that support the construction of new affordable housing. Since November 2021, the planning program has awarded approximately \$5.4 million to 63 local governments that are changing 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 prioritize projects that demonstrate sustainable development patterns (e.g., infill to reduce Vehicle Miles Traveled or VMT) and award bonus points to projects that incorporate energy efficiency and renewable energy components. The program is currently reviewing 54 letters of intent to apply to its final funding round, which requested \$93 million in aggregate. The program will award its remaining \$19 million in Q1 2023.

Land Use and Housing Reform

State agencies have begun working with stakeholders to develop plans for state land use reform to remove restrictions that prevent attainable housing types in infill areas, particularly near transit and job centers. These reforms will aim to enable the state to grow in a sustainable and equitable way, and address several benefits, including addressing the growing affordable housing crisis, reducing vehicle miles traveled and transportation emissions, and reducing water use. In 2022, CEO initiated a housing policy scenarios study to understand the relative benefits of different potential land use reform measures.

Aviation: Colorado Aeronautical Board and Colorado Department of Transportation Division of Aeronautics

Alternatively Powered Aircraft Infrastructure Study

As of November 2022, the Division is in final contracting with the National Renewable Energy Lab (NREL) for a study on Alternatively Powered Aircraft. Specifically, this study will explore new aviation propulsive technologies and aircraft, and the benefits they will provide for cleaner, more efficient, and more accessible aviation mobility statewide. The study will also explore how CDOT's Division of Aeronautics can help prepare the state's system of 66

publicly-owned airports for these aircraft, which are expected to enter service in the next 10 to 20 years. This is expected to be an approximately 18 month effort.

Alternative Aircraft Fuels

Globally, the aviation industry is responsible for 2.5% of all greenhouse gas emissions. However, that share could increase significantly, as aviation activity worldwide is forecast to increase. Recognizing this likely growth, the aviation industry is taking steps to reduce its global impact. These actions include refining aircraft and powerplant design, and spurring extensive progress on new propulsive technologies, including the development of sustainable aviation fuels (SAF) such as those manufactured from renewable biomass waste or synthetic processes. Other developing technologies include battery-electric, hybrid, and hydrogen fuel cell-powered aircraft—all of which could move the industry toward its broadly stated goal of being carbon neutral by 2050.

Notably, as of November 2022, SAF is available at only three of Colorado’s 57 public use airports where fuel is sold: Telluride Regional Airport, Aspen/Pitkin County Airport, and Eagle County Regional Airport. As SAF demand and production increase and availability improves, the 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.

Residential, Commercial and Industrial Fuel Use

Oil and Gas Fuel Combustion Equipment

Fuel combustion equipment at upstream and midstream oil and gas operations is included in the industrial fuel use category.

Midstream oil and gas operations

Adopted by the AQCC in December 2021, [Regulation No. 22](#), Part B, Section III establishes the Midstream Steering Committee (MSC). This is a technical working group tasked with developing guidance and plans to achieve statewide reductions in GHG emissions from fuel combustion equipment in the oil and gas midstream segment. The MSC’s work, pursuant to [HB21-1266](#), aims to ensure that the state meets its GHG reduction targets for the industrial sector in the GHG Roadmap.

Some of the required midstream segment-wide GHG reductions are anticipated to come from the electrification of existing fuel combustion equipment (such as natural gas-fired compressor engines or heaters). In summer 2022, the MSC completed an information collection effort, gathering valuable information about topics such as existing midstream fuel combustion equipment, electric capacity and demands, and midstream operations in disproportionately impacted communities.

By the end of 2022, the MSC will publish a draft guidance document for a public comment period. The final guidance document, to be published by the end of March 2023, will assist midstream operators in preparing their company-specific emission reduction plans due in September 2023. The MSC will then use these emission reduction plans to develop a midstream segment emission reduction plan, which the Air Pollution Control Division will use

to inform a regulatory proposal that it will present to the AQCC in 2024. That midstream segment emission reduction plan prioritizes GHG emission reductions with co-benefits (i.e., hazardous air pollutant and criteria pollutant reductions) in disproportionately impacted communities.

