Reducing the Emissions that Drive Climate Change

Two drivers of our work: climate urgency and economic affordability

During the past two years, as the Climate Council developed this Climate Action Plan, we witnessed -- and in many cases personally lived through -- a series of climate disasters in Vermont, across the US, and globally – reminding us again and again that the human and natural consequences of climate pollution are relentless and will continue to worsen. As UN Secretary-General Antonio Guterres stated at the end of 2024,

"This is climate breakdown — in real time. We must exit this road to ruin — and we have no time to lose." [1]

And Vermonters are still reeling from the high costs of climate disruption following disastrous flooding events across the state in the summers of 2023 and 2024.

In enacting the GWSA the General Assembly recognized, alongside many other states, cities, and nations, that every government needs to accept a measure of responsibility to reduce harmful climate emissions. This has been an enacted goal in Vermont since 2009, and a legal obligation since 2020, and has guided the Council in the preparation of this Plan.

A second main driver of the mitigation actions in this Plan is a concern for affordability. Of course, we need to reduce emissions, but we need to do this while maximizing cost savings to Vermonters and the Vermont economy.

As we considered the costs of *climate action*, we have also considered the high costs to Vermonters of *inaction*. Vermont's fossil fuel bill has averaged over $2.1 billion per year over the last four years, in the same range as the State's budget for K-12 education.[2] Since 2021, the first full year after the GWSA was passed, Vermonters have paid over 8.5 billion to

[1] UN / Guterres New Year Message, December 30, 2024.
[2] Vermont Department of Taxes and Joint Fiscal Office

import fossil fuels, mostly for transportation and heat. About 75% of that money has left the State's economy. [3]

The policies in this Plan are aimed at reducing Vermont's high annual fossil fuel bills by financing greater efficiency in homes, vehicles and businesses. We emphasize that the transition process should proceed at a pace that is achievable, that grows over time, and that delivers long-term cost savings to rural and lower income Vermonters, while moderating even short-term cost effects.

Getting the structure right: why one or more high-level policy drivers are needed in the transportation and thermal sectors

There is a well-known principle in public policy known as the "tyranny of the status quo," describing how the beneficiaries of existing public policies and embedded market patterns make it difficult to enact structural reforms.[4] Vermont's continuing dependence on fossil fuels is an example of this problem.

Vermonters can rightly take pride in our historic initiatives to reduce energy burdens and fossil fuel emissions. But progress has been piecemeal and too slow. To meet the commitments made in the Paris Agreement and Vermont law, and to substantially reduce fossil fuel bills, high-level policy drivers are needed.

Across the globe, the most successful large-scale energy transitions have been driven by two types of policies: (a) performance standards and (b) quantitative pollution caps. In this Chapter we recommend that the legislature and administration continue to examine these options to reduce emissions while creating a reliable revenue source to help Vermonters transition away from fossil fuels.

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[3] In "2022 alone, nearly $2 billion of the approximately $2.6 billion in total fossil fuel spending in Vermont left the state economy." Annual Progress Report for Vermont, 2023 pg.7. In 2023, $1.7 billion spent on fossil fuel left the state. Energy Action Network, "Annual Progress Report for Vermont, 2024", p.23.

[4] See, Milton Friedman and Rose D. Friedman, Tyranny of the Status Quo (New York: Harcourt Brace Jovanovich, 1984). Although Milton Friedman was a leading conservative economist, the book argues that the power of the status quo tends to block reforms whether viewed as moving in a "liberal" or "conservative" direction.

Vermont has plenty of positive examples that such drivers can succeed over time. Think of the decades of experience we have with wastewater cleanup, energy efficiency obligations, and renewable electricity.

We do not recommend adopting performance standards or carbon caps at any cost or regardless of impacts on consumers. Instead, we recommend approaches that can double as consumer-protection initiatives, helping Vermonters with lower and middle incomes to save money and come out ahead. This aligns well with the just transition principles of the GWSA. For example, a cap-and-invest program can provide fuel rebates to low- and moderate-income households, while also supporting investments in low-emitting vehicles and heating systems.

Lowering climate pollution: a suite of recommended actions

While needed to drive change over time, an overarching policy is unlikely to succeed as a stand-alone initiative. It needs to build upon and help coordinate a suite of supporting policies.

To reduce climate pollution in a complex society, there is no single "silver bullet" solution. But even within the category called "silver buckshot" there is a huge range in scale among different sectors, markets, and opportunities.

In Vermont the two largest emitting sectors by far are transportation (39% of Vermont's emissions) and buildings (31%) and this Chapter focuses on reducing emissions and costs there. Industrial processes (8%) and waste management (3%) are smaller-emitting sectors but are covered as well. Agricultural emissions (16%) are addressed elsewhere.

Electric generation (3% of in-state emissions) contributes a small fraction of Vermont's climate pollution. This Chapter recommends continued progress on renewable electricity. Because electricity is also crucial to lowering fossil emissions from vehicles and heating, we recommend actions in the power sector that will accelerate electric solutions generally.

The suite of recommendations in the 2025 CAP necessarily focuses on actions that we judge should be taken by State agencies, including the Agencies of Natural Resources and Transportation, the Department of Public Service and the PUC. Some, but not all, of these recommendations would require legislative action.

We do not know when or if needed actions by the political branches will occur. Our task, according the GWSA, is to recommend actions by which Vermont *could do its share* to avoid the worst consequences of climate disruption. We recommend doing so through strategies that are realistic, affordable, and equitable. We conclude that the mitigation goals of the GWSA can be met with a program of investments in buildings, vehicles, and heating that would also save Vermonters billions of dollars in fossil fuel costs in coming decades.