

Reducing Costs, Commutes, and Climate Pollution:

State Solutions for Better Transportation



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Acknowledgements

This paper draws on research and analysis by:

- Georgetown Climate Center: James Bradbury
- NUMO: Ben Holland
- RMI: Miguel Moravec and Drew Veysey
- Sierra Club: Katherine García
- Transportation for America: Corrigan Salerno

Contributions and review by:

- America Walks
- Evergreen Collaborative
- The Greenlining Institute
- Natural Resources Defense Council
- Rails to Trails Conservancy



cleanridesnetwork.org

Introduction

As the White House takes steps to dramatically reshape federal agencies and budgets, it raises a wide range of questions about the impact of those changes on the economy, public health and safety, and the environment. The transportation sector, particularly surface transportation, (roadways, rail, and transit) has been the subject of [executive orders](#) and [other early Administration efforts](#) to freeze or cancel investments in certain programs.¹ However, federal transportation funding is only part of the picture. Much of the responsibility for planning, implementing, and, in many cases, funding surface transportation rests with state Departments of Transportation (DOTs), which have long benefited from significant flexibility in determining how and where to invest federal transportation funds.

Transportation investments have historically enjoyed high levels of support among voters. Ballot measures to fund public transit and other transportation projects remain popular: In the November 2024 elections, [voters passed 19 of 25 ballot measures](#) to fund public transit, in many cases agreeing to tax themselves to build transit infrastructure, increase service frequency, and purchase trains and buses. [Strong majorities of voters](#) cite improved safety, reduced cost, greater reliability, and environmental sustainability as important transportation priorities for the future.

In light of rising uncertainty about the direction of national transportation policy, including the future of federal funding for electric vehicles and public transit, state and local leadership, which has long been at the center of transportation planning and investment decision-making, will play an even more pivotal role. Federal transportation funding accounts for only a portion of total revenue for state and local transportation agencies. Furthermore, the bulk of federal funding is provided through formula grants (non-discretionary funding opportunities based on specific parameters set by Congress), limiting the federal role in decision-making and providing a high level of flexibility and discretion to state and local governments.

This report from the Clean RIDES (Responsible Investments to Decrease Emissions in States) Network – over 100 organizations in the climate, transit, labor, housing, and public health fields – outlines new strategies that can save people money and time while cutting pollution from the transportation sector. This analysis highlights opportunities for states, particularly governors and state DOTs, to adopt innovative new policies and practices that could, between now and 2050, significantly expand safer, cleaner, and more affordable transportation choices that better serve the public.

Results from this analysis show that by investing in electrification and multi-modal transportation systems, states could save consumers trillions of dollars through 2050 and demonstrate that public projects can substantially improve public health, safety, and the environment.

¹ The Oregon Department of Transportation has published a summary of implications from a state perspective. *Federal funding on hold for several ODOT projects as USDOT issues new funding criteria* <https://www.oregon.gov/odot/about/pages/federal-funding-eo-pause.aspx>



Estimated total benefits in seven states from 2025 through 2050 due to a shift in state and local transportation funding priorities toward cleaner vehicles and multi-modal transportation systems.

Opportunity for Progress

It is not surprising that Americans so often support public transit projects given that [transportation is second only to housing costs](#) as a share of monthly expenses for the typical American family. A major contributing factor is the rising costs of operating a car, and rural and suburban households often depend on multiple cars due to [limited access to transit](#), compounding the costs of vehicle ownership and contributing to tailpipe pollution. Daily commutes in traffic have grown worse every year, and the average American now spends nearly an [hour a day commuting](#). In terms of public safety, 2023 marked a 40-year high for traffic-related pedestrian [fatalities](#), which have [increased 60%](#) over the past decade. At the same time, transportation is a leading cause of air-pollution-related deaths in the [United States](#) and [globally](#), and the transportation sector is the largest source of greenhouse gas (GHG) emissions in the United States, [accounting for](#) over 28% of the total in 2022.

