



Supporting Rural Communities Through Transportation Investments

Executive Summary

September 2020



Introduction

Across the Northeast and Mid-Atlantic, policymakers are striving to come up with fair and equitable ways to improve our transportation system, reduce greenhouse gas emissions, and transition to a cleaner future. There are many ways we can work to achieve these goals, and nearly all require significant investment in our aging transportation infrastructure.

One approach currently being considered is the Transportation and Climate Initiative (TCI), which is intended to reduce greenhouse gas emissions from on-road vehicles across the region from Maine to Virginia. The current TCI proposal is a “Cap and Invest” program that would put a limit on allowable carbon emissions from cars and trucks and require fuel distributors to pay for their share of those emissions. This would create a pool of funds for states to use to further reduce emissions through whatever clean transportation investments work best for them and can also support states’ efforts to address key deficiencies in our transportation systems.

This report examines a variety of ways transportation funding—whatever the source—might be used to reduce emissions while addressing deficiencies in rural transportation systems and provides a framework for assessing these policies. Some of the “solutions” examined may also be applicable in more urbanized areas.

We need better ways to get from place to place; this has been repeatedly demonstrated in polling and the public discourse throughout the region. Overall, voters say that the transportation system in their state –including “highways, roads, and public transportation like trains or buses” –deserves poor marks. Over 75 percent of people across the region offer up a “C” or lower grade, while nearly one-in-three provides the poorest marks of “D” (20%) or “F” (12%).

Why focus on rural communities?

After consulting in early 2018 with partner organizations and state agencies involved in the TCI process, The Nature Conservancy identified a need to address a gap in knowledge and research on the transportation needs of rural communities and the solutions that might work best. People in rural areas are often overlooked in discussions about clean transportation investments, at least in part because there are fewer people and fewer emissions coming from these areas.

Engaging these communities and building support for programs that aim to modernize our transportation system is essential for a variety of reasons:

- **Rural residents drive more** and often have no choice but to do so for necessities such as work, school, medical visits, and shopping. Although rural communities only accounted for 18% of the 546 billion vehicle miles traveled (VMT) in the US in 2018, rural TCI counties average 43% more VMT per capita than their urban counterparts. As such, **measures that increase the cost of driving will hit rural residents** harder than many others.
- There are a lot of **lower income people** living in rural counties in the TCI states who spend a large percentage of their income on transportation.
- People in rural areas tend to drive cars that are older and get into more accidents. The number of **fatalities per 100 million VMTs is 58% higher** in rural TCI counties.
- Rural counties have **higher percentages** of two key **transportation access-challenged populations**: the elderly and people with disabilities.
- Rural counties may only be 13% of the overall population of TCI states, but they make up **211 of the 378 counties in the region**. Their support is, therefore, vital to achieving the broad-based consensus necessary to drive change.

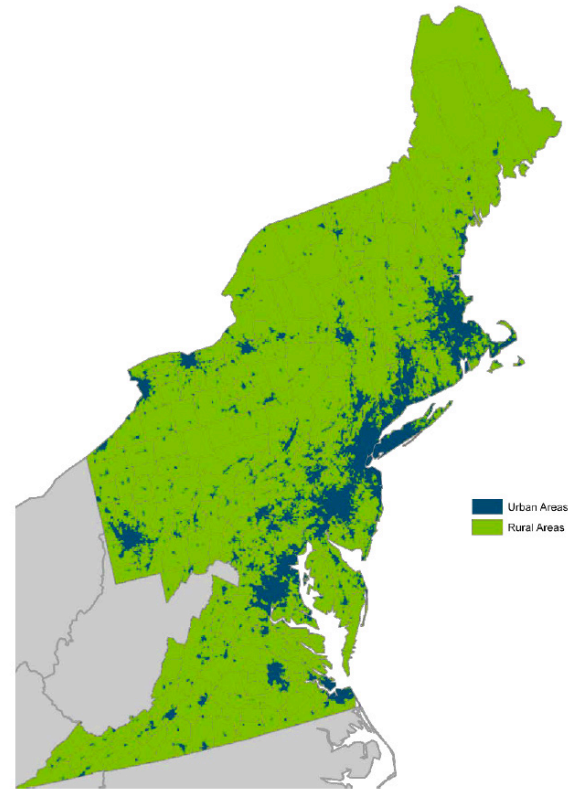
Of course, rural communities are not the only important constituency that must be considered for policy improvements in the TCI process—or in any dialogue about a cleaner and more just transportation future. The transportation needs in urban communities are significant and complex, and the gains that can be made in terms of clean air, quality of life, equity, and economic growth cannot be understated. Underserved and overburdened residents in urban and suburban areas need the significant emissions reductions and access to clean, reliable transportation options that can be realized if we make good policy choices. The conversation about modernizing our transportation system needs to be broad and should be inclusive of all communities in a just and equitable manner.

