



**COLORADO**  
Energy Office

[\(/\)](#)

[Home \(/\)](#)

Colorado approves nation-leading rule to cut greenhouse gas emissions by shifting how it plans the state's transportation system

# Colorado approves nation-leading rule to cut greenhouse gas emissions by shifting how it plans the state's transportation system

- *By Kelly Blynn, Transportation Climate Change Specialist, Colorado Energy Office*

[12/16/21] Today, the Transportation Commission of Colorado approved a [nation-leading rule](https://www.codot.gov/programs/environmental/greenhousegas) (<https://www.codot.gov/programs/environmental/greenhousegas>) that will help steer transportation planning towards investments that help the state meet its ambitious climate change goals and achieve numerous co-benefits for Coloradans, including less time spent in traffic, more travel options, fewer roadway injuries and fatalities and lower transportation costs.

### How this rule works

In August, the



Transportation Commission proposed new transportation pollution reduction planning standards that will amend how transportation planning works in the state, or how the Colorado Department of Transportation (CDOT) and the state's five largest metropolitan regions identify future transportation projects to invest in. CDOT and the [state's five metropolitan planning organizations \(MPOs\)](http://www.codot.gov/programs/planning/planning-programs/mpo-rural-planning.html) (<http://www.codot.gov/programs/planning/planning-programs/mpo-rural-planning.html>) regularly develop near and long-term plans that detail which transportation projects will receive identified federal, state and local funding.

Under the new rule, CDOT and the five MPOs will have to estimate the total greenhouse gas (GHG) emissions expected from the transportation projects in their plans, and ensure that their approved plans do not exceed GHG reduction amounts specified for each region. They can meet the required

## Recent

[Governor's budget proposes transformational investments in clean air and climate action \(/blog-posts/governors-budget-proposes-transformational-investments-in-clean-air-and-climate-action\)](#)

[BLOG POST] Governor Polis has proposed over half a billion dollars of one time investments in air quality and climate action—CEO Executive Director Will Toor walks us through

reduction levels either by reprioritizing projects or investing in additional measures that reduce GHG emissions, also known as mitigations. If the reduction levels aren't met, some transportation funding streams would be restricted. What all this will likely mean in practice is greater investments in projects that improve quality of life and air quality for Coloradans, such as adding sidewalks and protected bike facilities, improving local and intercity transit, and supporting compact and walkable land use.

### Why this rule matters

Transportation is now the largest contributor to the state's GHG emissions, representing nearly a quarter of GHG emissions. The state's [Greenhouse Gas Pollution Reduction Roadmap](#) (<https://energyoffice.colorado.gov/climate-energy/ghg-pollution-reduction-roadmap>) identifies several near-term actions to reduce transportation emissions, which focus on accelerating adoption of electric vehicles as well as increasing the use of sustainable travel modes like biking, walking, and transit. But transportation is a notoriously difficult sector to reduce emissions from. The Roadmap calls for 12.7 million tons of reduction in annual transportation emissions by 2030 and current strategies focused on vehicle electrification are expected to achieve 8 million tons; the state is still working to identify ways to reduce GHG emissions by an additional 4.7 million metric tons (MMT). This rule is critical because it sets a total reduction level of 1.5 MMT by 2030, filling a significant portion of that gap, which will also be filled by efforts like the state's Clean Truck Strategy, post-model year 2025 light duty vehicle standards, strategies to support more compact land use, and more.

CDOT conducted extensive public engagement for this rule, including 11 public hearings held across the state and virtually this fall with simultaneous Spanish translation, five joint state listening sessions with the Colorado Department of Public Health and Environment, and over 60 smaller meetings with stakeholders. Between the hearings and written testimony, the broad and diverse support for the rule included local government leaders from rural and urban communities around the state, environmental groups, community organizations, medical professionals, business associations, and many individual residents.

In addition to the climate benefits of the rule, many supporters also cited the major economic and societal benefits the rule is estimated to bring to Coloradans. While CDOT and the MPOs can comply with the rules in a variety of ways, the [Cost-Benefit Analysis](#) ([these  
transformational...](https://www.codot.gov/business/rules/documents/cdot-cost-benefit-</a></p></div><div data-bbox=)

[Advancing Colorado Climate & Clean Energy Goals: Some good things happened in 2020! \(/blog-posts/advancing-colorado-climate-clean-energy-goals-some-good-things-happened-in-2020\)](#)

[BLOG POST]:  
Despite all of the challenges of 2020, our state saw more progress on climate and clean energy than we have ever made in any previous year.

