POLICY STATEMENT

ASSOCIATION OF PEDESTRIAN & BICYCLE PROFESSIONALS

Expertise for Active Transportation

POLICY STATEMENT:

CARBON NEUTRALITY AND VMT REDUCTION

Overview of APBP Policy Statements

The Association of Pedestrian and Bicycle Professionals (APBP) supports the community of professionals working to create more walkable, bikeable places through facilitating the exchange of professional and technical knowledge and by promoting fundamental positions that are broadly acknowledged and acted upon by APBP members.

APBP Policy Principles:

- APBP represents the professional expertise and practical experience of its members in transportation policy discussions to advance active, healthy, and sustainable communities.
- APBP recognizes the impacts of systemic and institutionalized racism, and we recognize our responsibility to identify and address inequities.
- APBP endorses active transportation as an integral part of transportation systems through all stages of planning, design, funding, and implementation.
- APBP supports connected, convenient, accessible, and safe streets and pathways in every community and planning with the input of every member of a community.
- APBP advances a safe system approach that leverages active transportation to create equitable access for everyone in every place.

Position:

APBP believes that policies aimed at making active transportation modes safer, more accessible, and more equitable –or those that encourage their use– play a key role in shifting mode use away from motorized passenger vehicles (excluding low-speed micromobility such as e-bikes). While such policies measurably reduce GHG emissions, they are most effective when paired with direct disincentives to driving, such as charging the market rate cost for traffic congestion or vehicle parking, eliminating minimum vehicular parking requirements or setting maximums, increasing the federal gas tax, and implementing mileage-based fees.

APBP encourages policymakers to consider measures from a variety of spheres (e.g., land use policies, increasing access to bicycles and e-bikes through bikeshare programs and financial incentives, equitable roadway pricing strategies, etc.), a combination of infrastructure and non-infrastructure measures, and

multiple levels of scale (i.e., individual parcel level, corridor-level, and community-wide) to implement programs that will result in meaningful VMT reduction.

Definitions:

Greenhouse gas (GHG) emissions are "gases released into the atmosphere that trap heat and contribute to global warming. Major sources include fossil fuel combustion, agriculture, and industry. Key greenhouse gases include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated gases. These emissions are a primary cause of climate change."[1]

Carbon neutrality "means having a balance between emitting carbon and absorbing carbon from the atmosphere in carbon sinks. Removing carbon oxide from the atmosphere and then storing it is known as carbon sequestration. In order to achieve net zero emissions, all worldwide greenhouse gas (GHG) emissions will have to be counterbalanced by carbon sequestration."[2]

Vehicle miles traveled (**VMT)** refers to the total number of miles driven by all vehicles within a specific area and time period. It is a key metric used to assess transportation activity, traffic patterns, and environmental impact. According to the US DOT, "Vehicle miles traveled (VMT) is a measure of the total miles traveled by vehicles in a specified region and period of time."[3]

Application:

Reducing demand for energy through lower vehicle miles traveled (VMT) is essential to addressing climate change. Beyond lowering emissions, VMT reduction enhances community well-being by easing congestion, reducing infrastructure maintenance costs, and improving roadway safety.

The transportation sector is the largest contributor to GHG emissions in the U.S. (27% of total GHG emissions)[4] and the second largest in Canada (24%).[5] Within the transportation sector, direct emissions from motor vehicles (including both commercial and privately owned vehicles) make up 70% of these emissions.[6] Since 1970, transportation-related GHG emissions have more than doubled worldwide, with road vehicles responsible for roughly 80% of this growth.[7]

Electrification of vehicles helps to reduce reliance on carbon-based fuels, but significant challenges remain. Electric vehicles eliminate tailpipe emissions, yet still generate indirect emissions from electricity generation, vehicle manufacturing, and roadway and charging infrastructure. Their heavier weight also increases roadway wear and raises safety risks for pedestrians, cyclists, and other vulnerable users. In 2019, an average U.S. electric vehicle emitted about 200 grams of CO^2 per mile.[8] If the electricity grid can be converted to non-fossil fuel sources, researchers are projecting that to fall by 75% to about 50 grams of CO^2 per mile by 2050.[9] However, even if all new vehicle sales are electric by 2035, internal combustion engines will still make up a significant amount of the vehicle fleet for years to come.

Regardless of energy source, both electric and fossil fuel-powered motor vehicles also carry human rights and environmental costs tied to the extraction of minerals and fuels. Reducing VMT helps mitigate these concerns while also producing community benefits such as easing congestion, lowering infrastructure maintenance costs, and improving roadway safety.

