



LEGISLATION

House Bill 19-1261 – *Climate Action Plan to Reduce Pollution*

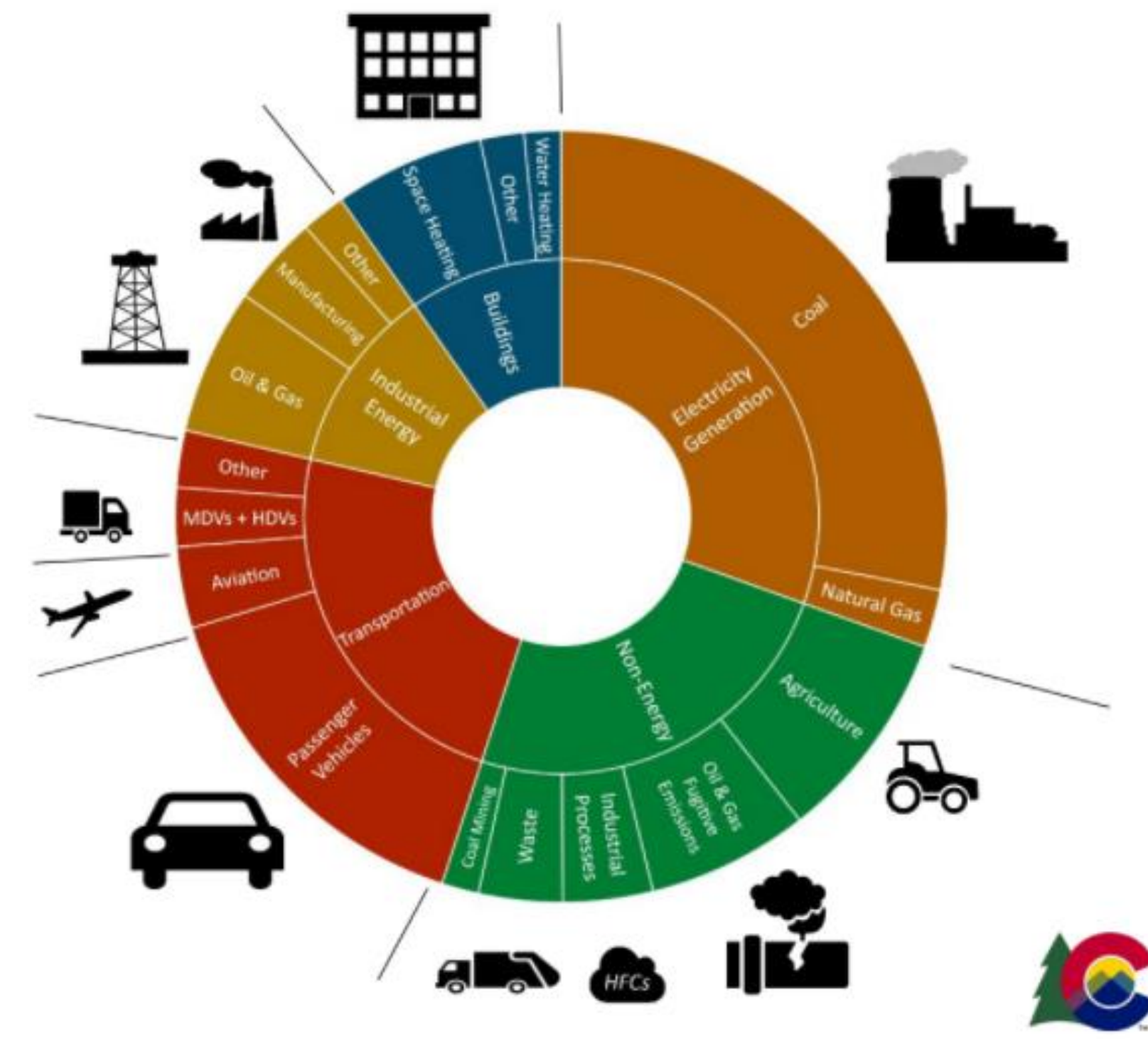
- Reduce GHG emissions 26% by 2025, 50% by 2030, and 90% by 2050.

