

Evaluating the Potential for Reduction in Vehicle Miles Traveled in Chittenden County Using an Integrated Land-Use Transportation Model System

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An important means for reducing greenhouse gas emissions is reducing the total number of miles driven (“vehicle miles traveled” or “VMT”). One determinant of VMT is land use: people need to get from home to work, stores and other services, and social engagements. the greater the distances are between these locations, the more driving is necessary.

I use Urbansim, an integrated land-use and transportation model, as well as data from the National Household Travel Survey, to explore possibilities for reducing VMT in Chittenden County. It will compare various scenarios to determine what land use policies and transportation network modifications would result in the lowest projected VMT, and evaluate the simulated results in light of 2009 transportation survey data for the State of Vermont. I will also consider the implications of any significant findings for the county’s residents and municipalities.