Walking and biking, on the other hand, produce virtually no emissions beyond small amounts tied to infrastructure or bicycle production- far less than motor vehicles. In addition to creating fewer pollutants, walking and biking can improve the economic vitality of a community and the physical and mental health of active users.[10]

Efforts to reduce transportation energy demand need to address current demographic and cultural trends as well. Our population is aging: by 2030, one in five people in the U.S. will be 65 or older.[11] Among all adults in the U.S., 26% live with some form of disability, and 11% experience a mobility-related disability.[12] These numbers rise for the population aged 65 and older. Since the 1980s, parents have increasingly driven children to school instead of encouraging walking or biking as was the case in previous decades. Investing in safe and accessible routes to schools, healthcare, parks, grocery stores, and other essential destinations is critical to serving seniors, people with disabilities, parents, and youth while also reducing VMT.

Recommendations:

In an effort to reduce transportation-based carbon emissions and their impacts on climate change, APBP recommends that agencies and governments acknowledge the need to reduce VMT, adopt a goal of reducing per-capita VMT, and adopt a supporting policy of shifting trips to transit and active transportation modes. APBP then recommends implementing a balanced combination of policies, programs, and infrastructure investments to support this mode shift for VMT reduction.

Policies

Policies supporting carbon neutrality and VMT reduction are often aimed at disincentivizing driving.

- **Roadway Pricing**: Congestion pricing, mileage-based fees, and equitable road-user charges reflect the true costs of driving. Evidence shows these strategies reduce demand, improve system efficiency, and provide revenue for sustainable modes. A 2021 Swiss study found that a 10% increase in transportation costs through pricing reduced the external costs of transport (health, emissions, noise, congestion) by 3.1%.[13]
- **VMT-Based Evaluation**: Require VMT as the core metric for project review and transportation analysis. This will result in the evaluation of projects based on how effectively they reduce driving demand, encourage multimodal access, and align with carbon neutrality goals.[14]
- **Parking Reform**: Eliminate minimum parking requirements and introduce demand-based pricing for vehicle storage. These policies reduce car dependency, lower development costs, and free land for more productive uses such as housing, green space, or active transportation facilities. An analysis of parking studies found that a 10% increase in parking prices reduces commute parking demand by over 5% and non-commute trips by about 3%.[15] Limiting residential motor vehicle parking has the potential to reduce up to 13.7% of GHG emissions from resident vehicles accessing a site.[16]
- **Evaluation Criteria Beyond LOS**: Move away from Level of Service (LOS), which prioritizes vehicle delay, and instead emphasize VMT reduction as a more meaningful measure of efficiency, cost savings, and mode shift.[17]
- **Land Use Reform**: Update zoning and planning regulations to support compact, walkable, and mixed-use development near jobs and transit. Research consistently shows that density and mixed land use are among the most powerful predictors of lower VMT.[18]

- **Employer-Based Requirements**: Require large employers and institutions to support sustainable commuting through transit benefits, telework support, carpooling programs, or bicycle facilities to reduce drive-alone commuting and parking demand.[19]
- **Bicycle Parking in New Developments**: Require secure, accessible bicycle parking in new residential, commercial, and institutional developments. Research shows that bike parking availability is one of the most important factors in determining whether people choose to ride.[20]

Programs

Programs supporting carbon neutrality and VMT reduction are often aimed at incentivizing walking and bicycling.

- **E-Bike and Pedal Bike Incentives**: Provide direct financial support to expand access. Rebates, subsidies, and financing programs increase adoption by lowering cost barriers. Studies suggest that up to 57% of car trips could be replaced with e-bike trips under favorable conditions,[21] while recipients of e-bike rebate programs report frequent substitution of car travel with e-bike use.[22] While e-bike programs are most common, supporting people who prefer a traditional pedal bike is also beneficial.
- **Shared Micromobility Systems**: Establish publicly available shared micromobility systems. These systems provide people with easy, affordable, convenient and healthy choices for taking end to end trips or first-and-last mile trips coupled with transit. With 225 million trips over 415 systems, shared micromobility offset approximately 101 million pounds (46 million kg) of CO2 emissions by replacing auto trips across North America in 2024, and 403 million pounds (183 million kg) of CO2 emissions since 2020[22A].
- **Commute Trip Reduction Programs**: Offer transit passes, bike subsidies, and cash incentives for not driving. Stanford University reduced drive-alone commuting from 72% to below 50% through comprehensive incentives,[23] and additional evaluations show reductions of 10–20% among participants.[24]
- **Safe Routes and School Travel Programs**: Invest in safe infrastructure and campaigns that encourage walking and biking to school. U.S. programs have increased active school travel by 20–40%, while Finland achieves 75% of children walking or biking through national support.[25]
- **Transit Fare Innovations**: Eliminate or reduce fares to expand ridership and equity. Kansas City's zero-fare buses increased access for low-income residents, Boston's fare-free bus pilot boosted ridership by 37%, and Luxembourg's free nationwide transit has reduced car dependency.[26]
- **Public Awareness Campaigns**: Implement large-scale efforts like Open Streets events, Walk to School Days, and mobility education campaigns that normalize active and shared modes.[27]

