Transportation and Energy

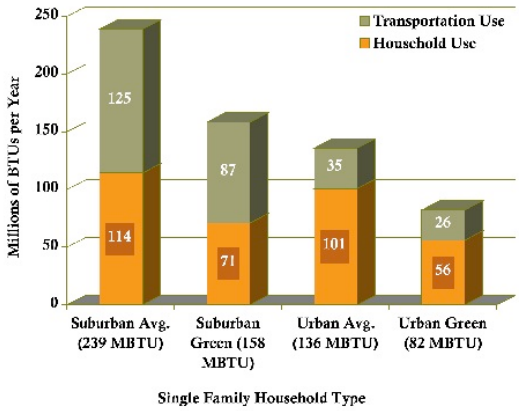
As a mostly rural state, one of the most difficult energy issues facing Vermonters is transportation. In Vermont, transportation accounts for 33% of the state's total energy consumption and a large percentage of many household budgets. Vermont's scattered, low-density development patterns can create a challenge for crafting effective, appealing and affordable solutions and alternatives to driving alone. But with the cost of fuel and increasing carbon emissions, finding solutions is more important than ever before.

Transportation is essential to daily life for Vermont residents who need convenient access to work, shopping, and socializing. Vermont's predominant development pattern makes this challenging, but projects that improve road networks, bicycle and pedestrian facilities, and carpooling can help residents spend less money on fuel, and reduce emissions. In addition, communities can make choices about where to build homes, shopping, and businesses - choices that determine whether a community will be automobile dependent or whether other choices will be available. There are many benefits to rethinking our approach:

- *Energy consumption and carbon emissions:* Transportation accounts for nearly a third of Vermont's energy consumption (compared to the national average of about 25%) and for about 44% of Vermont's carbon emissions.

- *Land use:* Rural living, despite its many appeals, can make frequent transit service difficult, which can result in more personal vehicle use. According to the 2010 Census, 74% of Vermonters commute to work alone. This means increased emissions as well as fewer opportunities for active transportation with bicycling and walking.

- *Transportation affordability:* Just as we talk about "affordable housing," it is important also to consider "housing + transportation affordability." An inexpensive house far away from work and services may have a high transportation cost burden. In 2011, for example, the Center for Neighborhood Technology reported that roughly half of Vermont residents spent more than 45% of their household incomes on the combined costs of housing and transportation – a threshold above which housing and transportation costs are commonly considered unaffordable.



What's being done so far:
Throughout the state, there have been multiple efforts to reduce energy use from driving. An increased number of park and rides and carpooling options, as well more frequent transit, give people traveling long distances on a predictable schedule more options. Other solutions include:

- *Taking the bus or train*: Transit systems throughout Vermont, though limited in their reach, are finding success. With routes expanding each year, there are now better connections between communities, especially in the more densely populated, greater Chittenden County area. Train service between Vermont and other New England states is another available alternative.

- *Carpooling, combined with transit*: Carpooling and taking the bus from a local park and ride is another option. The introduction of park and rides has decreased the use of single-occupancy vehicles, and the state is increasing the number of spaces each year: in 2011, eight new park and ride locations were added throughout the state.

- *Land use planning that promotes transportation choices*: Solving our transportation dilemma will involve land use solutions, too. Vermont's historic areas of compact, mixed-use development was established before the age of the automobile and cheap fossil fuels. This "smart growth" development approach offers an energy-efficient alternative to scattered, low-density living. Towns can update their town plans, zoning bylaws, and subdivision regulations to promote walkability, bicycle and pedestrian paths, and street designs that help both people in cars *and* people outside of cars.

The habits of the past generation — getting in the car and driving 50 miles to work — will become more difficult to afford and, likely, increasingly a thing of the past. In Vermont, taking steps to reduce our transportation energy consumption will require both individual and public actions to change habits, and the built environment – all while supporting transportation goals and a high quality of life.

Related issues:

Related tools:

- Complete Streets
- Mixed Use Development
- Transit Oriented Development

Related case studies:

- Hinesburg Rides

Resources:

Go Vermont—"Connecting Commuters" program has information on different commuting options throughout Vermont. http://www.connectingcommuters.org/
Center for Neighborhood Technology's Housing + Transportation Affordability Index. Explore this interactive tool to compare housing and transportation costs together (covers about half of Vermont) http://htaindex.cnt.org

US Department of Housing and Urban Development Location Affordability Tool. The “My Transportation Cost Calculator” generates transportation cost estimates based on user-entered information, providing households, real estate professionals, and housing counselors customized, apples-to-apples comparisons of housing and transportation costs in different communities. http://www.locationaffordability.info