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### **Author**

Florin, Alexandria

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# The Road to Climate Neutrality in California is Paved with Good Intentions (and Priced Appropriately)



Alexandria Florin, MURP

## Issue

California has set the goal of being carbon neutral by 2045 to prevent the worst impacts of climate change. According to the California Air Resources Board (CARB), transportation continues to be the largest source of greenhouse gas emissions in the state, and even with a shift to zero-emission vehicles, the path to climate neutrality requires a reduction in per-capita vehicle miles traveled (VMT). The state's multifaceted climate agenda, encapsulated in CARB's 2022 Scoping Plan, sets a clear trajectory for reduction, aiming for a 25% reduction in VMT by 2030 and 30% by 2045.

California's SB 375 mandates the creation of Sustainable Community Strategies (SCS) by all Metropolitan Planning Organizations, which integrate transportation and housing policies to meet regional greenhouse gas reduction targets. When looking at these strategies across California's diverse regions, one strategy that features prominently in regional plans is road pricing. Each SCS includes some combination of highway tolling, road user charges, cordon fees, and parking fees to meet their SB 375 goal. However, the actual implementation of these pricing strategies raises fundamental questions regarding their efficacy and equity impacts, and not all strategies are created equally. For example, many MPOs have plans to introduce highway tolling by building an additional highway lane and tolling it — this would help them relieve congestion, but research on induced demand shows that added capacity increases VMT and its associated greenhouse gas emissions.

As CARB's recent progress report on the implementation of SB 375 indicates, people are driving more miles per day than ever before, and California is not on track to meet its associated climate goals. This tension between proposed implementation plans and state goals could result in badly designed pricing strategies that collectively undermine California's objectives more than they advance them.

## Study Approach

This research seeks to identify the benefits and disadvantages of road pricing, as well as the policy pairings that can be used to maximize the benefits of pricing. The researcher seeks to develop a common understanding of what roadway pricing can and cannot do, and the role it can play in helping California meet its greenhouse gas and VMT reduction goals.

This project required information from two main sources: a series of informational interviews with staff working on road pricing at the local, regional, and state levels and research of case studies. The researcher conducted 14 interviews over Zoom: 8 were with city and MPO-level staff, 5 were with staff at state agencies, and one was with a federal policy advocate. These interviews were conducted anonymously to encourage candid responses and ensure the confidentiality of participants. The researcher synthesized notes from the interviews to identify broad trends and themes across the responses, with particular attention paid

to the commonalities and differences in perspectives. Then, the researcher selected case studies based on projects discussed by interviewees and identified through online research.

## Key Findings

### Benefits of Road Pricing

- **Congestion Reduction:** Road pricing can reduce traffic congestion by incentivizing off-peak travel and alternative modes of transportation. By varying tolls based on demand, traffic flow can be optimized, resulting in more reliable travel times.
- **Revenue Generation:** Road pricing generates funds for transportation infrastructure, addressing the decline in traditional funding sources like gas taxes. These funds can be reinvested in public transit, active transportation, and other sustainable infrastructure projects.
- **Environmental Benefits:** By reducing VMT, road pricing helps decrease greenhouse gas emissions and air pollution, which contributes to meeting California’s climate goals. Encouraging a shift to public transit and carpooling would further amplify these environmental benefits.
- **Equity Considerations:** Properly designed road pricing schemes can address equity concerns and help address existing system inequities. Revenue can be used to subsidize transit fares and provide mobility benefits to low-income households through universal basic mobility programs, which provide access to various transportation options.

### Costs and Challenges of Road Pricing

- **Equity Concerns:** Road pricing can disproportionately affect low-income drivers by charging a regressive fee for road use, burdening households that already have high transportation costs proportional to household income. It is crucial to design pricing mechanisms that use excess revenue to alleviate this disparity.
- **Public Acceptance:** Gaining public support for road pricing can be challenging. Effective communication about the

benefits and use of revenue is essential to build trust and acceptance.

- **Operational Costs:** Implementing road pricing requires significant investment in technology and infrastructure for toll collection and traffic monitoring. Administrative costs for managing and enforcing the system can also be substantial.
- **Induced Demand:** If not carefully designed, road pricing can lead to induced demand, where reduced congestion attracts more drivers, negating the environmental benefits. It is essential to pair pricing with policies that promote alternative transportation modes.

## Recommendations

- **Price Existing Lane Capacity:** To maximize the benefits of road pricing, California should focus on pricing existing lane capacity rather than building new lanes. This approach avoids induced demand and leverages existing infrastructure.
- **Increase Government Transparency:** Clear communication about the need for road pricing, its benefits and the use of revenue is critical. When processes are transparent, it helps build public trust and support while also demonstrating the government’s ability to complete infrastructure projects.
- **Invest in Alternatives to Car Travel:** Revenue from road pricing should fund public transit, active transportation, and provide mobility benefits for low-income households. Programs like Universal Mobility Wallets that provide stipends for various transportation modes can enhance equity and accessibility.

Charging people for the true cost of driving can reduce traffic and environmental impacts from driving, improve equity, health, and traffic safety, while also generating revenue. To meet the state’s goal of achieving carbon neutrality by 2045, California policymakers need to start tolling today for tomorrow’s transportation future.



Florin, A. (2024). Tolling for Tomorrow: Road Pricing as a Climate Strategy in California. (Master’s Capstone, UCLA). Retrieved from: <https://escholarship.org/uc/item/273819w7>

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