Colorado Greenhouse Gas Roadmap

- A list of near-term actions the State will pursue over the next few years to make significant progress toward the Climate Action Plan goals.

Senate Bill 21-260

- Made the Roadmap recommendation for transportation planning a requirement.



THE GHG PLANNING RULE

- Approved by the Colorado Transportation Commission on December 16, 2021.
- Requires CDOT and the State's five metropolitan planning organizations (MPOs) to create **transportation plans** that provide more travel choices, resulting in reduced GHG emissions.
- Agencies must use travel models to make this determination for different years in the future (2025, 2030, 2040, and 2050).
- Emission goals differ for each agency and region.
- The modeling applies to "regionally significant projects," which are those projects that result in a fundamental change to the way people travel (e.g., new highway lanes).
- An agency can choose mitigation measures as needed to meet the standard.
- If an agency still can't meet its goals, the Colorado Transportation Commission can designate that specific funding streams for an agency be spent on mitigation efforts.
- The Commission can also issue waivers for certain projects despite their potential impact on emissions, such as those needed for safety reasons.

CDOT REDUCTION LEVELS AND COMPLIANCE

	2025 (MMT)	2030 (MMT)	2040 (MMT)	2050 (MMT)
GHG Baseline	6.30	4.84	3.34	2.09
Required Reduction Amount	0.12	0.36	0.30	0.17
Reduction from Compliance Run	0.30	0.21	0.06	0.04
Reduction from GHG Mitigation Measures	n/a	0.157	0.249	0.135
Total Reduction from 10 Year Plan and GHG Mitigations	0.30	0.367	0.309	0.175
Compliance Result	MET	MET	MET	MET

GHG TRANSPORTATION PLANNING REDUCTION LEVELS IN MMT OF CO2e

Regional Area	2025 Reduction Level (MMT)	2030 Reduction Level (MMT)	2040 Reduction Level (MMT)	2050 Reduction Level (MMT)
DRCOG	0.27	0.82	0.63	0.37
NFRMPO	0.04	0.12	0.11	0.07
PPACG	N/A	0.15	0.12	0.07
GVMPO	N/A	0.02	0.02	0.01
PACOG	N/A	0.03	0.02	0.01
CDOT/Non-MPO	0.12	0.36	0.30	0.17
TOTAL	0.43	1.5	1.2	0.7

STAKEHOLDER ENGAGEMENT/RULEMAKING

January 2021	August 2021	October 2021	November/December 2021
<p>Advisory Board Convened and Regional Stakeholder Engagement</p> <ul style="list-style-type: none"> Advisory Board met regularly – as frequently as 2x a week – to discuss rule concepts CDOT held 11 regional public meetings during this time; focused on transportation stakeholder 	<p>Draft rule issued for 60 day public review</p> <ul style="list-style-type: none"> Nine public hearings across the State during the comment period Each meeting held in a hybrid (in person/virtual) format and offered Spanish interpretation 	<p>Comment period extended another 30+ days and updated draft rule issued</p> <ul style="list-style-type: none"> 10th public hearing on November 10 In total, over 300 comments received in writing or via hearings Vast majority of comments strongly supported the rule 	<p>Final Rule Development</p> <p>Approved by the Transportation Commission on Dec 16, 2021</p>

GHG MITIGATION MEASURES



MITIGATION "POINTS" MATRIX

Project Type	Metric	Project Lifetime (Years)	Points/Metric Now–2025	Points/Metric 2026–2030	Points/Metric 2031–2040	Points/Metric 2041–2050	Additional Multipliers
Pedestrian/Bicycle							
Bike lane/facility – CORE URBAN	Miles of two-way facility built between plan year 1 and evaluation year	30	26	21	12	6	2.0 – separated/ protected lane or bike boulevard 1.5 – within mixed-use district or ½ mile of transit station or school
Bike lane/facility – URBAN			14	11	7	3	
Bike lane/facility – SUBURBAN			4	4	2	1	
Bike lane/facility – RURAL			1	1	1	1	