Most Americans would like [more transportation options](#), including improved transit service and cleaner vehicles. However, because communities have been built to prioritize car travel, most Americans have limited transportation choices, with many having no alternatives to long car commutes and rising costs for vehicles, fuel, and insurance. A 2024 study of the American Automobile Association pegs the average cost of vehicle ownership at [\\$12,297 per year](#), an all-time high. By changing how federal, state, and local transportation agencies fund and plan transportation infrastructure investments, state leaders can address these challenges and improve the lives of their constituents.



Credit: iStock/peeterv

To that end, the Clean RIDES Network has collaboratively identified opportunities to update transportation systems to save Americans time and money while reducing pollution in line with [U.S. climate commitments](#) to the international community and [individual state climate goals](#). The Clean RIDES Network is a first-of-its-kind network focused on large-scale, durable, multi-state transportation reform.

To explore how changes in transportation policy could improve future transportation outcomes, Clean RIDES Network members developed a menu of policy options and modeled a related set of scenarios. The modeling estimated how different policies and investment scenarios could affect future transportation costs, pollution, and commute times in seven states: California, Illinois, Maryland, Michigan, Minnesota, New York, and Pennsylvania. These geographically diverse states represent a range of populations and projected growth rates. They also have ambitious goals to reduce climate pollution and, in some cases, are already implementing related transportation policy reforms, including new rules for planning and project selection that account for the emissions performance of investments, annual budgets that boost funding for transit and clean vehicles, and land use reforms. The final section of this paper further describes these and other policy options and provides examples from leading states.

The Clean RIDES Analysis: A Make-or-Break Moment for Transportation

Every year, state DOTs and their local partners – municipalities and transit agencies – invest hundreds of billions of dollars in transportation infrastructure and fleet vehicles. The seven

states that are the focus of this analysis spent a combined total of more than [\\$125 billion on roads and transit](#) in 2019 alone. Roughly 20% of the revenue for these investments came from federal programs,² and the remainder drew from state and local sources.

State governments are the primary source of transportation funding, and state DOTs operate at the center of the planning and decision-making processes that determine what projects are built and which types of fleet vehicles are purchased with state and federal transportation dollars. While federal policies establish common frameworks for regional [planning](#) and coordination between jurisdictions, the federal government does not dictate state decisions on matters such as project selection and prioritization. Furthermore, federal formula funding programs are [flexible](#), both in terms of project eligibility and the ability for states to readily transfer funding between programs. For example, Pennsylvania Governor Josh Shapiro recently [shifted \\$153 million](#) in federal roadway dollars to help support Philadelphia's transit system.

State leaders are best positioned to assess and respond to the transportation challenges and opportunities in their states, underscoring the importance of preserving and maximizing flexibility and support for state innovation and autonomy. To demonstrate why this matters, this analysis explores different approaches to federal and state electric vehicle policies, along with state-driven reforms to transportation planning, investments, and land use. Using a collection of modeling tools,³ this analysis examines how a range of approaches could affect pollution, consumer costs, commute times, and other outcomes from 2025 through 2050.⁴ Across the seven states, the analysis focuses on three “what if” transportation policy scenarios.

1. Holding the Line: Current Progress. The first scenario is a continuation of the funding and policy priorities in place at the end of 2024, including federal and state vehicle emissions standards, federal funding and incentives for electric vehicles and infrastructure, other transportation-related funding in the Infrastructure Investment and Jobs Act (IIJA), and levels of state transportation funding consistent with each state’s most recently published capital plans. Based on an [analysis of state spending](#) of federal transportation dollars through 2024, investment in roadway capacity expansion projects

² For the seven states that are the focus of this analysis (CA, IL, MD, MI, MN, NY, and PA), revenues for transportation from federal sources ranged from 15% to 26% annually, from 2019-2022. State Smart Transportation Initiative (2024, March 11). *Know Your State*. <https://ssti.us/know-your-state/#funding>

³ This analysis used the following modeling tools from Georgetown Climate Center and RMI: [Transportation Investment Strategy Tool](#); [State Energy Policy Simulator](#); [E-bike Calculator](#); [Smarter MODES](#); [Replica-based Land Use Analysis](#).

