

1. Pitch Submitted By (Your Name or Organization): Daniel Gatti, Union of Concerned Scientists

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4. Pitch Title: Regional cap and invest program for transportation

5. Pitch Summary:

Transportation is the largest source of pollution in Vermont, but new technologies and transportation strategies give us the potential to build a better, cleaner transportation system for Vermonters.

Electric vehicles are now available in many different models and classes, from passenger cars to SUVs to buses and trucks, and when plugged in to the relatively clean New England grid EVs get the [emissions equivalent](#) of a 100+ mpg conventional vehicle. Ridesharing services have the potential to help link people to public transportation, even in relatively rural communities. And use of public transportation, cycling and walkable neighborhoods are all on the rise. But to scale up these solutions, we need to find new resources for clean transportation investments.

One critical step would be for Vermont to join with states in the Northeast region, California, Ontario and Quebec to create a cap and invest program covering transportation emissions. Such a program would build on the success of the Regional Greenhouse Gas Initiative (RGGI), which has helped significantly reduce pollution from electricity in Vermont while saving consumers money and increasing economic growth. Overall, [independent analysis](#) has shown that RGGI has produced over \$10 billion in health benefits for the Northeast region while reducing climate emissions by 37% and expanding economic growth by \$2.9 billion. Here in Vermont, RGGI has helped fund some of the states most successful efficiency programs, such as Efficiency Vermont's Home Performance program, which has helped weatherize thousands of homes across Vermont.

An expansion of this model to cover pollution from transportation fuel would allow the state to address critical transportation needs, from expanding public transportation services, to electrifying our vehicle fleet, to protecting our transportation infrastructure from the impact of a changing climate.

6. What energy sector(s) does this Pitch apply to? Transportation

7. Which criteria category(ies) does it address? (Check all that apply): Economic Activity, Affordability, Vulnerable Vermonters

8. Scale of impact on Vermont's energy and climate goals: If this proposal came to fruition, how might it move the needle in helping to meet Vermont's energy and climate goals by 2025 and/or 2050? Please outline assumptions and, if available, provide calculations.

Vermont must address transportation to achieve its energy and climate goals. "Transportation accounts for 45% of GHG emissions, and is the state's largest contributing sector". Vermont's 2016 Comprehensive Energy Plan (CEP), Section 4.1.3. The CEP has a thorough discussion of how Vermont

might meet its 2025 goal, including analysis from the Total Energy Study (Section 4.4). The CEP discusses the role of transportation change (Section 4.4.2.2) and considers the role for market based strategies (Section 4.5).

The Georgetown Transportation and Climate Initiative issued a [report](#) in 2015 that showed that a cap and invest program modelled after RGGI, in conjunction with existing vehicle standards and a clean fuel standard, could reduce emissions in transportation in the Northeast by up to 40% by 2030.

More broadly, the investments that we make in electric vehicles and clean transportation today have the potential to trigger more profound changes in the market for electric vehicles, as increasing sales create a virtuous cycle of increasing volume and reduced costs through greater economies of scale. Achieving Vermont's climate goals will ultimately require the near complete turnover of our vehicle fleet from the internal combustion engine to electric vehicles or other zero-emission vehicle technologies.

9. Benefits/costs of this proposal for Vermont and Vermonters: Including, where possible, economic, financial, social, and environmental.

New investments in clean transportation will have significant economic, social, and environmental benefits for Vermont.

Vermont businesses and workers need a transportation system that people can rely on to get them where they need to go. Vermonters who can't drive, either because they are low-income, or too elderly or disabled to drive desperately need better mobility choices. The state should do more to help Vermonters who do drive be able to afford the cleanest and most fuel-efficient vehicles possible, from electric vehicles to the most efficient hybrid and conventional cars, SUVs and pickup trucks. And all Vermonters need transportation infrastructure that is resilient and in good repair, particularly as climate change threatens to bring more frequent storms and flooding.

As Vermont produces no oil of our own, almost all of the money that Vermont drivers spend on gasoline and diesel fuel ultimately leaves the state for other countries or oil-producing regions. Reducing our consumption of oil therefore has broad positive economic benefits for the region and for Vermont. According to Georgetown, this policy could help create up to 125,000 jobs in the Northeast while saving consumers up to \$14 billion by 2030. This program would also provide significant health benefits for the Northeast region, preventing over 35,000 asthma attacks, 633 premature deaths and \$4.9 billion in health costs by 2030.

Further, increasing the number of electric vehicles in Vermont will have significant benefits for ratepayers, and if administered correctly, could facilitate the integration of renewables onto the grid. One [recent study](#) of Northeast states demonstrates that increased use of electric vehicles could reduce electric bills for all customers by between \$104 and \$144 per year.

This program would also address another critical issue facing the transportation system in Vermont, which is the loss of funding from gas tax revenues. Over the next decade the increasing fuel efficiency of our vehicle fleet and the introduction of electric vehicles will erode the real revenues from the state's

gas tax. This is a critical source of funding for transportation in Vermont. This policy will provide some critical resources that can help the state address part of this larger funding challenge.

Of course, none of these investments are free. Under this program transportation fuel distributors will be required to purchase allowances from the state based on their overall emissions. Some of the cost of allowance sales will inevitably be passed on to consumers. If all costs are passed on to consumers, a program similar to the policy enacted by California, Ontario and Quebec would add about 12 cents to the price of gasoline. But as RGGI has shown, by investing the funds from the sale of allowances into energy efficiency initiatives, consumers will overall save money by purchasing less fuel.

10. Decision-makers necessary for this proposal to be adopted or move forward (e.g., Legislature, Governor, a regulatory agency, a business, organization, media outlet, or financing institution, etc.):

The first step will be for Vermont to work with other states, including New York, Massachusetts, and California to develop a Memorandum of Understanding calling for a cap and invest program covering transportation emissions. This could be achieved by having states join California's economy-wide program, or by creating an independent program for the Northeast transportation sector similar to RGGI. Once the MOU is established, the next steps will require legislative action and agency implementation. Gubernatorial support will be critical to program success.

11. Strategy and key considerations: Outline the overall strategy, including gaps, barriers and opportunities for moving this proposal forward.

We believe that a cleaner, better transportation system will improve the lives of all Vermonters, and we encourage the state to reach out to people in all areas of the state to ensure that we are designing solutions that are most relevant to their lives. So we encourage the state to hold listening sessions and do the stakeholder outreach that will help us develop an investment proposal that will help as many people as possible switch to cleaner transportation. Ultimately, we want to build a coalition in support of this policy that is more powerful than the oil companies that will oppose it, and we believe that coalition can include: environmental advocates, utilities, business leaders, local government, environmental justice advocates, public transportation supporters, labor and consumer advocates.

12. Timeline: To meet our 2025 goals, we need some proposals that can be implemented in the next couple of years as well as some "game changers" that will bend the curve even further out. What timeline do you foresee for your proposal to be developed and implemented?

2017: States announce expanded regional effort to address transportation emissions.

2018: States hold regional and state-based stakeholder process to develop best ideas on program design, implementation and investment opportunities. Ultimately states agree to an MOU indicating support for the policy.

2019: States implement the policy through executive and legislative action, program launches.