Infrastructure

Infrastructure supporting carbon neutrality and VMT reduction are typically focused on providing safe, comfortable, and connected facilities for people walking and bicycling.

- **Active Transportation Networks**: Expanding, connecting, and completing low-stress bicycle and pedestrian facilities significantly increases walking and biking rates. Networks are most effective when connected to schools, jobs, health facilities, and other essential destinations.[28]
- **Transit Integration**: Coordinating walking and biking networks with transit facilities expands the reach of transit and makes multimodal travel seamless. Improved first/last-mile connections consistently increase transit ridership.[29]

- **Accessibility and Safety Design**: Infrastructure should prioritize seniors, children, and people with disabilities through features like wider sidewalks, accessible curb ramps, traffic calming, and protected bike facilities. These investments improve safety for all users while reducing barriers for vulnerable populations.
- **Secure Bicycle Parking at Essential Destinations**: Provide safe, convenient bike parking at workplaces, schools, transit stations, and commercial areas. Bicycle parking availability is a deterministic factor for whether someone chooses to ride, so secure parking is essential to supporting mode shift.[30]

Resources:

In addition to all measures listed above, the California Air Pollution Control Officers Association (CAPCOA) published a *Handbook for Analyzing Greenhouse Gas Emissions Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* (GHG Manual) in 2021.[31] CAPCOA is a non-profit association of the air pollution control officers from all 35 local air quality agencies throughout California, which was formed in 1976 to promote clean air and to provide a forum for sharing of knowledge, experience, and information among the air quality regulatory agencies around the State. The GHG Manual includes a number of strategies that "aim to reduce VMT and encourage mode shifts from single-occupancy vehicles." A complete list of transportation measures is presented in **Figure 1**. This CAPCOA resource provides formulas to calculate the impact of each strategy, and APBP recommends that agencies become familiar with and implement the VMT reduction measures identified by CAPCOA.