analysis-for-ghg-rule-sept-2021.pdf) developed for the rules illustrates a likely pathway that involves shifting some investments away from roadway capacity

expansion projects into multimodal projects, and mitigating some remaining capacity projects. Under this scenario, the Cost-Benefit Analysis estimates substantial net economic benefits from savings in vehicle operating costs, monetized benefits from reduced impacts of GHG and air pollution emissions, monetized benefits from reduced traffic fatalities and injuries, and improvements in physical health. The total societal benefits anticipated from implementation of the Rules is estimated to total roughly \$40B between 2022 and 2050. This also should be seen as a lower bound on the net benefits associated with the preferred scenario: CEO also provided ([https://www.codot.gov/business/rules/documents/08\\_redacted-written-comment\\_ghg-pollution-standard-10-22-21.pdf](https://www.codot.gov/business/rules/documents/08_redacted-written-comment_ghg-pollution-standard-10-22-21.pdf)) additional order of magnitude estimates for benefits not quantified, including reduced vehicle ownership costs (an estimated \$5.8B annually by 2050), increased access to jobs and other services (an estimated \$168M annually by 2050 just for increased access to jobs for persons with disabilities), and reduced costs for land, construction, and operations and maintenance costs for parking (an estimated \$6.4-\$8.1B annually by 2050).

One of the most critical aspects of this rule is the recognition of induced demand: a widely demonstrated phenomenon ([https://ww2.arb.ca.gov/sites/default/files/2020-06/Impact\\_of\\_Highway\\_Capacity\\_and\\_Induced\\_Travel\\_on\\_Passenger\\_Vehicle\\_Use\\_Briefing\\_Note.pdf](https://ww2.arb.ca.gov/sites/default/files/2020-06/Impact_of_Highway_Capacity_and_Induced_Travel_on_Passenger_Vehicle_Use_Briefing_Note.pdf)) in transportation that when you make it easier to drive by adding capacity to roadways, people generally respond by driving more until the highway is filled with traffic once again. Historically, induced demand has not been well captured by transportation models, meaning we not only underestimate the pollution impacts of new and wider roadways, but that we also continue investing in projects that don't actually solve our traffic problems. By ensuring induced demand is accounted for in the modeling for this rule, it's more likely that the new influx of funding from the federal infrastructure bill and state transportation funding bill will be invested in high-quality travel options that provide real alternatives to sitting in traffic. While the rule doesn't prevent highway widenings that often generate more driving and emissions, it does make it more difficult and is likely to result in a shift in spending to sustainable travel modes.

This groundbreaking rule also puts Colorado in a leading position as the federal government moves to re-prioritize GHG reduction in transportation planning nationwide (<https://www.transportation.gov/briefing-room/us-department-transportation-releases-spring-regulatory-agenda>) by tying

State agencies  
engaging in  
utility  
infrastructure  
planning for  
the natural  
gas system  
(/blog-  
posts/state-  
agencies-  
engaging-in-  
utility-  
infrastructure-  
planning-for-  
the-natural-  
gas-system)

and proposed the Gas  
planning process  
for natural gas  
utility  
infrastructure  
will gain  
additional state  
oversight under a  
settlement  
agreement filed  
with state  
regulators that  
became effective  
October 12.

### some federal investments

(<https://www.washingtonpost.com/transportation/2021/12/10/emissions-reduction-target-transportation/>) to the implementation of GHG performance measures.

### **What comes next**

Of course, there is more work to be done to ensure the rule is implemented in ways that can achieve its many potential benefits. CDOT's [newly hired director of their Environmental Justice and Equity Branch](#) (<https://www.codot.gov/news/2021/december/cdot-welcomes-marsha-nelson-environmental-justice>) is starting just in time to ensure steps are taken to center equity and address historical harms in the transportation planning process, through efforts such as creating a transportation equity framework. In the coming months, CDOT will also be working with MPOs and other key stakeholders to develop an accompanying policy by next May that guides how mitigation measures, like land use changes or bike and pedestrian safety improvements, can be used to achieve the GHG reduction goals in the rule if transportation plans fall short. Additionally, CDOT will be setting up processes that guide modeling for transportation planning and regular reporting that is required by the rule. Because this rule relies on forward-looking modeling to estimate reductions from investments, ongoing work to compare real-world results with modeled estimates and calibrate models accordingly will be essential to ensuring emissions reductions. CDOT will also be taking a look at its [10 Year Plan](#) (<https://www.codot.gov/programs/your-transportation-priorities/your-transportation-plan>) in the coming months, which will be an important opportunity to filter new state and federal funding through the lens of this rule, and demonstrate the benefits that this shift in transportation planning can create for Colorado communities.



About Us  
(/about-us)



303-866-2100  
(tel:+13038662100)



Location  
(/office-location)



Employment  
(/employment)



Twitter

(http://twitter.com/#!/COEne)

Select Language

© 2023 State of Colorado |

[Transparency Online \(https://data.colorado.gov/stories/s/fjyf-bdat\)](https://data.colorado.gov/stories/s/fjyf-bdat) |

[Support \(https://www.colorado.gov/support\)](https://www.colorado.gov/support)