

## Greenhouse Gas Pollution Reduction Standard for Transportation Planning Frequently Asked Questions 8/30/21

### How to Engage in the Rulemaking Process

**Q: What is the timeline for the rulemaking and implementation?**

A: The draft rule was noticed with the Secretary of State on Friday, August 13, 2021, and stakeholders were notified on August 16, which initiated a 60-Day Written Comment Period. CDOT also will host nine public Rulemaking Hearings to be held across the state. The Transportation Commission is anticipated to consider the proposed rule in November 2021, and, if adopted at that time, the rule will take effect in January, 2022.

**Q: How can I participate in the hearing process? What if I can't attend a hearing in person?**

A: The Rulemaking Hearings will be held in various locations across the state and have a virtual option so that any interested stakeholders can participate, regardless of your ability to attend in person. Meeting dates, locations, and virtual registration forms are available [here](#). You may also submit a written comment during the 60-Day Written Comment Period from **August 13, 2021- October 15, 2021**. Sign up to become a stakeholder and receive updates [here](#).

**Q: Will Spanish translation be provided? Can I submit a comment in Spanish?**

A: Yes. The Rulemaking Hearings will include Spanish interpretation including public comments. Oral testimony may be given in Spanish with translation into English. CDOT also invites written comments in Spanish or your native language.

**Q: What input did CDOT receive prior to releasing the DRAFT rule?**

A: CDOT initiated stakeholder outreach to gather feedback on the rule and concepts in January, 2021 and prioritized hearing from voices from every corner of the state. The Department convened a GHG Advisory Group consisting of transportation stakeholders to inform this rule. CDOT also held 11 public Regional Meetings, 5 joint State Listening Sessions with CDPHE, and has held or presented at over 60 smaller meetings with stakeholders.

Additionally, staff has worked continuously with Metropolitan Planning Organization (MPO) staff and board members, environmental groups, contractors, equity organizations, local governments, commissioners, and other key stakeholders. This input has been a crucial component of the standard development and CDOT has actively incorporated feedback throughout the process.

**Q: How did CDOT consider the unique needs and perspectives of Disproportionately Impacted (DI) Communities?**

A: During rule development, CDOT met with environmental justice advocacy community organizations on several occasions to seek input on the rule itself and how best to engage with DI Communities during the public review period. One key outcome of these discussions is the translation into Spanish of several key documents related to this rule and a commitment to provide Spanish translation at public hearings. CDOT is particularly interested in receiving feedback on ways to focus the benefits of GHG mitigation strategies and quantifying other emissions co-benefits in DI Communities.

### **What are the Benefits and Impacts of this Rule**

**Q: Will this rule make a meaningful difference in achieving the state's climate goals?**

A: Yes. If finalized, the GHG Reduction Levels proposed in this rule for 2030 are equivalent to burning 169 million fewer gallons of gasoline or taking approximately 300,000 cars off the road for a year. Table 1 in the draft standard shows GHG reduction levels of approximately 7% from 2030 baseline projections, or 1.5 million tons a year of GHG pollution, through planning efforts that will be implemented by this rule. This level of reductions, especially when considered along with the rapid deployment of electric vehicles and future progress to address trucks and heavy duty vehicles, signify tremendous progress toward the state's goals. Additional state efforts not included in this rule are expected to result in an additional reduction of 1.8 million tons projected from light duty electric cars and 6 million tons from improved fuel efficiency.

**Q. Will this Rule also improve air quality and reduce smog?**

A: Yes. Not only will this rule reduce GHG emissions, it will also have important co-benefits for other air pollutants. This is because there is a direct relationship between GHG emissions from cars and emissions of other harmful pollutants like particulate matter and air toxics. As much of Colorado faces a worsening ozone problem, these co-benefits are ever more important.

**Q: What are GHG Mitigation Measures and what impacts will they have?**

A: GHG Mitigation Measures provide an alternative compliance option within the rule allowing CDOT and MPOs to invest in these measures should the expected emissions from projects within a transportation plan be unable to meet the standard. Potential strategies include the addition of bike or pedestrian infrastructure, transit resources, using clean construction practices on projects, or incentivizing equitable transit oriented development. A subsequent CDOT policy (due per the proposed rule by April 2022) will establish the details of how these strategies will be approved and quantified.