What is the purpose of this report?

The goal of this report is to offer a methodology for examining potential clean transportation investments that could be made in rural communities using funds that come from a program like TCI, economic stimulus, or from some other mechanism. The goal isn't to be prescriptive, but rather to provide an organized way of thinking that lets policymakers see clearly what rural communities have to gain from transportation improvements. The research was compiled by EBP at the request of The Nature Conservancy.

What are the report's key findings?

The report looks at a variety of potential transportation improvements that could be available in rural and small town communities and examines their potential impact over a range of benefits. These benefits include not only reductions in emissions that cause climate change, but also important factors such as stimulating economic growth, public health and safety improvements, access to reliable transportation, improving equity, and increasing resilience.



Census-defined Urban Areas in the TCI Region

Potential “solutions” examined included:

- **Encouraging** adoption of new and cleaner vehicle technologies for personal transportation;
- **Converting** public vehicle fleets to electric or hybrid electric technologies;
- **Enabling** conversion of freight vehicles that pass through the region to electric technologies;
- **Electrification** of rural truck stops;
- **Facilitating** increased use of rail and marine routes for freight transport;
- **Improving** intra-regional and local rural public transportation and shared mobility options in rural areas; inter-regional transportation in rural areas; access to broadband internet in rural areas; and town centers in small towns.

The systematic review of these improvements yielded insights demonstrating that the potential policies being considered have a lot to offer:



Replacing only 10% of rural personal vehicles with Battery-Electric Vehicles (BEVs) would eliminate roughly 1.4 million tons of GHG emissions every year. Even replacing the same number of vehicles with hybrids would eliminate over 700,000 tons of GHG emissions annually.



Although many think of public transit as an option primarily for urbanized areas, the analysis examines how **investment in smaller local systems, expanding urban systems outwards, and intraregional systems can offer benefits**. Every investment of \$1 million in rural transit results in 100,000 fewer single occupancy vehicle trips, reducing 142 tons of GHG emissions. It also significantly increases access to health facilities, shopping, and jobs for rural residents, particularly the differently abled and the elderly.



Converting public vehicle fleets to electric vehicles could offer lots of benefits. Every transit bus replaced with an electric counterpart saves 52 tons of emissions per year, and school buses can save between 29 and 52 tons per year. Electrification of public vehicle fleets can also result in significant savings on maintenance and fuel costs.



Increasing availability of broadband internet services has become an important consideration in discussion of transportation as it not only increases access to telecommuting, it also has been proven to facilitate job growth in more rural regions, thereby reducing VMTs in rural communities. It also brings economic growth to communities. One World Bank study shows that a 10% increase in broadband penetration in developed countries leads to an average increase of 1.38% to GDP. With the advent of the COVID-19 pandemic, broadband access is increasingly important for equity issues around remote schooling.

It is our hope that as legislators, state agencies, and Governors are considering the impacts of climate change, the need for improvements to our transportation systems, and proposals like TCI that are attempting a region-wide approach to these issues:

- A** Include rural and small town communities in their thinking as they craft solutions
- B** Make policy choices that look to maximize the available opportunities

This will help ensure that they obtain the best economic value, via cost-savings or job creation, while improving transportation access, and reducing transportation emissions.