⁴ This analysis required accounting for changes in the rate of vehicle electrification, the total number of vehicle trips (i.e., VMT), and changing housing densities in population growth states. In each scenario, funding was distributed differently across various project types within a few key investment categories – including EV charging and vehicle purchase incentives, transit, and other multimodal projects – as well as emissions-increasing roadway capacity expansion projects. Future transportation funding levels through 2050 were projected by extrapolating average annual funding levels from the most recently published transportation capital plans from the seven states analyzed. These plans include projected estimates of future state and federal funding levels, and this analysis assumes that future U.S. Congresses pass transportation reauthorization every five years.

has been significant – accounting for nearly 20% of total IIJA dollars spent in the seven states since 2021 – putting [upward pressure on future transportation emissions](#).

2. Going Backwards: Potential Rollbacks. This scenario assumes that the Trump Administration follows through on [plans](#) to roll back pollution standards for cars and trucks, while also repealing incentives from the Inflation Reduction Act (IRA) for electric vehicles and ending investments in charging infrastructure. This scenario also assumes that nearly a quarter of all future surface transportation funding is invested in highway expansion projects, indicating no meaningful changes to state policies or innovative practices that would help transition to more affordable and sustainable transportation systems.

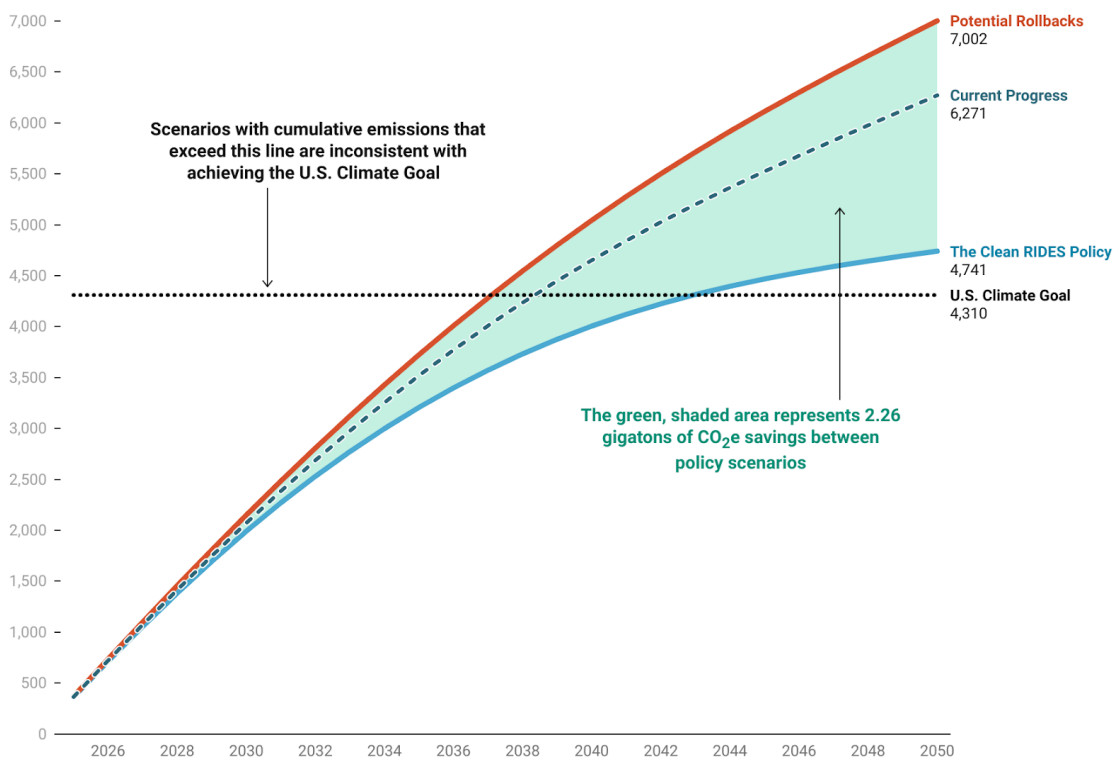
3. Meeting the Moment: Clean RIDES Policy. This scenario assumes state and local governments retain the authority and flexibility to implement significant but achievable changes in how transportation planning is conducted – and reprioritize how dollars are spent. Investments in road-widening projects – which have been demonstrated to [induce travel demand](#) without decreasing travel times – are redirected toward strategies that provide more options for people to walk, roll, take transit, or purchase and conveniently charge electric vehicles. Existing roadways are well maintained in this scenario because state resources are prioritized for maintaining existing infrastructure more so than current practices. This is coupled with new transportation infrastructure investments that prioritize helping people in urban, suburban, and rural communities gain greater access to economic opportunity, healthcare, and education. Funding levels for transit capital programs are doubled in this scenario to improve service and support infill housing that is more walkable and transit-accessible. Policies that would help achieve these outcomes are described in the last section of this paper.