**Q: How does this proposed rule relate to the GHG Pollution Reduction Roadmap and the goals set in House Bill 1261 (2019)?**

A: This rule delivers on a key strategy to reduce GHG emissions established in the Roadmap. HB-1261 set statewide goals to reduce GHG emissions below a 2005 baseline: 26% by 2030, 50% by 2040, and 90% by 2050. The Roadmap identified the Transportation Sector as the largest source of GHG emissions in the state and set a reduction target of 12.7 million metric tons (MMT) of carbon dioxide equivalent (CO<sub>2</sub>e) by 2030. Of the 12.7 MMT, 8 MMT is attributed to low and zero emissions vehicle rules and electrification investments in public infrastructure, utilities and fleet turnover. A range of other strategies are identified to achieve the remaining 4.7 MMT, one of which is this rule. The draft rule proposes a 1.5 MMT reduction of CO<sub>2</sub>e by 2030.

## GHG Roadmap: Transportation

### Reduce pollution ~12.7 million metric tons (MMT) CO<sub>2</sub>e by 2030

6 MMT  
reduction


Low and Zero Emission Vehicle rules

2 MMT  
reduction

Utility and public investment in fleet turnover and infrastructure for light-duty zero emission vehicles (SB19-077, electrification investments from SB21-260)

Collectively, the other strategies will target remaining 4.7 million tons

~4.7 MMT  
reduction

GHG Pollution Standards for transportation plans 	In progress - CDOT TC Rulemaking - Summer 2021
Incentivize land use to increase housing near jobs and reduce VMT and pollution	Under evaluation
Clean trucking strategy - infrastructure, fleet incentives, consider regulatory tools such as advanced clean trucks and fleet rules	In progress - Study to be Completed - Summer 2021 Stakeholder Engagement - Summer/Fall 2021; plus fleet investments from SB21-260
Participate in developing post 2025 vehicle standards (state and federal)	Federal and CARB processes
AQCC evaluation of indirect source rules	Pending - AQCC Rulemaking
Expansion of public transit, including setting the stage for Front Range Rail	In progress - SB21-238, on-going multimodal emphasis

**Q: Can you explain why the transportation GHG estimates in this rule differ from those in the Roadmap?**

A: This rule is considering the impacts of planning on on-road mobile sources (cars/trucks that travel along our roads). The Roadmap considered other sources in the broader category of transportation—including aviation. Also, the GHG Roadmap used a different tool for projections of emissions and used a different calculation for vehicle miles traveled (VMT).

**Q: Does this rule relate to the Employer Traffic Reduction Program (ETRP) and the Colorado Electric Vehicle (EV) Plan?**

A: The GHG Pollution Reduction Standard is a separate and standalone rulemaking from other efforts, including ETRP. This rule focuses on transportation planning as a way to bring about options for the traveling public to choose less GHG intensive modes of transportation, such as walking, biking and transit.

**Q: Has CDOT conducted a cost-benefit analysis on this rule?**

A: Per requirements set by the Department of Regulatory Agencies, CDOT must provide (if requested) a Cost Benefit Analysis (CBA) no later than 10 days before the first public hearing on the proposed rule. This analysis has been requested and will be made publicly available by the associated deadline for this rule. This document will be available on CDOT's GHG webpage and Rules webpage.

**Q. What is the Social Cost of Carbon and did CDOT include it in its cost/benefit analysis?**

A: Social cost of carbon assigns a monetary value to the larger societal benefits of reducing GHG emissions and slowing climate change. The social cost of carbon was calculated as part of the rule's overall cost/benefit analysis. In conducting this analysis, CDOT used the social cost of greenhouse gases developed by the federal government, as prescribed by Colorado statute.

## Implementation

**Q: How will this rule impact rural Colorado? Will the rule mean rural areas have to be responsible for an urban-caused problem?**

A: Because GHGs are a global pollutant with consequences that impact our climate statewide, it is important to look at reduction opportunities from a statewide perspective. That being said, this rule focuses on the state's largest transportation projects; those that are "regionally significant" and have a quantifiable impact on how people move and how many miles they travel. These types of projects are usually in metro areas. By contrast, projects most common to rural areas—those that ensure a state of good repair like repairing bridges and pavement—are not subject to this rule.

