

Planning/  
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Information

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**Project Title:**

Near-Term Transportation Energy and Climate Change Strategies: Interregional Transportation Related Greenhouse Gas Emissions Reduction Strategies

**Task Number:** 2387**Start Date:** March 1, 2012**Completion Date:** December 31, 2013**Product Category:** New or improved decision support tool, simulation, model, or algorithm (software)**Task Manager:**

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## Strategies to Reduce Greenhouse Gas Emissions for Interregional Travel

*Improving system efficiency and lowering vehicle miles traveled between regions*

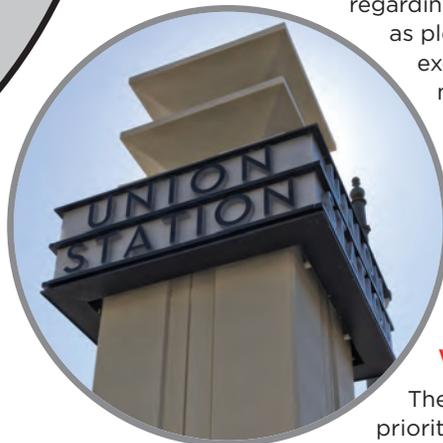
### WHAT WAS THE NEED?

Caltrans is working to address climate change factors in its operations and policies. California's Global Warming Solution Act of 2006, the nation's first global warming legislation, requires the state to decrease greenhouse gas (GHG) emissions to 1990 levels by 2020. California then passed Senate Bill (SB) 375, the Sustainable Communities and Climate Protection Act in 2008, another landmark legislation that calls for Metropolitan Planning Organizations (MPO) to develop strategies to reduce vehicular travel by incorporating land-use change scenarios. To address the transportation sector's role in GHG emissions, SB 391 requires Caltrans to update the California Transportation Plan by December 31, 2015, and every five years thereafter, to identify the statewide integrated multimodal transportation system needed to meet the mandated GHG emission reductions of 80% below 1990 levels by 2050.

A key component of the California Transportation Plan is to identify various regional and interregional GHG reduction strategies. However, data regarding vehicle miles traveled between urban centers is not as plentiful as in within urban areas. In addition, SB 375 excludes interregional travel—trips between or through metropolitan areas—in its planning mandate, therefore MPOs do not need to measure or address GHG emissions from interregional travel in their strategies. Caltrans needed an interregional strategy framework to address this data gap and improve system efficiency and lower vehicle miles traveled to reduce GHG emissions resulting from interregional travel.

### WHAT WAS THE GOAL?

The goal was to provide Caltrans with tools to plan and prioritize the GHG emission reduction strategies for interregional travel on which California should focus.





## WHAT DID WE DO?

Caltrans, in partnership with the University of California, Berkeley Transportation Sustainability Research Center, interviewed representatives from 14 regional planning organizations throughout California to learn about their work and identify and develop strategies to reduce GHG emissions. The interviews addressed interregional travel characteristics, challenges and opportunities, future goals, and lessons learned, primarily related to transportation system operational efficiency and freight planning.

In addition, a comprehensive literature review was conducted on 48 topics, including system efficiency, behavioral change, and strategies for reducing vehicle miles traveled, to understand and evaluate trends in transportation-climate issues. The goal was to help prioritize which GHG emission reduction strategies to focus on, understand the potential magnitude of emissions reduction from strategies where data is available, develop a level of confidence for various strategies, and gauge the social and political acceptability of strategies.

## WHAT WAS THE OUTCOME?

The results of the MPO expert interviews on the technical and political feasibility of various interregional transportation

strategies for GHG emission reduction can be used for post-processing the California statewide travel demand model. The study also summarized the existing literature on the contributing factors to reduce vehicle miles traveled, such as transportation and land use coordination, transportation alternatives, pricing system use, mode shift, and public awareness.

## WHAT IS THE BENEFIT?

Caltrans has a better understanding of the trends in transportation-climate issues, emerging opportunities for sustainable operations and energy infrastructure, the uncertainties and obstacles that regions and the state face, and which interregional GHG emission reduction strategies are feasible in light of technology and budgetary constraints. California is in the forefront of addressing climate change, and the results of this work could potentially assist other state and regional departments of transportation who have yet to develop their own strategies to address GHG emissions in their operations, plans, and policies.

## LEARN MORE

To view the complete report:  
<http://tsrc.berkeley.edu/node/766>