LESSONS LEARNED

- Government entities with direct subject matter expertise and jurisdiction over transportation dollars should take the lead
 - Colorado's Transportation Commission led the rulemaking.
 - Staff who have worked on the rule have primarily been officials in CDOT's planning division and can interface with MPOs.
- When developing a new framework or policy to address GHG pollution reduction in transportation infrastructure, use familiar concepts to the extent possible
 - Much of the structure is similar to ozone conformity, though the statutory basis for the rule is different.
 - Concept of the approved mitigation list is derived from highway safety regulation.
- Create a big tent for stakeholder outreach, and keep everyone at the table
 - 10 public hearings held, far exceeding public outreach requirements for rulemaking via the Administrative Procedures Act.
 - Informal stakeholder working group has evolved into a venue for ongoing work around implementation.
 - Outreach has included both supporters and skeptics of the rule, ensuring differing perspectives are heard.
- Balance good modeling with ongoing focus on real-world outcomes and improved options for citizens
 - Colorado's Activity-Based Model has continued to gain credibility in the field and to incorporate cutting-edge techniques.
 - Model must be paired with a real-world focus on how the implications of a policy will impact people.
- Be ambitious and embrace impact
 - GHG reduction policies become quickly charged and tend to evoke strong policy reactions
 - "Pushback" will likely be as strong for a policy that is purely symbolic as for one that achieves meaningful change and real impact. So, go for the impact.

REAL WORLD IMPACTS

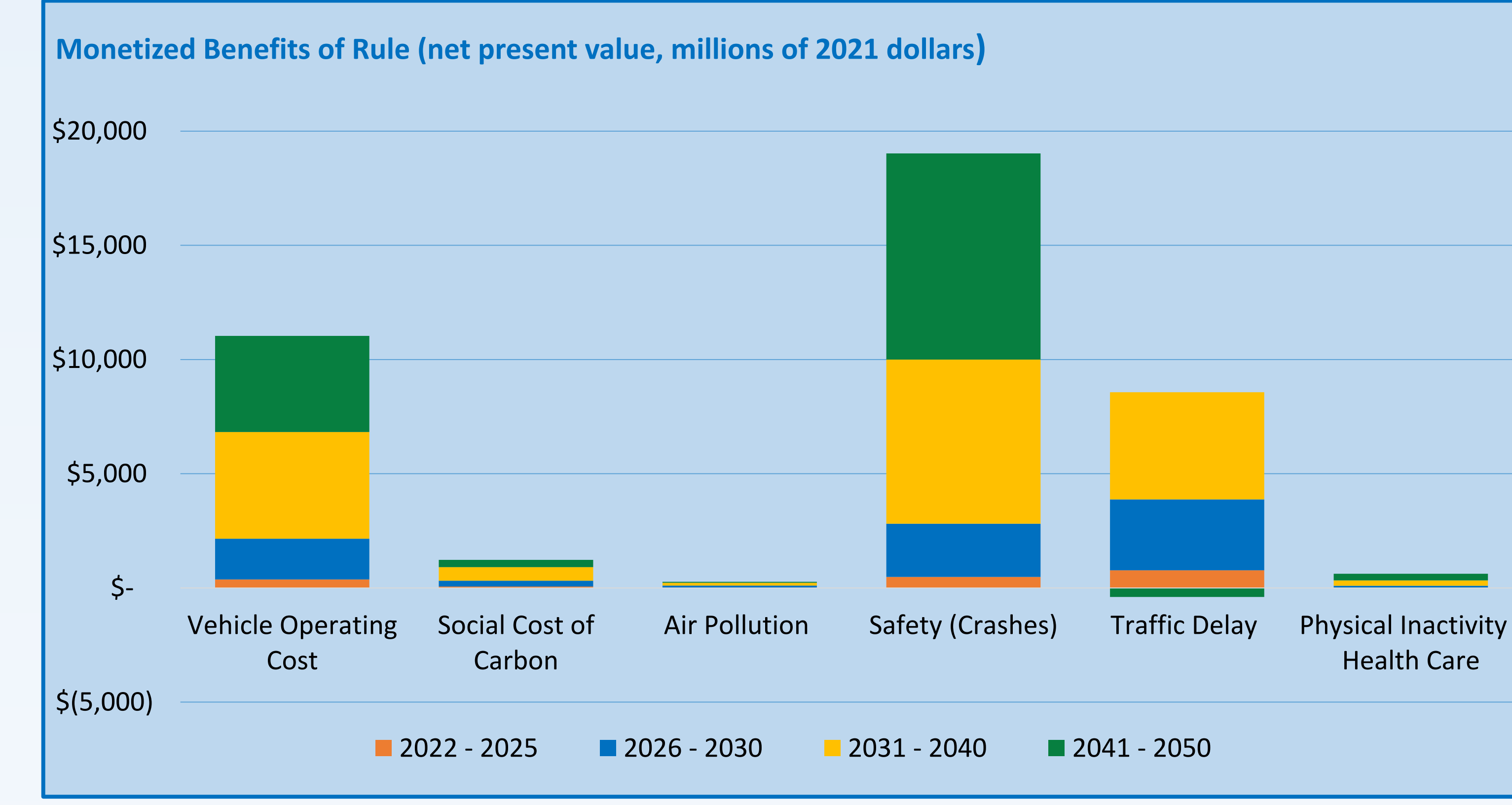
- Inclusion of more multimodal project features**
 - E.g., CDOT initiated new micro-transit bus service as part of reconstruction of the "Floyd Hill" segment of I-70.
- Empowerment of MPOs to drive important conversations about infrastructure impacts**
 - Denver Regional Council of Governments has begun addressing land use in a meaningful way far exceeding past precedent.
 - Staff has begun to "pressure test" proposals to widen arterials that once composed much of the region's long-range plan.
 - DRCOG's planning process has moved to prioritize and accelerate significant transit investments like bus rapid transit.
- Strengthening modeling and analytical capabilities**
 - Rule prompts agencies to develop and adopt state-of-the-art travel demand models that take into account not just driving but also walking, biking, telework, smart development, and induced demand.
 - CDOT and MPOs are working together to share best practices and technical capabilities.