The Clean RIDES Analysis: Our Path Forward

Clean RIDES Network members modeled the pollution impact of the three scenarios detailed above, examining the benefits of avoiding currently proposed “Potential Rollbacks” and shifting investment priorities in state and local DOTs to build on “Current Progress” from policy actions initiated before 2025. The figure below shows cumulative GHG emissions through 2050, illustrating that the scale of pollution is markedly different in each scenario, but “Clean RIDES Policy” is the only scenario that could bring transportation emissions from the seven states close to meeting U.S. climate commitments through 2050. Clean RIDES Policy is also the only scenario that can be achieved through actions at the state and local level.

Emissions Scenarios Relative to U.S. Climate Goals (MMT CO₂e)

This plot examines cumulative surface transportation emissions outcomes across different policy scenarios in seven states: California, Illinois, Maryland, Michigan, Minnesota, Pennsylvania, and New York. Scenarios with cumulative emissions that exceed the dotted, horizontal line are inconsistent with achieving the U.S. Climate Goal.



This figure shows cumulative surface transportation emissions from seven states (CA, IL, MD, MI, MN, PA, and NY), for three different scenarios, from 2025 through 2050. The “U.S. Climate Goal” line represents the estimated level of cumulative CO₂e emissions from surface transportation by 2050 – combined total for the seven states – that is consistent with the United States meeting its Nationally Determined Contribution (NDC).⁵

The “Potential Rollbacks” scenario is the most pollution-intensive. Over the 25-year analysis period, GHG emissions from surface transportation in the seven key states would add up to a cumulative seven gigatons of CO₂e, between 2025 and 2050, equivalent to the GHG emissions produced across all sectors in the United States in the [year 2010](#). The key distinguishing features of this scenario are the repeal of vehicle standards and rollback of incentives for clean vehicles and related infrastructure, which a recent Rhodium Group analysis found would result in far [greater cost burdens on consumers](#).

In the “Current Progress” scenario, clean vehicle policies and investments are maintained, avoiding an additional 731 MMT CO₂e of cumulative emissions that would occur, by 2050, in the “Potential Rollbacks” scenario.

⁵ State-specific and transportation sector-level emissions that are consistent with the U.S. NDC were derived from the Energy Policy Simulator:

<https://docs.energypolicy.solutions/us-state-eps-methodology#ndc-scenario>

Finally, in the “Clean RIDES Policy” scenario, a combination of investments in clean vehicles, transit, and system efficiency improvements would avoid over 1,500 MMT in cumulative emissions from the seven states, compared to the “Current Progress” scenario. Compared to the “Potential Rollbacks” scenario, the “Clean RIDES Policy” scenario could substantially cut transportation pollution, avoiding more than one third of cumulative emissions (2,261 MMT), through 2050.

