

Assess New Transportation and Land-Use Patterns in a Carbon-Constrained Future

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PIER Transportation Research
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Fact Sheet

The Issue

California's transportation sector is the single largest contributor of greenhouse gas emissions, producing nearly 39 percent of the state's total carbon emissions that contribute to climate change. California must find strategies to reduce greenhouse gas emissions from the transportation sector. Research addressing additional land-use measures, shifts to less carbon emitting modes, and new policies slowing or reversing growth in vehicles miles traveled will be necessary to meet emissions targets required by state policies and recent landmark legislation such as Assembly Bill 32 (2006) and Senate Bill 375 (2008). Innovative strategies such as aggressive smart growth land-use, transit-oriented development, and alternative transportation modes can help make emissions reductions permanent.

Project Description

This research will identify the magnitude of impacts resulting from integrated land use and transportation strategies under both short-and long-term conditions likely to shape California growth. State-of-the-art planning tools and methods will be used to examine modal estimations for major metro California regions for the combined fuel-savings potential of land-use and transportation measures. This research will differentiate policy options that would allow state and local agencies to more effectively and expeditiously pursue land-use strategies to further reduce vehicle miles traveled and greenhouse gas emissions. This research will also analyze alternatives for integrating improved land use and modal shift components into the California Energy Commission's transportation/fuel demand models.

PIER Program Objectives and Anticipated Benefits for California

- Estimates of combined fuel saving potential of land use and transportation measures.
- Assessments of how land use strategies might reduce vehicle use.
- Findings and recommendations on stronger options for low-carbon transport in California.
- Assessments of how a land-use model can be integrated with the current transportation/fuel demand models.



Transit-oriented development (Picture Credit: www.flickr.com/photos/nickbastian/)

Project Specifics

Contract Number: 500-02-004
Contractor: UC Berkeley Global Metropolitan Studies
Center
Contract Amount: \$250,000
Contract Term: September 2009 to March 2011

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