MODELING

Evaluation Tool	Transit	Bicycling and Walking Infrastructure	TDM and Tele-travel	Land Use	Parking	HDV Charging	Micromobility	Clean Construction
Colorado's Statewide Activity-Based Model		✓	✓					
MPO Travel Demand Models	✓	✓		✓				
FHWA Energy and Environmental Policy Analysis Tool (EERPAT)	✓		✓	✓				
Mitigation Points Matrix	✓	✓	✓	✓	✓	✓	✓	✓

COST BENEFIT ANALYSIS

- Key benefits of the rule include:
- Vehicle operating cost savings:** Due to reduced need for travel and more efficient vehicles.
 - Social cost of carbon** (increasing from \$83 per metric ton of CO2 in 2025 to \$116 per metric ton for emissions occurring in 2050).
 - Air pollution:** Savings in health care costs as well as damage to structures and natural systems from reductions in particulate matter (PM) and oxides of nitrogen (NOx).
 - Safety (crashes):** Reduced crash costs based on reduced VMT.
 - Traffic delay:** Reduce traffic delay resulting from lower VMT, considering offsetting effects of "induced demand" from capacity expansion.
 - Physical activity:** Investments in walking and bicycling infrastructure and transit services increase physical activity and reduce health costs associated with inactivity.



DISPROPORTIONATELY IMPACTED COMMUNITIES

- Rule requires that CDOT and MPOs measure and prioritize localized benefits of GHG Mitigation Measures to Disproportionately Impacted Communities.
- CDOT hosted a series of **workshops** with members of the statewide Environmental Justice Taskforce and other stakeholders.
- Proposing to use the **Transportation Equity Scorecard** (University of South Florida's Center for Transportation Equity, Decisions and Dollars) to measure benefits of mitigations.
- CDOT Environmental Justice and Equity Branch's work on a more comprehensive **transportation equity framework** will support equity-focused prioritization.

