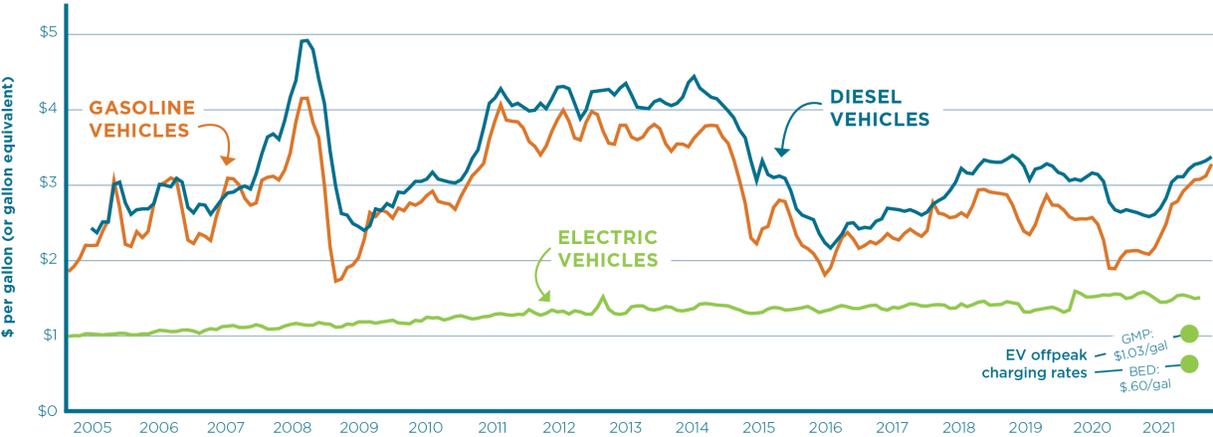


## Examining the Implications of the Transportation & Climate Initiative for Vermont

The Transportation & Climate Initiative Program (TCI-P) is a cap-and-invest program designed to reduce pollution from on-road gasoline and diesel fuels, while generating a new source of funding for clean and equitable transportation investments. If Vermont joins TCI-P, it is expected to receive approximately \$19 million in revenue during the first year of program implementation, which is expected to increase over time to up to \$27 million per year in 2032.<sup>1</sup> This revenue could be invested in cleaner and better transportation options. There are many potential benefits to Vermonters. For example, driving electric vehicles instead of gasoline vehicles can save rural Vermont drivers, on average up to \$1,500 per year on operational and maintenance costs.<sup>2</sup> The chart below illustrates how consumers can save on fuel costs by switching to an electric vehicle. Other potential benefits include building out electric vehicle charging infrastructure, implementing income-based incentives for cleaner vehicles, and making investments in clean and convenient transit options.