Clean Heat, Gas Utility Demand Side Management and Recovered Methane

[SB21-264](#) requires investor-owned electric utilities to file plans with the PUC to provide rebates and incentives to help customers shift from fossil gas appliances to high efficiency electric appliances. The law also requires that gas distribution utilities submit comprehensive clean heat plans with the PUC. Each clean heat plan must outline the utility's proposal to reduce GHG emission levels by 4% in 2025 and 22% in 2030 below 2015 levels. The Air Pollution Control Division expects that the oil and gas transmission and storage performance program adopted by the AQCC in 2019 and the clean heat plans required by SB21-264 will help achieve necessary emission reductions from these segments that will be critical to achieve the goals of § 25-7-105(1)(e)(XII), C.R.S.

SB21-264 also directs the AQCC to propose rules concerning recovered methane protocols no later than September 1, 2022, and to adopt the rules no later than February 1, 2023. The Air Pollution Control Division established a Recovered Methane Protocols workgroup that held regular public meetings from January 2022 - June 2022 to develop recommended recovered methane protocols for the rule proposal. The Air Pollution Control Division proposed a rule establishing recovered methane protocols to the AQCC in July 2022, and the rule was adopted by the AQCC in November 2022. The protocols address recovered methane projects in the areas of manure management systems, municipal solid waste/landfills, wastewater treatment, coal mines, and leak reductions in gas utilities' delivery systems. The rule also establishes a recovered methane crediting and tracking system for the GHG reductions achieved through these projects.

On December 1, 2022, the Colorado Public Utilities Commission adopted new rules for gas utilities that are at the forefront of the evolution of the gas utility industry by requiring gas utilities to file infrastructure and clean heat plans that will help gas utilities transition the businesses and the services they provide to their customers to better align with state's greenhouse gas emissions reduction targets.

Commercial Building Benchmarking and Performance Standards

As a result of HB21-1286, CEO developed a statewide benchmarking program called Building Performance Colorado, which requires commercial, multifamily, and public buildings 50,000 square feet or more to report their annual energy use and pay a \$100 fee per covered building (public buildings are exempt from the fee). Building owners were required to report their 2021 energy use data by December 1, 2022, and are required to report their subsequent years' energy data on or before June 1 of each following year. The goal of the benchmarking program is to help building owners and tenants better understand how their building's energy performance compares to similar buildings, and identify opportunities to reduce energy waste. CEO is coordinating with municipalities that already have or want to enact benchmarking ordinances in order to help streamline the reporting process and reduce the burden on building owners.

The Task Force, which was established by HB21-1286 to develop recommendations for building performance standards (BPS), met monthly from September 2021 through September

2022. The group brought together 18 members who represented diverse interests from across Colorado and the building sector in order to devise a plan to achieve GHG emission reduction targets for covered buildings of 7% by 2026 and 20% by 2030, from a 2021 energy data baseline. These GHG emissions reductions are to be collectively met by all buildings covered by this statute (referred to as ‘covered buildings’ or ‘sector’).

On October 1, 2022, CEO’s Executive Director fulfilled the statutory requirements and delivered the Task’s Force’s recommendations to the Governor, General Assembly, and AQCC. The AQCC will review the recommendations, receive public comment, and provide more detailed rules for the BPS through a rulemaking process. The final BPS rules will be published by June 2023.

Building Codes

CEO worked closely with a wide variety of stakeholders and legislative sponsors to craft [HB 22-1362](#), Building Greenhouse Gas Emissions. This legislation creates a new Energy Code Board, charged with establishing new minimum requirements for local building energy codes. The executive directors of CEO and DOLA appointed the energy code board members, who represent diverse interests and perspectives from across the state. The board has thus far held two meetings to begin discussing solar ready, electric ready, and EV ready provisions to include in the pre-wiring code.

Industrial and Manufacturing (GEMM II)

[HB21-1266](#), which set the GHG roadmap sectoral target for the industrial sector into statute, requires that the AQCC adopt rules that will achieve a 20% reduction across the industrial sector as a whole by 2030 relative to 2015 levels. In order to achieve this, specific industrial and manufacturing facilities will be subject to reduction requirements in a second phase GHG Emissions and Energy Management for Manufacturers (GEMM) rulemaking. These requirements are currently being developed through an intensive stakeholder input process, with an initial draft rule planned for public release in early 2023, and the final proposal submitted to the AQCC in September 2023. The first phase of the GEMM rulemaking, which was completed in October 2021, regulated GHG emissions from the four most energy-intensive, trade-exposed manufacturing facilities in Colorado. The GEMM I rule required these facilities to perform a GHG best available emissions control technology and energy best management practices external audit, and to reduce their emissions by 5%. The final audit reports are due to the Division by the end of 2022.