Policy Scenarios <i>Policy Interventions & Investments</i>	Cumulative emissions from on-road transportation, 2025-2050 (MMT CO ₂ e)
Potential Rollbacks	7,002
<i>Protect clean vehicle policies</i>	-731
Current Progress	6,271
<i>Avoid highway expansion investments</i>	-288
<i>Accelerate electrification with investments</i>	-736
<i>Transit and system efficiency investments</i>	-505
Clean RIDES Policy	4,741
U.S. Climate Goal	4,310

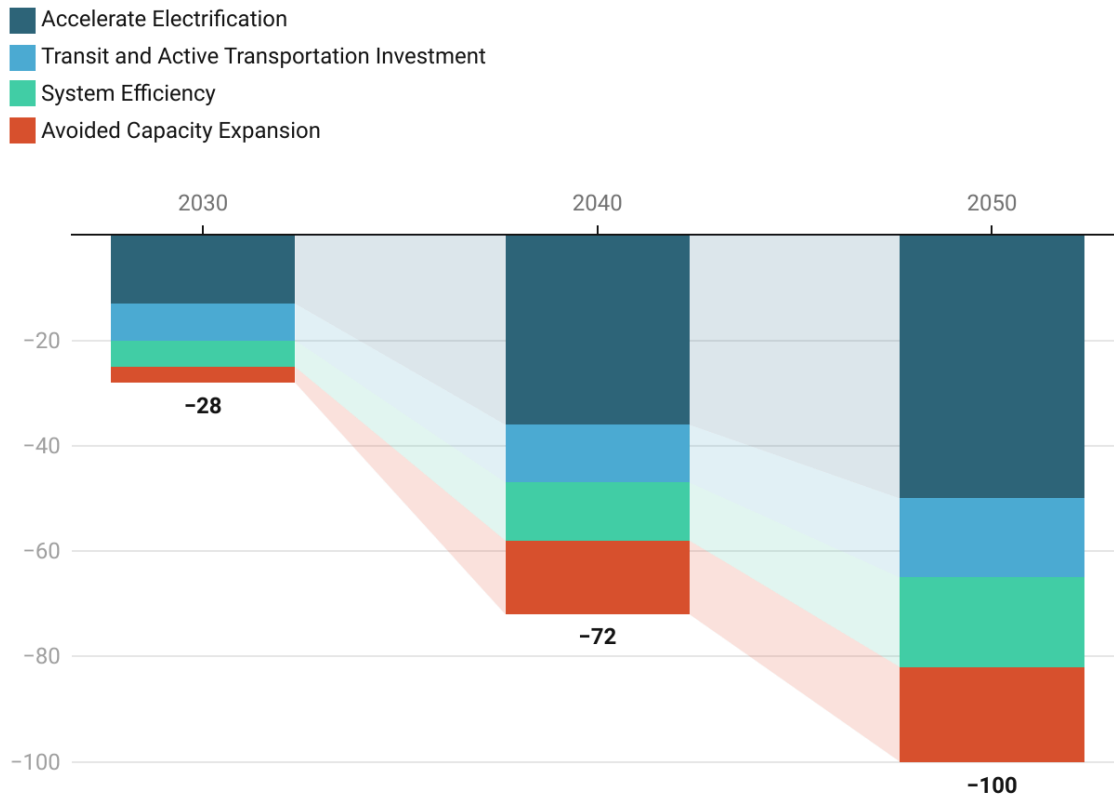
The figure below illustrates the annual scale of pollution reductions in the “Clean RIDES Policy” scenario for the seven states, compared to the “Current Progress” scenario for on-road transportation in 2030, 2040, and 2050.⁶ This shows the relative contributions from each type of investment. For example, in the year 2050, climate pollution could be reduced by:

- 50 MMT CO₂e due to investments in charging infrastructure and other incentives to accelerate vehicle electrification;
- 32 MMT CO₂e as a result of investments in transit, active transportation, and system efficiency; and
- 18 MMT CO₂e by avoiding investments in road capacity expansion projects.

⁶ Detailed modeling of the pollution differences and public benefits between the “Potential Rollbacks” and “Current Progress” scenarios is beyond the scope of this white paper.