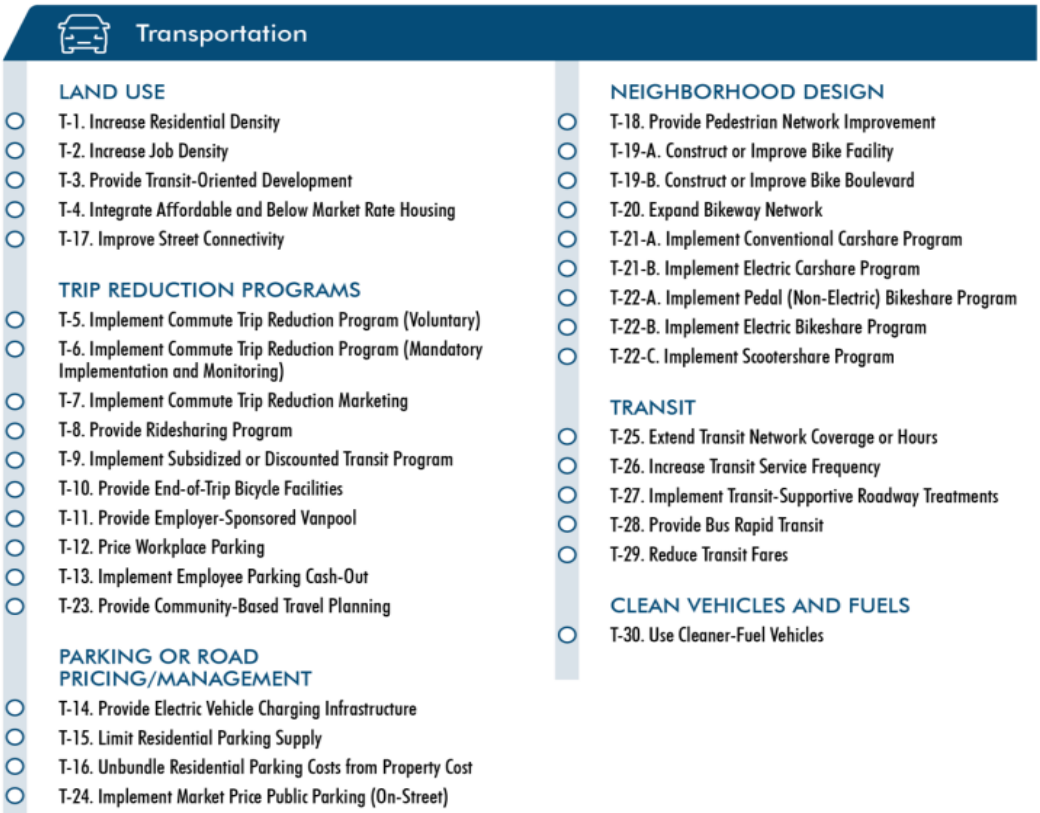

Figure 1: Quantifiable Transportation Strategies for Reducing VMT and GHG Emissions, (CAPCOA 2021, 63)

For further information, APBP suggests these additional recognized sources:

- ***The Road Forward*** reviews international case studies and identifies cost-effective policy measures, such as compact development, pricing, and multimodal investments, that reduce VMT while also lowering emissions.[32]
- **The CAPCOA *Handbook for Analyzing Greenhouse Gas Emission Reductions*** offers detailed methodologies and formulas for evaluating the GHG and VMT reduction impacts of specific transportation and land use strategies, making it a practical tool for agencies implementing VMT reduction policies.[33]
- **The IPCC's *AR5 Climate Change 2014: Mitigation of Climate Change (Transport Chapter)*** synthesizes global research, concluding that electrification alone is insufficient and that VMT reduction through demand management, mode shift, and compact land use is essential to meeting climate goals.[34]
- **MIT's *Insights Into Future Mobility*** examines the limits of electrification and highlights the need for complementary measures such as VMT reduction, active mode promotion, and integrated urban design to achieve sustainable mobility.[35]
- **Seattle DOT's *A Path Toward Equitable Mobility*** provides a toolkit for equitable roadway pricing strategies, demonstrating how pricing can reduce VMT while addressing fairness concerns and supporting reinvestment in sustainable modes.[36]

Endnotes:

1. U.S. Environmental Protection Agency. "Overview of Greenhouse Gases." U.S. Environmental Protection Agency, 16 Jan. 2025, https://www.epa.gov/ghgemissions/overview-greenhouse-gases.
2. European Parliament. *"What Is Carbon Neutrality and How Can It Be Achieved by 2050?" European Parliament*, 26 Sept. 2019, https://www.europarl.europa.eu/topics/en/article/20190926STO62270/ what-is-carbon-neutrality-and-how-can-it-be-achieved-by-2050.
3. Federal Highway Administration. *Vehicle miles traveled (VMT*). https://www.fhwa.dot.gov/policyinformation/glossary.cfm
4. U.S. Environmental Protection Agency (2023). *Inventory of U.S. Greenhouse Gas Emissions and Sinks.* https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sink
5. Government of Canada (2022). *2022 GHG Emissions Report.* https://www.canada.ca/content/dam/eccc/documents/pdf/cesindicators/ghg-emissions/2022/ghg-emissions-en.pdf
6. Intergovernmental Panel on Climate Change (2022). *AR6 Working Group III: Mitigation of Climate Change — Final Draft Full Report.* https://report.ipcc.ch/ar6wg3/pdf/IPCC_AR6_WGIII_FinalDraft_FullReport.pdf
7. Multiple authors (2014). *Chapter 8: Transport*. In *Climate Change 2014: Mitigation of Climate Change (AR5, Working Group III)*. Cambridge University Press. https://www.ipcc.ch/site/assets/uploads/2018/02/ipcc_wg3_ar5_chapter8.pdf
8. Union of Concerned Scientists (2020). *Are Electric Vehicles Really Better for the Climate?* https://www.ucsusa.org/resources/are-electric-vehicles-really-better-climate
9. MIT Energy Initiative (2019). *Insights into Future Mobility*. https://energy.mit.edu/research/mobilityofthefuture/
10. https://www.mass.gov/doc/masstrails-shared-use-path-impacts-study/download
11. AARP (n.d.). *AARP Network of Age-Friendly States and Communities.* https://www.aarp.org/livable-communities/network-age-friendly-communities/
12. Centers for Disease Control and Prevention (n.d.). *Disability Impacts All of Us Infographic.* https://www.cdc.gov/ncbddd/disabilityandhealth/infographic-disability-impacts-all.html.