**Q: Which MPOs will be subject to the rule and when?**

A: The rule will apply to all MPOs and CDOT, however implementation is phased. Denver Regional Council of Governments (DRCOG), North Front Range Metropolitan Planning Organization (NFRMPO) and CDOT will be in the first phase of implementation because they are required in SB-260 to update their plans by October, 2022 to comply with the rule. Pikes Peak Area Council of Governments (PPACG), Pueblo Area Council of Governments (PACOG), and Grand Valley Metropolitan Planning Organization (GVMPO) have until their next planning cycle and are not subject to the 2025 GHG reduction goal.

**Q: How does the proposed rule impact projects that are funded with local dollars, such as a Regional Transportation Authority (RTA)?**

A: All Regionally Significant Projects, regardless of funding source, are required to be included in GHG modeling analysis. Therefore, if a locally funded project is considered to be regionally significant, that project will be modeled for its impact on GHG emissions. Additionally, if the project is not regionally significant but would reduce GHG emissions, credit may be given to it as a Mitigation Measure, per the draft standard. It is important to

note, however, that the standard does not give the Transportation Commission the authority to prevent a locally funded project from happening. If the area does not achieve the expected GHG Reduction Level as provided in the draft standard, only certain federal or state funds may be restricted for use on projects which reduce GHG emissions.

**Q: What is a Regionally Significant Project?**

A: A regionally significant project is defined in the Rule as is a process to add further specificity to this definition. The intent of this concept is to ensure the proposed Rule focuses on projects that fundamentally change the transportation system such that they would impact GHG emissions - either by leading to more (or less) vehicle travel. An example of regionally significant projects that may be familiar to the public include Central 70, and I-25 widening north and south of Denver.

**Q: How can GHG emissions from projects that haven't been built yet be determined?**

A: Complex travel models—which have been built over decades—predict future travel patterns based on changes to the transportation network (e.g more transit options, wider roads). These models generate total vehicle miles traveled (VMT) which is then translated into GHG emissions via the Motor Vehicle Emissions Simulator (MOVES) model. The MOVES model was developed by the U.S. Environmental Protection Agency (EPA) and is used nationwide to translate VMT into air pollutant emissions. For projects for which current models cannot yet estimate emissions, the modeling profession is continuing to improve modeling capabilities and analytical capabilities are also being developed outside these models.

**Q: Are the GHG Pollution Reduction Levels adjusted for projected population growth?**

A: Yes. The travel models used to calculate and project emissions and set the GHG Reduction Levels account for many factors, including population growth. The Colorado State Demographer's Office produces population growth forecasts which the travel models use when depicting transportation systems, land use, and GHG emissions produced in future years.

**Q: How will the GHG Pollution Reduction Levels be enforced?**

A: The proposed rule requires CDOT and MPOs to achieve set GHG reduction levels at four different time periods (2025, 2030, 2040, 2050). However, the way that the rule is structured, the enforcement mechanism in the event that CDOT or an MPO can not demonstrate that these reduction levels are met, even after committing to Mitigation Measures (other transportation strategies that reduce emissions), is that a portion of their capital funds becomes restricted to use-cases that are demonstrated to reduce pollution and improve mobility. No entity would lose funds as a result of the enforcement provisions becoming effectuated by not hitting the targets in totality. The goal of this policy is to perpetuate serious conversation and planning for how the choices that planning entities make can provide consumers with the choices that are needed to reduce pollution and improve quality of life, not to diminish the ability of any entity to invest these dollars in mobility solutions for Coloradans.

## How GHG Pollution Reduction Levels Were Determined

**Q: How did CDOT determine how to set the GHG Pollution Reduction Levels?**

A: In order to determine feasible ranges of reduction levels, CDOT modeled a series of illustrative policy choice packages that considered three basic factors: 1) more travel choices (bike lanes and sidewalks) and more work from home 2) more transit options and 3) changes in land use patterns that would facilitate less driving. Table 1 below shows the impacts of these scenarios on the GHG reduction levels. The scenarios build on one another - where the lowest end of the range is Scenario 1, and the upper level of the range is Scenario 1+ Scenario 2 + Scenario 3.

However, it is important to note that these packages were used to understand the potential GHG emissions reductions that could be realized with this standard. The decision on how to comply with this rule is up to each MPO and CDOT.