Annual Pollution Reductions from Groups of Investments and Policies, MMT GHG (CO₂e)

Comparing the 'Current Progress' Scenario with the 'Clean RIDES Policy' Scenario



Source: GCC Transportation Investment Strategy Tool, RMI State Energy Policy Simulator, RMI E-bike Calculator, RMI Replica-based Land Use Analysis

Annual pollution reductions from surface transportation in the seven key states, delineated by type of transportation investment, in the "Clean RIDES Policy" scenario compared to the "Current Progress" scenario.

Clean RIDES Policy Scenario: Public Benefits

In addition to cutting climate pollution, the "Clean RIDES Policy" scenario unlocks trillions of dollars of direct cost savings and public health benefits in the seven studied states. The analyses outlined below – estimating consumer cost savings, shorter travel times, improved safety, cleaner air, and better public health – illustrate potential benefits from the "Clean RIDES Policy" scenario compared to the "Current Progress" scenario.

1. Saving Money. Consumers save money when they have access to affordable transportation choices.

In the “Clean RIDES Policy” scenario, the average household would save \$1,678 per year from reduced vehicle ownership expenses. With these savings – which are equivalent to over three months worth of [payments for the average used car](#) – consumers would have more money to spend on goods and services, spurring local economies. Approximately \$1,035 of the projected savings come from fewer trips to the pump for gas and a mechanic for maintenance. The remainder would come from putting less wear on vehicles, resulting in \$643 of avoided depreciation per year. Cumulatively, these household savings would exceed \$2.1 trillion by 2050.⁷

These savings are just the beginning; drivers who switch to electric vehicles can also save [\\$1,200 per year](#) in operations savings compared to completing the same trips in a combustion engine vehicle.

2. Improved Safety Outcomes. If states put greater priority on a range of multi-modal transportation choices – i.e., cars, buses, rail, bicycles, or walking – tens of thousands of people would benefit from avoided, life-altering crashes.

Between 2000 and 2019, [624,000](#) Americans died from car crashes, more American deaths than from both World Wars combined. Automobile travel is one of the most dangerous ways to get around. By comparison, bus and rail trips are [10 times and 18 times](#) safer, respectively, per passenger mile.

In the “Clean RIDES Policy” scenario, improved access to safer options would result in 84,000 fewer cumulative crash fatalities by 2050. Many car crashes result in non-fatal injuries. Indeed, [30 million Americans](#), or about one in 10 people, were injured in crashes between 2000 and 2019, resulting in traffic delays, lost productivity, and needless suffering. This scenario would also avoid 1,255,000 fewer crash injuries by 2050.

3. Cleaner Air, Better Health, and Faster Commutes. Reduced congestion, improved air quality, and better health go hand in hand in the “Clean RIDES Policy” scenario.

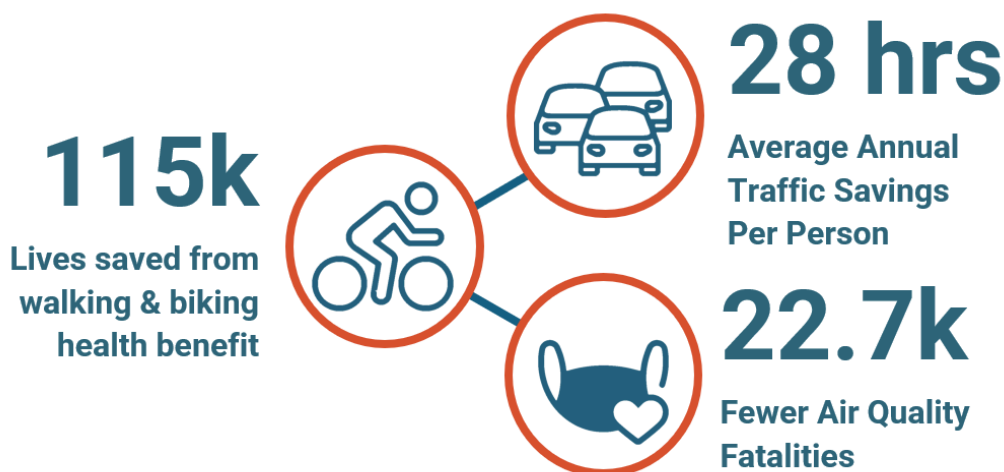
Less tailpipe pollution means people can breathe easier, literally, when strolling, shopping, and recreating on streets. According to our analysis, over 22,700 lives would be saved from improved air quality outcomes over the 25-year study period. The American Lung Association bolsters this finding, reporting that millions of asthma attacks and [lost work days](#) could be avoided by accelerating the transition to clean vehicles.