13. Weidmann, U. et al. (2021). *Swiss study on external costs of transport pricing.* https://www.research-collection.ethz.ch/entities/publication/ed55d065-1771-4e0b-8d36-113ac3bb8826
14. Handy, S. (2023). *Assessment of Options for Quantifying Reduction in VMT.* METRANS/UC Davis. https://www.metrans.org/assets/research/psr%2023-21%20susan%20handy%20brief.pdf
15. California Air Resources Board (2025). *Parking Pricing Policy Brief.* https://ww2.arb.ca.gov/sites/default/files/2025-09/Parking%20Pricing%20-%202025%20Policy%20Brief.pd
16. California Air Pollution Control Officers Association (2021). *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity.* https://www.airquality.org/ClimateChange/Documents/Final%20Handbook_AB434.pdf
17. Washington State Department of Transportation (2023). *The Case for Reducing Vehicle Miles Traveled.* https://wsdot.wa.gov/sites/default/files/2023-06/GMA-Reference-TheCaseForReducingVMT.pdf
18. Ewing, R. & Cervero, R. (2010). *Travel and the Built Environment: A Meta-Analysis.* Journal of the American Planning Association. https://www.tandfonline.com/doi/abs/10.1080/01944361003766766
19. Washington State DOT (2022). *Commute Trip Reduction Program Evaluation.*
20. Dill, J. & McNeil, N. (2013). *Four Types of Cyclists? Examining a Typology to Better Understand Bicycling Behavior and Potential.* Transportation Research Record. https://journals.sagepub.com/doi/10.3141/2387-09
21. Tozluoglu, S. et al. (2023). *Potential of e-bikes to replace passenger car trips.* Chalmers University of Technology. https://research.chalmers.se/en/publication/547597
22. MacArthur, J. et al. (2022). *Impacts of E-Bike Ownership on Travel Behavior.* Transportation Research Part D. https://doi.org/10.1016/j.trd.2022.103189
22A. North American Bikeshare & Scootershare Association (2024). *2024 Shared Micromobility Industry Report.* https://nabsa.net/2025/08/07/2024industryreport/
23. https://sustainability-year-in-review.stanford.edu/2015/features/expanded-offerings-in-transportation/
24. Shoup, D. (2011). *The High Cost of Free Parking (TDM program evaluation).* https://www.shoupdogg.com/book/the-high-cost-of-free-parking/
25. National Center for Safe Routes to School (2014). *Trends in Walking and Bicycling to School.* https://www.saferoutesinfo.org/trends-walking-and-bicycling-school
26. Cats, O. et al. (2016). *The Pros and Cons of Fare-Free Public Transport.* Transport Policy Journal. https://doi.org/10.1016/j.tranpol.2016.04.016
27. Pucher, J. & Buehler, R. (2012). *City Cycling.* MIT Press. https://mitpress.mit.edu/9780262517812/city-cycling/
28. Pucher, J., Dill, J., & Handy, S. (2010). *Infrastructure, Programs, and Policies to Increase Bicycling: An International Review.* Preventive Medicine. https://doi.org/10.1016/j.ypmed.2009.07.028
29. Shaheen, S. & Chan, N. (2016). *Mobility and the First/Last Mile Connection.* UC Berkeley. https://escholarship.org/uc/item/4r07t1hh
30. City of New York Department of City Planning (2007). *The New York City Bicycle Survey (Bike Month 2006).* https://www1.nyc.gov/assets/planning/download/pdf/plans/transportation/bike_survey.pdf
31. CAPCOA (2021). *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity.* https://www.airquality.org/ClimateChange/Documents/Final%20Handbook_AB434.pdf
32. Michael Mehaffy et al. (2022). *The Road Forward: Cost-Effective Policy Measures to Decrease Emissions from Passenger Land Transport.* KTH Royal Institute of Technology. https://vtpi.org/trf2022.pdf
33. California Air Pollution Control Officers Association (2021). *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity.* https://www.caleemod.com/handbook/full_handbook.html
34. Intergovernmental Panel on Climate Change (2014). *AR5 Climate Change 2014: Mitigation of Climate Change, Chapter 8: Transport.* https://www.ipcc.ch/report/ar5/wg3/transport/