Oil and Gas

Implementation of SB19-181 & Minimizing Sector Emissions

In June 2022, the COGCC completed the rulemaking process for the Orphan Well Mitigation Fee Enterprise Fund created by SB22-198, as a follow up to the Financial Assurance Rulemaking, with rules becoming effective July 30, 2022. The Commission established a fee paid by industry that is initially expected to generate \$10 million annually for the Enterprise Fund to address orphan wells. The fee will be revisited annually, allowing the funding to increase or decrease depending on the needs and anticipated scale of future orphan well work. The Orphan Wells Mitigation Enterprise Board oversees the fund, and was appointed by Governor Polis in August 2022.

The Enterprise Fund is in addition to the \$10-15 million from the Federal Infrastructure and Jobs Act (IIJA) that Colorado expects to spend annually for the next eight years. Together, the federal funds and the orphan well enterprise funds will likely total to an unprecedented \$100-115 million over the next five years. Larger operators (50 or more wells) submitted their first set of Financial Assurance Plans to COGCC by November 1, 2022, and demonstrated high levels of compliance. Smaller operators (10-50 wells) submitted their Financial Assurance Plans by December 1, 2022. The smallest operators (10 or fewer wells) will submit Financial Assurance plans by February 1, 2023. In 2023 Q1 the COGCC will begin Commission Hearings on Financial Assurance Plans to the extent necessary, and staff will continually review plans going forward.

Intensity Verification

The AQCC will also continue its adoption of regulations to address GHGs from oil and gas. The intensity verification rule is on the AQCC's calendar to be proposed in April 2023, with a hearing in July 2023. The intensity verification rule will be part of the previously adopted GHG intensity rules that address methane and carbon dioxide emissions from oil and gas equipment. That program includes production of oil and natural gas from upstream operations, with the targets becoming more stringent over time and taking into account the likely increased production from 2022 through 2030. As part of the implementation of the intensity targets, the verification rule will ensure progress toward the state's GHG reduction goals.

Natural and Working Lands

Natural and Working Lands Greenhouse Gas Inventory and Strategic Plan

In 2021, the interagency Natural and Working Lands (NWL) Taskforce hosted a series of virtual public listening sessions to understand stakeholder priorities on climate-smart land management strategies. State staff integrated this feedback into a draft Strategic Plan which was released for public comment in November 2022 and will be completed early in 2023. The Strategic Plan highlights administrative and legislative priorities on natural climate solutions for the next two to five years, and makes the crucial point that, due to Colorado's dry climate and high wildfire risk, carbon sequestration on natural and working lands is unlikely to play a large role in reducing Colorado's net emissions long term. Finally, in partnership with the Nature Conservancy, the taskforce is nearing completion of a technical analysis of future pathways for NWL GHG emissions and carbon sequestration in Colorado and New Mexico. The U.S. Climate Alliance initially funded this study in 2020, and results are also expected to be published by early 2023.

Soil Health Program- Saving Tomorrow's Agricultural Resources

Now starting its second year of the Saving Tomorrow's Agricultural Resources (STAR) Program, the Colorado Department of Agriculture continues to incentivize farmers and ranchers to implement healthy soil practices. The STAR program includes financial incentives, technical assistance, opportunities for peer-to-peer learning, and access to new market opportunities.

The STAR Program also increases the capacity of conservation districts and other eligible entities to provide technical and financial assistance to farmers and ranchers in their region. CDA was awarded \$25 million dollars through USDA's Partnerships for Climate Smart

Commodities program. This new funding will 1) expand the STAR program across the State, including enrolling more than 400 new farmers and ranchers, 2) support research around the carbon and water benefits of healthy soil practices in Colorado and 7 partner western states, 3) create a market for climate-smart commodities in Colorado by working with supply chain partners, and 4) work to expand the STAR program into a national program. This funding was announced in September 2022, and work will begin in 2023.

