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State-Level Policies for Reducing Vehicle-Miles Traveled

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Issue

California has set ambitious goals for reducing its greenhouse gas emissions to 40% below 1990 levels by 2030 and 80% below 1990 levels by 2050. To meet these goals, the state must achieve a 15 percent reduction in total travel by light-duty vehicles by 2050 compared to expected levels.^{1,2} Under current state policies, reductions of this magnitude are unlikely.

Strong empirical evidence supports strategies across four categories that can reduce vehicle miles of travel (VMT) (1) pricing, (2) infill development, (3) transportation investments, and (4) travel demand-management programs³. The state can directly implement some of these strategies, particularly pricing strategies, through state-level policies. Others depend on actions by regional and local governments, though state-level policies can encourage their implementation through incentives, requirements, or other mechanisms.

Research Findings

States have a more direct role in implementing pricing strategies and shaping transportation investments than they do in promoting infill development and transportation demand management programs, but examples of state-level policies are found across all four categories of strategies.

Pricing

Many states are considering pricing strategies as a way to increase funding for transportation and in some cases to manage congestion, but few are planning to use pricing to decrease VMT or GHG emissions. Several states, including New Jersey and Pennsylvania, have substantially increased their fuel taxes, either through one-time increases or by indexing them to inflation or other measures. Others, such as Texas, have expanded the use of tolling. Georgia, Texas, and California have implemented congestion pricing for optional toll lanes. California and New York impose higher tolls on bridges during peak hours and both have considered the cordon-pricing form of congestion pricing, in which drivers pay a toll to travel into a designated area during peak times. A growing number of states is considering mileage-based fees as a replacement for fuel taxes. Following Oregon's lead, California is launching a pilot study of mileage-based fees and several other states are considering such studies. States have not proposed policies that impose higher prices on vehicles with higher per-mile GHG emissions.

Infill development

Development decisions are traditionally the responsibility of local governments at the city and county level, but state policy can influence these decisions. Several states, including California, Arizona, Connecticut, Delaware, and Maryland, have adopted requirements for local governments to consider GHG emissions in their plans. California requires Metropolitan Planning Organizations (MPOs) to develop

KEY TAKEAWAYS

- Under current state policies, it is unlikely California will achieve a 15% reduction in total travel by light-duty vehicles by 2050.
- Strong evidence exists that strategies related to pricing, infill development, transportation investments, and travel demand management programs can reduce VMT.
- The state can directly implement some strategies while others require action by regional and local governments, which the state can encourage through establishing incentives, requirements, or other mechanisms.

“Under current state policies, it is unlikely California will meet its ambitious greenhouse gas emissions goals.”

Findings (continued)

Sustainable Communities Strategies that include land use policies that will reduce GHG emissions. MPOs do not have land use authority, however, and thus rely on grant programs to encourage cities and counties to implement these policies. At the state level, California has created a number of grant programs to encourage infill development and has adopted changes to state policy that encourage infill development; researchers are beginning to examine the impact of these policies. State-level growth management policies, such as those adopted by Oregon and some northeastern states, also help to encourage infill development, at least indirectly.

Transportation investments in bicycling and walking

Many states, including California, have adopted bicycle and pedestrian plans, and several have established grant programs to provide to provide local governments with funding for facilities. While states have often initiated safe-routes-to-school programs, their support for other educational and promotional programs has been more limited. Several states have invested in recreational trails that may also serve as transportation routes. No state has adopted policies to subsidize or incentivize bicycle purchases, though such programs are common in Europe. Overall, states have played a key role in supporting local efforts to shift drivers to walking and biking.

Transportation investments in transit

Transit systems in the U.S. primarily depend on a combination of federal funds and regional and local taxes, but state funding is also important. In California, the state allocates approximately \$2.5 billion to transit each year through several different programs that target specific needs.⁴ States also support transit through the development of statewide transit plans and the implementation of programs that help to fill needs not met by transit agencies.

Transportation demand management

Many employers across the U.S. have voluntarily implemented programs to encourage their employees to choose options other than driving alone to work, but state-level requirements for employer-based trip reduction programs are rare. Washington and Oregon require employers of a certain size and/or in certain locations to adopt such programs. Several states have established telecommuting programs for state employees, but states have not adopted requirements for private employers to establish such programs.

Further Reading

Evidence of the effectiveness of these and other strategies in reducing VMT is summarized in a series of research briefs and technical memoranda funded by the California Air Resources Board, available at: <https://arb.ca.gov/cc/sb375/policies/policies.htm>

¹California Air Resources Board (ARB). 20 Jan. 2017. *The 2017 Climate Change Scoping Plan Update*. https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf (page 104).

²California Air Resources Board (ARB). May 2016. *Mobile source strategy*. <https://www.arb.ca.gov/planning/sip/2016sip/2016mobsrc.pdf>, page (37).

³Boarnet, M. and Handy, S. March 2017. *A framework for projecting the potential statewide vehicle miles traveled (VMT) reduction from state-level strategies in California*. https://ncst.ucdavis.edu/wp-content/uploads/2017/03/State-Level-VMT-Strategies-White-Paper_LP_EB1.pdf

⁴California Department of Transportation. 1 April 2015. *California Transportation Financing Summary, Fiscal Year 2015 - 2016* http://www.dot.ca.gov/docs/CA_Transportation_Financing_Package_2015-16.pdf.

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