

Abstract Submission Form



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Paper Title:

An Integrated Land Use/Transportation Modeling Framework for Smart Growth Analysis

Relevant Session/Topic:

Transportation and Land Use Policies
Green House Gas Emission Reduction Strategies

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Abstract: 250 words maximum. Use 12 point Arial font, single space.

Greenhouse Gas (GHG) reduction has been the focal point in the fight against global warming. For example, California passed the nation's first law, Senate Bill 375 (SB375), to control GHG emissions. SB375 sets GHG reduction targets for the eighteen Metropolitan Planning Organizations (MPOs) in the state, and mandates the MPOs to develop regional transportation plans (RTPs) that will meet those GHG reduction targets. The development of RTPs has traditionally depended on the regional Travel Demand Forecasting (TDF) models. Existing MPO TDF models are not adequate for this purpose because they are not sensitive to smart growth factors, such as, design, density, and diversity. The recommended solution from various research is an integrated land use/transportation (LU/TDF) model. There are two major types of land use models in the U.S market, including complex microsimulation models such as UrbanSim and PECAS, and simple GIS-based scenario testing models such as UPlan, and CommunityVis. Neither type of those LU models is suitable to be integrated with existing 4-step TDF models in time for meeting SB 375 requirements. A new land use modeling software, Cube Land, was used to develop a proof-of-concept LU/TDF model for the Community Planning Association of Southwest Idaho (COMPASS) in the Boise, ID area. In this paper, we will report the development process of the integrated LU/TDF model and its sensitivity to smart growth factors, such as, design, density, and diversity, as compared to the elasticities reported in past research.

Abstracts are due by 5:00pm on Monday, January 11, 2010.

e-mail your abstracts to:

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