ACRE3

The Advancing Colorado's Renewable Energy and Energy Efficiency Program, or ACRE3 for short, provides funding and technical assistance to producers and agricultural businesses to implement renewable energy and increase efficiency in their agricultural operations. From 2015 through 2022, the ACRE3 program has provided assistance for 177 projects in 26 counties, representing \$10 million in total project costs. These numbers include 37 projects that were installed in 2022 and 7 projects due to be completed by June 2023, with the assistance of \$3 million in ACRE3 grants from [SB21-235](#). With future funding appropriations, the ACRE3 program anticipates funding new demonstration projects in 2024 and beyond, including transpired solar at poultry houses, and manure management systems at dairies to support more efficient production of renewable natural gas at several new biodigesters.

Other Sectors

Geothermal Development

In July, Governor Polis announced Heat Beneath Our Feet (HBOF) as his 2023 Western Governors' Association (WGA) Chair [initiative](#) at the Western Governors' Association meeting. HBOF is a bold initiative aimed at jump-starting the development of geothermal energy generation in the region.

In addition, CEO is in the midst of creating a geothermal grant program and developing customer education materials, as directed by [HB22-1381](#) and [SB22-118](#). The Geothermal Energy Grant Program will provide grants to support the use of geothermal energy for electricity generation and space/water heating and cooling in homes, businesses, and communities. CEO is also assembling a Colorado Geothermal Advisory Group to advance development of geothermal for electricity generation and building heating and cooling, and will seek other opportunities to extend and expand the HBOF initiative and related activities.

Carbon Capture, Utilization, and Storage

As part of the near-term actions in the GHG Pollution Reduction Roadmap, Colorado created a task force to better understand the role that carbon capture, utilization, and storage (CCUS) may play in meeting the state's emissions targets. The CCUS Task Force launched in March 2021 and reviewed existing initiatives and recent publications that analyze or identify carbon capture, transport, utilization, and storage opportunities in Colorado. These recommendations were provided to the Governor on February 1, 2022. Pursuant to HB 21-1266, Governor Polis requested that the Environmental Justice Advisory Board review and provide input into CCUS strategies. CEO presented on the CCUS Environmental Justice Recommendations to the Environmental Justice Advisory Board meetings in April, July, and October, and at CCUS subcommittee meetings in June and September. The advisory board

provided final comments on the recommendations on October 27. These recommendations were provided to the Governor, all CCUS taskforce members, and publicly posted on the [taskforce site](#).

Hydrogen

Hydrogen Hubs MOU

In February 2022, the states of Colorado, New Mexico, Utah, and Wyoming signed a Memorandum of Understanding (MOU) to coordinate, develop, and manage a regional clean hydrogen hub. Named the Western Inter-States Hydrogen Hub (WISHH), this consortium is working to compete for a portion of the \$8 billion allocated in the 2021 Infrastructure Investment and Jobs Act to develop four or more regional hydrogen hubs. WISHH contracted with a Prime Contractor in October 2022, and through this collaboration, submitted a [concept paper](#) to the U.S. Department of Energy (DOE) in November 2022. The four-state coalition is working on the full proposal, due on April 7, 2023. For Colorado, the initial concept focuses 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 will 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 potentially manufacturing and industrial facilities, heavy-duty trucks, transit buses, aviation, and others.

Environmental Justice Act

On July 2, 2021, Governor Polis signed the Environmental Justice Act (HB21-1266) into law. The Environmental Justice Act commits to strengthening environmental justice, and prioritizes reducing environmental health disparities in disproportionately impacted communities. It also includes climate-related provisions. To support implementation of the Environmental Justice Act, CDPHE created a new Environmental Justice Program (EJP). As of November 1, 2022, the EJP consists of seven full-time employees, and is slated for continued expansion.

Specific updates on CDPHE's implementation of the Environmental Justice Act include:

- **Identifying and Mapping Disproportionately Impacted Communities**
 - In June 2022, CDPHE launched a new interactive environmental justice mapping tool, [Colorado EnviroScreen](#), which shows areas that meet the definition of disproportionately impacted community, and more generally identifies areas with environmental health burdens and cumulative impacts.
 - The EJP is developing specialized GIS and other data visualization tools for use by the Air Pollution Control Division and PUC, and working in partnership with CEO and CDOT to incorporate geospatial data on environmental justice and cumulative impacts into each agency's climate related decision making processes.
- **Environmental Justice Advisory Board**
 - In April 2022, the Advisory Board fielded a policy question on CCUS from the Governor's Office. As discussed above, it provided a final response to this

request on October 27, 2022.

