




Three Transportation Plans

Business-as-Usual BAU	Single-Occupancy Electric Vehicle SOEV	Multi-Occupancy Electric Vehicle MOEV
Gas Vehicle <ul style="list-style-type: none"> Vermonters continue to use internal combustion engines Number of vehicles miles traveled continues to increase at a steady rate. Shared-transit continues at the current rate Average cost to operate a car per year = \$8,000 — AAA 	Electric Vehicle <ul style="list-style-type: none"> Vermonters purchase more Single-Occupancy electric vehicles Shared-transit continues at the current rate Renewable Average savings in fuel cost car/year = \$632 — University of Michigan Transportation Research Institute 	Electric Vehicle + Sharing <ul style="list-style-type: none"> Vermonters embrace shared transit — On-Demand, Micro-Transit in multi-occupancy, electric vehicles. Renewable Bonus — more land downtown freed from the demand of parking for housing & commercial use further reducing the number of miles traveled. Individual's travel cost greatly reduced as more households embrace multi-modal transportation and choose to be car-free, using fixed route train & bus and investing in dynamic "last-mile" shared-transportation.
		
Number of People Transported per Vehicle per Day		
1 ↑ (Sometimes 2-4)	1 ↑ (Sometimes 2-4)	100 ↑
Number of Vehicles in Montpelier		
6,889 Gas Single Occupancy	Currently 40 EV	Initially 10 vans
Montpelier CO2 Emissions Annually		
27,900 tons CO₂ Carbon emissions continue to rise	Reduction of 60 tons CO₂ Carbon emissions are reduced	"There can be an 80% cut in CO₂ emissions when communities embrace electrification and ride-sharing" ITDP & UC Davis
This project can be replicated across the State to reach our reduced CO ₂ goals		

On-Demand, Micro-Transit

THE ANSWER IS POOLING – If the question, is how to ameliorate traffic congestion, the answer is *pooling*. If it's how to reduce climate change, *still pooling*. Social equity? *Also pooling*. Soaring transportation infrastructure costs? *Pooling!* What to do about the potential negative effects of automated vehicles (AVs)? *Pooling*. Going forward, **pooling must be the principal focus of our thinking and actions related to transportation**. Sperling, Daniel; *Three Revolutions: Steering Automated, Shared, and Electric Vehicles to a Better Future*; 2018

DISPLACED PERSONAL CARS – The more people use shared modes, the more likely they are to use public transit, **own fewer cars**, and spend less on transportation overall. APTA *Shared Mobility and the Transformation of Public Transit Report*; 2016

LOWERED GHG – An article written by Alex Walker in the NYU ENVIRONMENTAL LAW JOURNAL in 2017 states that "Micro-transit can serve as a badly-needed alternative to private automobile usage, reducing greenhouse gas emissions from transportation. Most importantly, The Institute for Transportation & Development Policy at UC Davis says: "There can be an **80% cut in CO₂ emissions** when communities embrace **electrification and ride-share**"

LOWERED COST – "Shared micro-transit can offer a **viable alternative to a single-occupancy vehicle** in terms of convenience for the consumer. In partnership with public transit agencies and cities, it also offers a **cost-effective solution** for the provider." KPMG *Accelerating Mobility Report* 2019

SOCIAL EQUITY – In West Sacramento CA, an on-demand, micro-transit service user survey report provides some important findings:

- **Community members of all backgrounds are using the service**
- Young people under the age of 21 appear to be the most frequent users, followed by older adults 50+
- Riders are more likely to come from households with income of \$15,000 - \$35,000
- 66% said they feel safer getting around town
- 59% had a greater sense of independence
- Over 50% said they are visiting local businesses more often or participating in social activities as a result of their use of the rideshare service
- 40% said they are more civically engaged, have better access to healthy foods or medical care, and are spending less on transportation expenses every month

On-Demand, Micro-Transit Riders and Partners Testimonials:

The commuter bus didn't apply to me at all because it didn't take me where I needed to go... Stress at work has been alleviated, and it's probably because of the fact that I'm not starting stressed. I really hate driving.

– Bill O. - On-demand Transit Rider

We have hit on something that is tremendously successful that is getting the ridership we've all been hoping for — at a fraction of the costs of traditional transportation.

– Arlington, TX Mayor Jeff – On-demand Transit Partner