35. MIT Energy Initiative (2019). *Insights Into Future Mobility.* https://energy.mit.edu/wp-content/uploads/2019/11/Insights-into-Future-Mobility.pdf
36. Seattle Department of Transportation (2022). *A Path Toward Equitable Mobility.* https://www.seattle.gov/documents/Departments/OSE/ClimateChange/RoadPricingStrategiesRET.pdf

Appendix: Existing Agency Policies

Agencies across North America and internationally have implemented a variety of policies that directly reduce vehicle miles traveled (VMT). In addition to U.S. examples, policymakers should learn from international models. The following examples demonstrate measurable outcomes that support carbon neutrality, reduce congestion, improve safety, and expand access to sustainable modes of travel.

E-Bike Incentive and Rebate Programs

- **Denver, Colorado (E-Bike Rebate Program, 2022–present):**[37]: Denver's rebate program has been one of the most successful in the U.S., offering $400 off a standard e-bike and $900 for income-qualified residents, with additional incentives for e-cargo bikes. The program has been heavily oversubscribed, and evaluations show that recipients use their e-bikes several times per week for commuting and errands, replacing many car trips. Outcomes include reduced congestion, lower household transportation costs, and improved mobility equity.
- **Colorado Statewide E-Bike Rebate Program (2023–present)**[38]: Colorado launched a first-of-its-kind statewide e-bike rebate program, offering income-qualified residents up to $1,100 toward the purchase of an e-bike. The program was designed to reduce transportation emissions, expand mobility options, and make e-bikes accessible to more households. Early data shows that demand has consistently outstripped supply, with application rounds filling within hours. Surveys of rebate recipients indicate that participants report replacing a significant share of car trips with e-bike trips, directly contributing to reduced VMT and emissions.
- **Canadian Electric Bike Incentives**[39]: Across Canada, numerous incentive programs have accelerated the adoption of electric bikes. These include rebates, low-interest loans, sales tax waivers, point-of-sale discounts, and tax credits. In Alberta, the Scrap-It program provides a rebate when residents trade in a car for an e-bike, directly shifting households toward lower- or no-car ownership. These incentives have increased access to e-bikes, reduced barriers to adoption, and encouraged active, low-emission travel.

Congestion Pricing and VMT-Based Evaluation

- **California (SB 743, 2013)**[40]: This law replaced Level of Service (LOS) with VMT as the primary metric for environmental review. Since its implementation in 2020, the policy has redirected development toward walkable, mixed-use projects, reduced pressure for highway expansions, and provided a framework for evaluating projects based on how they reduce driving demand.
- **Colorado (House Bill 19-1261, 2019)**[41]: In 2019, the state adopted legislation requiring transportation projects to reduce greenhouse gas emissions. Within a year of adopting the rule,

Colorado's Department of Transportation canceled two major highway expansions and shifted $100 million to transit. By 2022, a regional planning body in Denver reallocated $900 million from highway expansions to multimodal projects, including faster buses and better bike lanes. These actions show how VMT-focused policies can directly redirect funding toward sustainable transportation options.

- **United Kingdom (London Congestion Charge, 2003–present)**[42]: London's congestion pricing reduced car trips into the city center by nearly 30% and increased walking, cycling, and bus use. The program generates about £150 million annually in net revenue, which is reinvested in transit and active transportation. Evaluations show both traffic reduction and improved air quality.
- **Madrid, Spain (Madrid Central, 2018–present)**[43]: The low-emission zone restricts private vehicle access to the city center. Within one year, traffic fell by 24%, transit and cycling increased, and nitrogen oxides decreased significantly.
- **New York City (Congestion Pricing, approved 2024)**[44]: New York will be the first U.S. city to implement congestion pricing, expected to reduce traffic in Manhattan's central business district by 15–20% and generate over $1 billion annually for transit improvements.

Commute Trip Reduction and Demand Management

- **Washington State (Commute Trip Reduction Program, 1991-present)**[45]: Since its establishment in 1991, the program has led to meaningful reductions in drive-alone commuting. State agencies report steady increases in transit, carpool, and active transportation use, contributing to the state's long-term goal of reducing VMT 30% by 2035 and 50% by 2050. The program demonstrates how employer-based requirements and regional partnerships can shift travel behavior at scale.
- **Washington, D.C. (Commuter Benefits Law, 2016–present)**[46]: Requires employers with 20+ employees to offer commuter benefits, such as pre-tax transit subsidies or bikeshare support. Outcomes include reduced parking demand and higher transit ridership among employees.
- **Stanford University (TDM Program, 2000s–present)**[47]: Stanford reduced drive-alone commuting from 72% in 2002 to below 50% through incentives like free transit passes, high-quality bike infrastructure, and cash rewards for not driving. This demonstrates how comprehensive institutional policies can shift travel behavior significantly.