- On November 21, the Advisory Board launched a new environmental justice (EJ) grant program.
 - The EJ Grant Program can fund projects that avoid, minimize, mitigate, or measure adverse environmental impacts in disproportionately impacted communities, and promote equitable participation in rulemaking or permitting actions by disproportionately impacted community members.
 - Projects must be located in a disproportionately impacted community, as defined under the demographic prongs of the statutory definition or in a census block group that has a Colorado EnviroScreen score greater than 80th percentile under the cumulative impacts prong of the definition.
 - Eligible entities include non-profit organizations, local governments, federally-recognized Tribal governments, universities or other educational institutions, for-profit corporations, and grassroots organizations.
 - The EJP worked with the Advisory Board to release the Request for Applications (RFA) for the first ever EJ Grant Program cycle on November 21. Applications are due on February 3.
 - The EJ Grant opportunity will be the first CDPHE grant translated into Spanish, and will accept applications in English or Spanish.
 - The Advisory Board anticipates awarding 6 to 10 grants for projects between \$50,000 and \$250,000, for a total of \$1 million in funding.
- **Environmental Justice Action Task Force**
 - The Environmental Justice Action Task Force (“EJATF”) was composed of 22 members appointed by the Governor and legislative leadership. It met from December 2021 through November 2022 and held seven full meetings, including hybrid meetings with in-person components in Commerce City, Grand Junction, Greeley, and Pueblo. All Task Force meetings were open to the public, offered simultaneous Spanish interpretation, and provided opportunities for public comment.
 - The Task Force also had six subcommittees that met approximately monthly for a total of 33 meetings to focus on specific topics.
 - The Task Force submitted its [final report of recommendations](#) to the legislature, the Governor, and CDPHE on November 14, 2022. Highlights of the recommendations include:
 - **Environmental Equity & Cumulative Impacts Analyses (EECIA):** recommending a process to create centralized EECIA for specific disproportionately impacted communities (DI); the content to include in the EECIA, such as a cumulative impacts analysis; and the agencies that should implement the EECIA in specific types of agency actions
 - **Definition of Disproportionately Impacted Community:** making targeted wording changes to the definition to improve clarity and correct drafting errors.
 - **Data & Reducing Environmental and Health Disparities:** setting measurable goals to reduce environmental health disparities in DI communities; expanding the use of participatory science to close data

gaps; continuing to improve Colorado EnviroScreen; increasing transparency of complaint data; and improving data sharing, quality, and collection and modernization

- **Best Practices for Community Engagement:** changing the approach currently found in the EJ Act by applying it to more agencies, while increasing flexibility on which standards are applied and which types of actions most effectively prioritize engagement resources, and updating the best practices for community engagement listed in the EJ Act
 - **Indigenous Community Engagement:** recommending best practices for engaging with Indigenous communities throughout Colorado and improving Tribal Consultation with Tribal governments on environmental matters
 - **Supplemental Environmental Projects:** expanding public communications about SEPs, ensuring that enforcement penalty revenue benefits disproportionately impacted communities, simplifying requirements for community members participating in SEP selection processes, and simplifying SEP applications.
- **Environmental Justice Ombudsperson:**
 - Throughout 2022, the Environmental Justice Ombudsperson has responded to inquiries directed to the EJP by meeting directly with community members, conducting site visits, and working with CDPHE subject matter experts to identify potential enforcement and compliance solutions to the situation where possible. The Ombudsperson will formally launch a public complaint system in early 2023.
 - **Environmental Justice in Enforcement and Compliance**
 - In March 2022, CDPHE [signed a memorandum of understanding \(MOU\)](#) with EPA Region 8, committing to a partnership to prioritize environmental justice in enforcement and compliance.
 - CDPHE and EPA Region 8 released a [draft workplan](#) for implementing the MOU for a 60 day public comment period on September 23, 2022. The workplan includes:
 - Strategic targeting of inspections in disproportionately impacted communities;
 - Coordinated enforcement and compliance assurance actions to address impacts on disproportionately impacted community; and
 - Enhanced community engagement.
 - CDPHE and EPA will review public comments and finalize the MOU in late 2022, and begin implementing it in 2023.