### Comparison of Vermont transportation fuel costs, 2005–2021



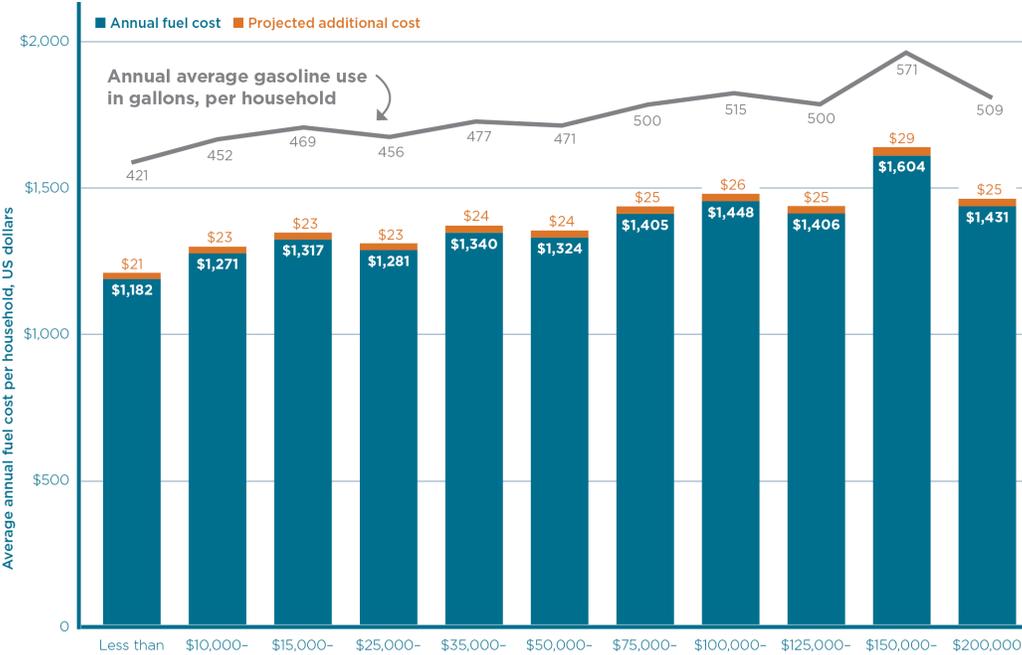
Sources: Gas and Electric — Drive Electric VT (via EIA); Diesel — Vermont Agency of Transportation (VTTrans).

<sup>1</sup> TCI Carbon Market Proceeds Estimator, M.J. Bradley & Associates. <https://www.mjbradley.com/content/carbon-market-proceeds-estimator>

<sup>2</sup> Union of Concerned Scientists, “Clean Transportation Strategies for Rural Communities in the Northeast and Mid-Atlantic States.” November 2020.

While there are many potential benefits to consumers, there are also potential costs as a result of TCI-P. TCI-P revenue would be collected from fossil fuel suppliers who would be obligated to purchase allowances for their pollution coming from their fossil fuel sales. However, the extent to which TCI-P compliance costs may be passed on from fossil fuel corporations to consumers is currently unknown. A key question related to Vermont’s participation in TCI-P that this research brief will try to address is: what are the potential cost implications for Vermont gasoline and diesel consumers as a result of the program? Analysis done by TCI projects that, assuming the

**Annual average fuel cost and projected additional cost per household, by income group**



Source: National Household Transportation Survey, 2017; 'Estimating the Regional Environmental, Health and Economic Benefits and Costs of the TCI Program' March 2021; Vermont Agency of Transportation, October 2021

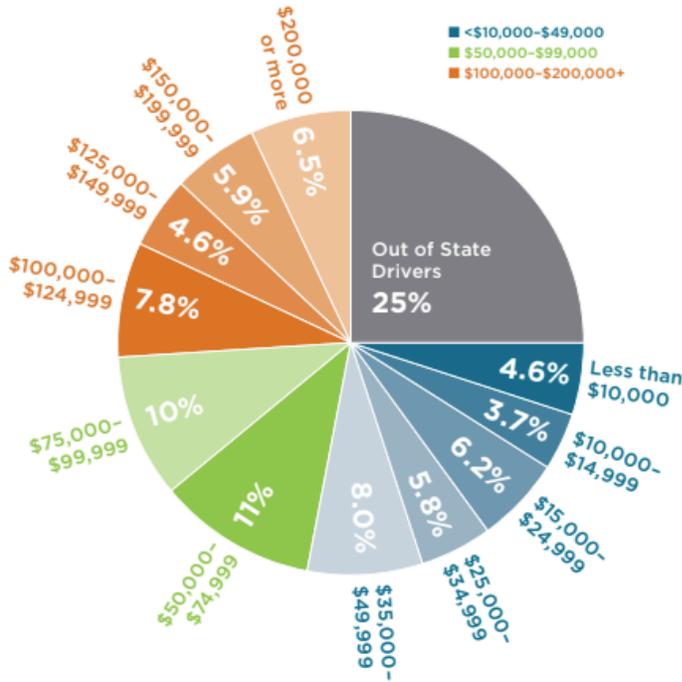
full cost of the program is passed onto consumers, gas prices in the *first year* of program implementation could be roughly 5 cents per gallon higher than they otherwise would be.<sup>3</sup> Household travel data from the National Household Transportation Survey (NHTS) shows that a 5 cents per gallon impact would result in an average additional cost per household ranging from

<sup>3</sup> Transportation and Climate Initiative, "Estimating the Regional Environmental, Health, and Economic Benefits and Costs of the TCI Program," March 2021.