**Q. Isn't land use separate from transportation? Why did CDOT examine the impact of changes in land use patterns?**

A. Land use and transportation are inextricably linked as land use decisions (e.g. new schools, businesses, and housing developments) impact demand on state and local roads. However, the authority over land use lies with local governments. What this scenario contemplates is the role that MPOs and CDOT can play in incentivizing land use decisions (e.g. transit oriented development) that help reduce traffic and pollution.

**Q:"How does the "baseline" in Table 1 differ from the 2005 baseline in HB1261 and the GHG Roadmap?"**

A: The term "baseline," as used in Table 1 of the rule, means the greenhouse gas emissions for the given year under a "no action" scenario for that year, where "no action" means full implementation of currently adopted RTPs and no other planning activities to reduce GHG emissions in response to this rule, and no penetration of EVs into the vehicle market beyond current levels. The term "baseline" is used in the greenhouse gas roadmap to refer to GHG emissions in the year 2005.



**GHG Reduction Levels - Ranges based on Scenarios**

Areas	2025 Baseline Projections	2025 Reduction Level (MMT)	2030 Baseline Projections	2030 Reduction Level (MMT)	2040 Baseline Projections	2040 Reduction Level (MMT)	2050 Baseline Projections	2050 Reduction Level (MMT)
DRCOG	14.9	0.22 - 0.27	11.8	0.38 - 0.82	10.9	0.09 - 0.63	12.8	0.05 - 0.37
NFRMPO	2.3	0.03 - 0.04	1.8	0.06 - 0.12	1.9	0.02 - 0.11	2.2	0.01 - 0.07
PPACG	2.7		2.2	0.07 - 0.15	2.0	0.02 - 0.12	2.3	0.01 - 0.07
GVMPO	0.38		0.30	0.01 - 0.02	0.30	0.003 - 0.02	0.36	0.001 - 0.01
PACOG	0.50		0.40	0.01 - 0.03	0.30	0.003 - 0.02	0.4	0.002 - 0.01
CDOT/Non MPO	6.7	0.1 - 0.12	5.3	0.17 - 0.37	5.2	0.04 - 0.30	6.1	0.03 - 0.18
TOTAL	27.4	0.4 - 0.5	21.8	0.7 - 1.5	20.6	0.17 - 1.2	24.2	0.1 - 0.7

**Q: What is the purpose of Table 2?**

A: Table 2 Shows a scenario with EVs reflected in Colorado’s light duty fleet mix. This includes 940,000 LDV EVs in 2030 (20% of LD fleet), 3.38 million EVs (60% of LD fleet) in 2040, and 97% of Light Duty Vehicles being EVs in 2050. The 2030 and 2050 numbers come from Colorado Energy Office’s [Colorado Electric Vehicle Plan](#), and the 2040 number is derived from typical rates of adoption of new technologies. This table is included in the Regulation in order to show the impacts to projected GHG emissions with the electric vehicle penetration outlined. As noted below, the more EV’s in Colorado, the less impact vehicle miles traveled has as a strategy to reduce GHGs.

**Table 2: Effects on Baseline Emissions of Projected Number of Light Duty Electric Vehicles**

	2025 Projections (MMT)	2030 Projections (MMT)	2040 Projections (MMT)	2050 Projections (MMT)
TOTAL	27.0	20.0	14.0	8.9

**Q: Why didn't CDOT include the assumed growth in EVs as outlined in Table 2 as part of the baseline for the proposed rule?**

A: CDOT didn't include EVs in the baseline because this is a planning rule. EVs are expected to be addressed in future rulemaking.

**Q: Why do the GHG Pollution Reduction Levels go down over time? Shouldn't the reductions become more stringent in order to meet the 2050 goal of 90% reduction in GHGs statewide?**

A: The proposed standards focus on transportation plans which have the ability to provide increased travel options and decrease the amount we drive to reduce GHG emissions. However, as adoption of low and zero emission vehicles increases, the impact of reduced driving on GHG emissions lessens. This is why the GHG Pollution Reduction Levels go down over time; they simply make less of a difference when nearly every car on the road is an electric vehicle (a feasible scenario in 2050).

It is important to note, however, that decreasing the amount we drive and increasing travel options have many other co-benefits, such as decreasing congestion, reducing non-tailpipe air pollution, creating greater access to mobility particularly for Disproportionately Impacted Communities, increasing safety for vulnerable populations, and providing more travel choices including transit, pedestrian and bike infrastructure.