Just Transition For Communities and Workers Impacted by Coal Transition

Created in 2019, the Colorado Office of Just Transition (OJT) supports Colorado communities and workers that are transitioning away from coal as an economic driver as it is phased out as a fuel for electricity generation in the state. OJT developed an Action Plan in 2020 and began implementation efforts in 2021. Legislation in 2021 and 2022 (HB21-1290, HB22-1193, and

HB22-1394) allocated a total of \$30 million for OJT to use to assist communities and workers between now and 2027. HB21-1312 also provided a dedicated funding source for OJT based on changes to state severance taxes that will be phased in over the next several years (OJT estimates this will generate a little over \$2 million per year when fully phased in 2026).

In Calendar Year 2022, significant OJT activities included:

- Approving 15 community grants totaling more than \$5 million (and executing contracts on at least 11 of those grants). Recipients include NW Colorado Development Council; Uncompahgre Development Company; West End Economic Development Corporation (2); Moffat and Morgan counties; and the municipalities of Hayden, Meeker (2), Naturita, Norwood, Nucla, Pueblo, Rangely, and Yampa
- Participating in the Public Service Company (PSCo) and Tri-State Generation and Transmission Association proceedings at the PUC, which resulted in a significant financial commitment from PSCo to transition communities, and facilitated a community assistance planning effort with Tri-State
- Laying the groundwork for large investor workshops for transition communities, beginning with the West End of Montrose County and communities in the Yampa Valley
- Continued outreach and planning for the workforce transition program, with the goal of having a final plan approved and ready for implementation by the end of FY23.

Looking forward, OJT is coordinating with the Office of Economic Development and International Trade (OEDIT) on a new round of grants for transition communities totaling over \$10 million. This is based on allocations made to OJT in HB22-1394 and to OEDIT in the FY23 Long Bill. This round of grants should launch in January 2023.

Economic Development and International Trade

The Office of Economic Development and International Trade has spearheaded a number of initiatives on climate and clean energy. Recent progress in this area include:

- **Fortescue recruitment:** In September 2022, Fortescue Future Industries announced they will be making Colorado the home of their R&D hub for their company to produce green hydrogen. This decision will bring hundreds of advanced-industry jobs to Colorado through their headquarters and through their partnership agreement with NREL.
- **GLO Park:** In Fall 2022, the State signed an agreement with the Department of Energy for a land swap to acquire land to build the Global Energy Park next to NREL in Golden. It also signed a developer agreement with NexCore to construct more than 400,000 ft² of specialized lab space for companies around the world to collaborate on innovation in clean, renewable, equitable, and sustainable energy.
- **Finland MOU:** In February 2022, Governor Polis signed a Memorandum of Understanding with Mikko Hautala, Finland's Ambassador to the United States. This agreement focuses on creating collaborative opportunities regarding bilateral foreign direct investment, bilateral research and development projects, and company exchanges and expansion opportunities, with a focus on green economy.

- **Lower Austria MOU:** In May 2022, Lieutenant Governor Primavera signed an agreement with Lower Austria's Governor Johanna Mikl-Leitner. This MoU is intended to deepen cultural ties and encourage scientific and technological collaboration that prioritizes climate protection and the sustainable use of resources.
- **Green Expo Trade Show in Mexico City:** The Green Expo is Latin America's premier event for cutting-edge, sustainable solutions and technologies in a growing number of markets. The expo brings together companies, environmental experts, government representatives and other experts from different industries to highlight its commitment to and exchange information about environmental technology, and develop new solutions for environmental technology. In September, OEDIT helped four companies attend the trade show through the State Trade Expansion Program to assist in their efforts to expand internationally: Geotech, IX Power Clean Water, Ensign Consulting, and GrassTB. Two Global Business Development division staff also attended the Trade Show.
- **Green Energy Summit:** In November, OEDIT participated in the U.S. Embassy and Business France's joint one-day Green Energy Summit in Washington, D.C., which brought together key government and business leaders from the United States, France, and Europe who actively support global climate change efforts. Colorado representatives were joined by Baptiste from Easy Mile, a French company that chose Colorado for their U.S. Headquarters, to represent clean energy initiatives in the State and highlight the innovative work that our companies and government are doing to create a greener economy.