Land Use Reforms Supporting Compact Development

- **Oregon (House Bill 2001 – Inclusionary Zoning Law, 2019)**[48]: By eliminating single-family-only zoning in larger cities, House Bill 2001 has expanded opportunities for duplexes, triplexes, fourplexes, and cottage clusters. This policy supports denser, more affordable housing near jobs and transit, which in turn reduces sprawl and the need for long car commutes. Early results show that local governments are adopting zoning changes that allow for more compact development, reinforcing the connection between land use reform and VMT reduction.

- **Oregon (Transportation Planning Rules)**[49]: By requiring cities and counties to adopt plans projected to reduce per-capita VMT via TPR 0155, Oregon has set a precedent for integrating VMT reduction into long-range planning. This framework ensures that transportation investments align with climate goals and compact, pedestrian-friendly land use. TPR 0160 requires that cities and counties updating their long range transportation plans adopt a plan projected to reduce vehicle miles traveled.
- **France (National VMT Reduction Commitments)**[50]: France has combined compact development with cycling expansion and low-emission zones. Paris, for example, has tripled cycling trips since 2010 through bike-lane expansion and car restrictions, showing how land use and mobility policies reinforce each other.

Transit Expansion and Fare Policy

- **Kansas City, Missouri (Zero-Fare Transit, 2020–present)**[51]: Eliminating bus fares has increased ridership and improved access for low-income residents, reducing the cost burden of transportation and encouraging mode shift away from driving.
- **Boston, Massachusetts (Fare-Free Pilot, 2022–present)**[52]: Boston piloted fare-free service on three high-ridership bus routes, resulting in a 37% ridership increase compared to pre-pandemic levels, particularly in lower-income neighborhoods.
- **Luxembourg (Nationwide Fare-Free Transit, 2020–present)**[53]: Luxembourg became the first country to make all public transit free, increasing bus and train ridership while reducing car dependency. The greatest benefits have been observed among students, seniors, and low-income riders.

Safe Routes and School Travel Policies

- **United States (Safe Routes to School, 2005–present)**[54]: Federally and state-funded programs have increased walking and biking to school by 20–40% at participating schools. Benefits include reduced school traffic congestion, improved safety, and increased daily physical activity among children.
- **Finland (National School Travel Programs)**[55]: About 75% of Finnish children walk or bike to school. Consistent investments in safe infrastructure and supportive cultural norms have sustained this high rate of active travel, significantly reducing reliance on cars for school trips.

Parking Reform and Management

- **Buffalo, New York (Elimination of Parking Minimums, 2017)**[56]: By removing citywide parking minimums, Buffalo enabled more housing and development projects without excessive parking requirements. Outcomes include lower development costs, greater housing affordability, and reduced car dependency.

- **San Francisco, California (SFpark, 2011–present)**[57]: Demand-based curb pricing reduced circling for parking and lowered vehicle miles driven in pilot areas by 30%. This cut emissions and congestion while improving parking availability.
- **Seattle, Washington (Performance-Based Parking Pricing, 2010–present)**[58]: Adjusting parking rates to demand reduced congestion from parking searches and provided a dedicated revenue stream reinvested into walking and biking improvements.

Smart Growth and Active Transportation Investments

- **Massachusetts (Mode Shift Goal, 2012)**[59]: The Mode Shift Goal and Healthy Transportation Policy Directive ensure that MassDOT projects promote walking, biking, and transit. By embedding mode-shift priorities into both the project review and design process, Massachusetts has institutionalized multimodal planning. The result has been more complete streets projects, stronger integration of transit and bike facilities into roadway design, and a statewide framework that reorients transportation investments toward sustainable mobility.
- **San Diego Association of Governments (Smart Growth Incentive Program – SGIP)**[60]: Through the SGIP, SANDAG provides funding for infrastructure and planning projects that support smart growth and transit-oriented development. For example, in Cycle 5, the program funded National City's efforts to advance transit-oriented development through zoning reforms. By allowing developers to increase housing density without relying on single-family zoning, the program has spurred more compact, walkable development patterns. The SGIP demonstrates how regional funding can successfully align housing and transportation policy to reduce VMT.
- **Netherlands (National Cycling Policy, ongoing)**[61]: With sustained investment, the Netherlands has achieved a national bicycle mode share exceeding 25%. The results include reduced congestion, healthier populations, and affordable mobility for households across all income levels.
- **Norway (EV + VMT Reduction Policies, ongoing)**[62]: Norway pairs its world-leading EV adoption with congestion pricing, parking restrictions, and heavy investment in cycling and transit. This dual approach ensures that electrification complements, rather than replaces, strategies to reduce car dependence.