As improved pedestrian and bicycle infrastructure attracts more users to walk and roll to their destinations, the cardiovascular benefits of increased exercise yield significant

⁷ This assumes population and housing stock growth, consistent with current projections (Source: Smarter MODES Calculator: Smarter Mobility Options for Decarbonization, Equity, and Safety - RMI)

extension of life benefits. The United States has experienced a [decline in physical activity](#), compared to before the COVID-19 pandemic; and even assuming conservative adoption of active transportation trips, the “Clean RIDES Policy” scenario would prevent 115,000 premature fatalities from improved health outcomes.

In addition, more transportation choices mean less traffic on highways, which benefits transit riders and car drivers alike. According to our analysis, reduced congestion associated with the build-out of multi-modal solutions results in an annual average travel time savings equivalent to 28 hours of traffic avoided per person.



Estimated total benefits in seven states from 2025 through 2050 due to a shift in state and local transportation funding priorities for road and transit-related investments toward cleaner vehicles and multi-modal transportation systems.

Clean RIDES Policy Options: What States Can Do

The pollution reductions and other benefits modeled in the “Clean RIDES Policy” scenario don’t happen on their own. They require the adoption and implementation of policies and programs, which presents a critical opportunity to support state-level action to advance transportation reforms that will save Americans money and time, make roads safer, and reduce pollution. Right now, leading states are innovating by passing and implementing landmark policies that will change their residents’ lives for the better – even if federal rollbacks and repeals come to pass. Those efforts can serve as models to achieve similar benefits in other jurisdictions.

1. Planning and Project Selection. States can adopt policies that will shift how transportation investments are made and which transportation projects are prioritized.

- State statutes or regulations can require transportation agencies to account for the additional GHG emissions that could result from road expansion projects or

decreases from multi-modal projects that reduce vehicle miles traveled (VMT). [Colorado](#) and [Minnesota](#) have recently adopted GHG planning standards that serve as models for other states to ensure their new transportation projects will help achieve their climate goals. RMI's [SHIFT calculator](#), which estimates the GHG emissions associated with induced VMT, is a helpful resource.

- States can also set up a process that requires all projects requesting transportation funding to be reviewed through the same quantifiable, transparent, and outcome-based evaluation. [Virginia's SMART SCALE](#) is the state's innovative assessment process that guides selection of critical transportation projects.



Credit: Shutterstock

2. Budgeting and Project Funding. State budgets and capital planning can more closely reflect stated policy goals to provide people and businesses with more low- and zero-emission transportation options.

- Budgets and capital plans can include establishing and expanding bus and train routes and transitioning bus fleets and train rolling stock to electric. Transit agencies can invest in Bus Rapid Transit (BRT), high-speed rail, and commuter rail. [Madison, Wisconsin](#) has transitioned to electric buses, and [Caltrain in Northern California](#) is replacing diesel locomotive trains with electric trains.

- Policies can help reduce the financial and safety barriers to active transportation, such as offering e-bike incentives, enabling bike and scooter share programs, and implementing a Complete Streets plan. Washington, DC, launched its [bikeshare program](#) in 2010; a recent analysis showed that Capital Bikeshare [is the fastest-growing bikeshare system](#) in the country, with monthly ridership increasing for 36 consecutive months as of January 2025. [Washington State's Complete Streets program](#) enables safe walking, biking, driving, and transit riding.
- States and municipalities can make strategic investments to accelerate the adoption of electric vehicles, offer electric car-share, and ensure access to convenient charging options. The [Massachusetts Offers Rebates for Electric Vehicles \(MOR-EV\) program](#) incentivizes new and used EVs for residents, businesses, and non-profit organizations, and many other states currently offer or are considering similar incentives. In 2023, New York City, NY, [passed legislation](#) putting the city on a path to transition to an all-electric fleet by 2038. The [BlueLA electric car-share program](#) benefits communities throughout Los Angeles, CA, by reducing the need for car ownership and curbing tailpipe pollution.