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\$21 to \$29 in the first year depending on household income, as shown above.<sup>4</sup> Higher-income households consume more gas, thus their annual additional cost would be higher than lower-income households. On the other hand, gasoline costs make up a higher share of the household budgets of lower-income households, so the burden of any price increase would be felt more by them. Also seen in the figure, are total average fuel costs per household. This shows that the projected additional cost from TCI-P would be marginal compared to total fuel costs, and is likely to be vastly outweighed by the benefits Vermonters could see from TCI investments.

**Projected share of total cost paid by location and income group**



Source: National Household Transportation Survey, 2017; 'Estimating the Regional Environmental, Health and Economic Benefits and Costs of the TCI Program,' March 2021; Ken Jones, VT Agency of Commerce and Community Development, 2019

Additional analysis on the first-year impacts of the TCI program aims to examine the share of the possible total cost of the TCI-P that households at each income level might be responsible for, shown in the figure to the left. Data from credit card fuel sales shows that roughly 25% of fuel sales in Vermont are made by out-of-state consumers.<sup>5</sup> Combined with the NHTS data, one can see that roughly 50% of the potential total additional cost of TCI-P would likely be borne by out-of-state consumers and households making \$100,000 or more per

year. Absent refunds or other equity-focused investments from the resulting revenue, households making \$50,000 to \$99,999 per year would be estimated to carry 21% of the cost,

<sup>4</sup> The National Household Transportation Survey only shows data at the regional level. This analysis was completed using data for the Northeast region. Comparing results with VT transportation characteristics, the Northeast serves as a decent proxy for Vermont and is the best available data readily at hand.  
<sup>5</sup> Ken Jones, VT Agency of Commerce and Community Development, VisaVue credit card receipt information, 2019.

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and households making below \$50,000 per year would carry 29% of the cost. An important part of TCI-P implementation would be to ensure that it does not have regressive impacts. Further analysis is needed to study how to prevent lower-income households from being burdened with any of this extra cost. Options range from rebates or credits for low-income households to offset any possible increase in fuel prices for these households.

Regardless of the exact policy or rebate mechanism, whether or not TCI-P becomes a net progressive or regressive policy depends primarily on how the resulting revenues are invested. The revenue provides opportunities to reduce costs in a progressive manner for lower and middle-income households. An example of this can be found in the case of the Western Climate Initiative in California, where some of the revenue from the initiative has been used to provide rebates to lower income residents to offset fuel cost increases. From data shared in this research brief, it would only take about 40% of the TCI-P revenues, or about \$7.6 million, to compensate all Vermont households below 120% of the Area Median Income for any additional costs from TCI-P.<sup>6</sup> This would leave about \$11.4 million to invest in pollution-reducing, equity-enhancing transportation options for all Vermonters.

It is important to note that this analysis only focuses on costs during the *first year* of program implementation. As the program progresses and the cap declines, compliance costs would be expected to increase. TCI modeling projects a 5 cent per gallon increase in the first year of implementation. At the same time, it includes a cost-containment mechanism that would prevent that cost increase from being higher than 9 cents per gallon.<sup>7</sup> While long-term price impacts are currently unknown, this mechanism will still be in place to prevent increases from being too high. Further analysis will be needed to determine what the full range of impacts to different groups of consumers might be over time and options to ensure a progressive rather than regressive net impact of the program.

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<sup>6</sup> 120% of Area Median Income is about \$75,000 per household.

<sup>7</sup> Transportation and Climate Initiative, "Estimating the Regional Environmental, Health, and Economic Benefits and Costs of the TCI Program," March 2021.