Appendix Endnotes:

37. City and County of Denver (2022). Denver E-Bike Rebate Program. https://www.denvergov.org
38. State of Colorado Energy Office (2023). Colorado Statewide E-Bike Rebate Program. https://energyoffice.colorado.gov
39. Government of Canada (2022). Electric Bike Incentives and Programs. https://tc.canada.ca/en/road-transportation/innovative-mobility
40. California Legislature (2013). *Senate Bill 743.* https://opr.ca.gov/ceqa/sb-743/
41. Colorado General Assembly (2019). *House Bill 19-1261.* https://leg.colorado.gov/bills/hb19-1261
42. Transport for London (2023). *Central London Congestion Charging.* https://tfl.gov.uk/modes/driving/congestion-charge
43. Ayuntamiento de Madrid (2019). *Madrid Central Low Emission Zone Results.* https://www.madrid.es
44. Metropolitan Transportation Authority (2024). *NYC Congestion Pricing Program.* https://new.mta.info/project/CBDTP
45. Washington State DOT (2022). *Commute Trip Reduction Program.* https://wsdot.wa.gov/planning/commute-trip-reduction
46. District of Columbia (2016). *Commuter Benefits Law.* https://ddot.dc.gov/page/commuter-benefits-law
47. Stanford University (2020). *Transportation Demand Management.* https://transportation.stanford.edu
48. Oregon Legislature (2019). *House Bill 2001.* https://olis.oregonlegislature.gov/liz/2019R1/Measures/Overview/HB2001
49. Oregon Department of Land Conservation and Development (2022). *Transportation Planning Rules.* https://www.oregon.gov/lcd
50. French Ministry of Ecological Transition (2021). *National Mobility and Cycling Policies.* https://www.ecologie.gouv.fr
51. City of Kansas City (2020). *Zero-Fare Transit.* https://ridekc.org/fares/zero-fare
52. City of Boston (2023). *Fare-Free Bus Pilot Results.* https://www.boston.gov/departments/mayors-office/fare-free-pilot
53. Luxembourg Government (2020). *Nationwide Free Public Transport.* https://gouvernement.lu/en/dossiers/mobilite-transport/gratuite-transport-public.html
54. National Center for Safe Routes to School (2014). *Trends in Walking and Bicycling to School.* https://www.saferoutesinfo.org
55. Finnish Transport and Communications Agency (2020). *School Travel in Finland.* https://www.traficom.fi
56. City of Buffalo (2017). *Unified Development Ordinance: Green Code.* https://www.buffalogreencode.com
57. San Francisco Municipal Transportation Agency (2014). *SFpark Evaluation Summary.* https://www.sfmta.com/sfpark
58. Seattle Department of Transportation (2020). *Performance-Based Parking Pricing Program.* https://www.seattle.gov/transportation/projects-and-programs/programs/parking-program/parking-pricing
59. Massachusetts DOT (2012). *Mode Shift Goal & Healthy Transportation Policy Directive.* https://www.mass.gov/orgs/massachusetts-department-of-transportation
60. San Diego Association of Governments (2020). *Smart Growth Incentive Program.* https://www.sandag.org
61. Dutch Ministry of Infrastructure and Water Management (2021). *Cycling in the Netherlands.* https://www.government.nl/topics/cycling
62. Norwegian Ministry of Transport (2021). *National Transport Plan & EV Policies.* https://www.regjeringen.no/en/topics/transport

APBP's policy statement development process/member participation

This policy statement was developed by the APBP Policy Committee. APBP's Board of Directors approved the initial policy statement on April 20, 2023, and a revision on March 19, 2026. APBP members can suggest changes to any policy statement by contacting the association's Executive Director, Policy Committee co-chairs, or a board member. For more information, contact: Lauren Santangelo, Executive Director, at lsantangelo@amrms.com.