Credit: Electrification Coalition

3. Land Use Reforms. Land use policies and zoning reforms can help to reduce pollution and VMT, and create more vibrant, sustainable communities.

- States and municipalities can adopt policies such as those proposed by the [Parking Reform Network](#) to eliminate parking minimums and therefore reduce urban sprawl, congestion, vehicle miles traveled, and car dependency. The Washington [Senate recently passed](#) a parking reform bill, while dozens of cities across the United States, including large cities like [Austin, TX](#) and [San Jose, CA](#), have removed all parking minimums.
- Policies that advance housing projects through transit-oriented development can increase the number of affordable units and create high-density areas like in [Minneapolis, MN](#). Recently passed [legislation in Colorado](#) will require local governments to update zoning ordinances to enable housing construction in more locations, particularly in proximity to transit.

States can recruit and hire more climate and clean transportation experts to join their workforce, and governors can provide strong leadership to help ensure successful implementation in all three of the above policy areas. State DOTs can also pursue reforms within their agencies, taking steps to enable ambitious and sustained action, including greater transparency and more inclusive approaches to planning and public engagement. Reforms to transportation modeling and greater transparency around decision-making can also create opportunities for more public accountability. Budgets and decision-making processes can be more explicitly and directly focused on achieving transportation outcomes that are aligned with affordability, safety, access, equity, and climate action.

State Leadership: The Foundation for Clean Transportation

[For decades](#), Congress has passed transportation reauthorization bills that give state and local DOTs a high degree of autonomy and flexibility, with the vast majority of federal dollars for roads provided to states in bulk formula grants with few strings attached. State and local governments decide which projects are needed and use [flexible federal funding](#) to supplement state and local funding.

Several state laws now require reforms to the approaches used by their DOTs for infrastructure [planning](#) and [investment](#). Some states, like New York, are leveraging creative revenue solutions, such as [congestion pricing](#) and [taxes on large corporations](#), to raise more funding for investments in transit, bike and pedestrian projects, and vehicle electrification. An increasing number of state DOTs are taking steps to better account for [induced demand](#) during planning and project selection. By contrast, various other infrastructure investments can reduce traffic congestion while saving money for households. For example, a [Colorado Department of Transportation analysis](#) found that it could save commuters \$40 billion in cumulative costs by shifting excess roadway widening dollars to expanded transportation choices like Bus Rapid Transit, bike lanes, and improved sidewalks.



Credit: Flickr/Green Lane Project

Additionally, due to the IIJA and IRA, state DOTs throughout the country have gained experience [making plans](#) and implementing programs that make transportation more affordable, equitable, and sustainable while shortening commutes. Uncertainty at the federal level regarding [availability of funds](#) and [rescission of approval of state plans](#) presents significant [challenges](#) for state DOTs. Still, states have been leveraging [billions](#) of federal dollars through the National Electric Vehicle Infrastructure (NEVI) Program and the Carbon Reduction Program for low-carbon transportation infrastructure. Strategic planning requirements in these programs have also included consideration of equity and GHG emissions outcomes. The Safe Streets and Roads for All program has invested billions of dollars in projects preventing roadway deaths and severe injuries.

Implementing these state and federal clean transportation programs is giving state and local DOTs valuable experience that can serve as building blocks for further progress and innovation.

This is a critical moment for the future of transportation. Issues of safety, reliability, and affordability face communities in every corner of the nation. With the federal government pulling back from policy and funding leadership, state and local governments hold the keys to solving the United States' largest transportation challenges. This analysis by members of the Clean RIDES Network shows that funding clean transportation choices and reforming land use practices will help offer more mobility options for everyone, relieve gridlock, and reduce pollution.