

# Vermont's 20-Year Climate Action Plans and Efforts in Vermont

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# VERMONT'S CLIMATE PLANS, ANALYSES + EFFORTS:

- **2005:** [Vermont sets GHG reduction goals in statute](#); Gov. Douglas establishes a Commission on Climate Change
- **2006+2007:** Governor Douglas' Climate Commission meets, delivers [final report](#), state sets 80,000 by 2020 WX goal
- **2007-2008:** [Gov. Douglas joins Regional Greenhouse Gas Initiative](#) – a cap and invest program for electric sector, State commissioned [“Affordable Heat: A Whole-Buildings Efficiency Service for Vermont Families and Businesses”](#) report issued
- **2010/2011:** [Vermont Comprehensive Energy Plan update](#); sets 90 by 2050 total renewable energy goal
- **2012/2013:** [Vermont Thermal Efficiency Task Force created](#); year-long process, report and rec for a fuel charge
- **2014:** [VT undertakes a Total Energy Study, undergirded by a REMI economic analysis](#)
- **2015/2016:** Vermont update's Comprehensive Energy Plan – reaffirms 90% total renewable energy commitment
- **2017:** [Gov. Scott \(re\)commits to Paris Accord, joins VT to U.S. Climate Alliance; creates a VT Climate Action Commission](#)
- **2018:** After a year-long process, [Gov. Scott's Climate Action Commission releases final report](#)
- **2020:** [Global Warming Solutions Act enacted](#); [Vermont Climate Council commences](#), [VT Public Utility Commission commences an All Fuels Energy Efficiency examination and issues final report \(Jan. 2021\)](#) – PUC recommends fuel charge
- **2021:** [Initial statutorily required Climate Action Plan adopted](#); informed by initial Pathways Analysis
- **2022:** [Vermont's Pathways Analysis report updated \(for VT Climate Council to ID ability and cost to meet GHG targets\).](#)
- **2023:** [The Analysis of Buildings / Thermal Energy Sector Emissions Reduction Policies for Vermont](#)

*The results: Every modeled set of pathways to meet Vermont's emissions reductions conducted since 2020 have been calculated to result in net positive societal benefits between now and 2050, ranging from about \$2 billion to \$3.5 billion.*

# 2005: Vermont Establishes GHG Reduction Goals

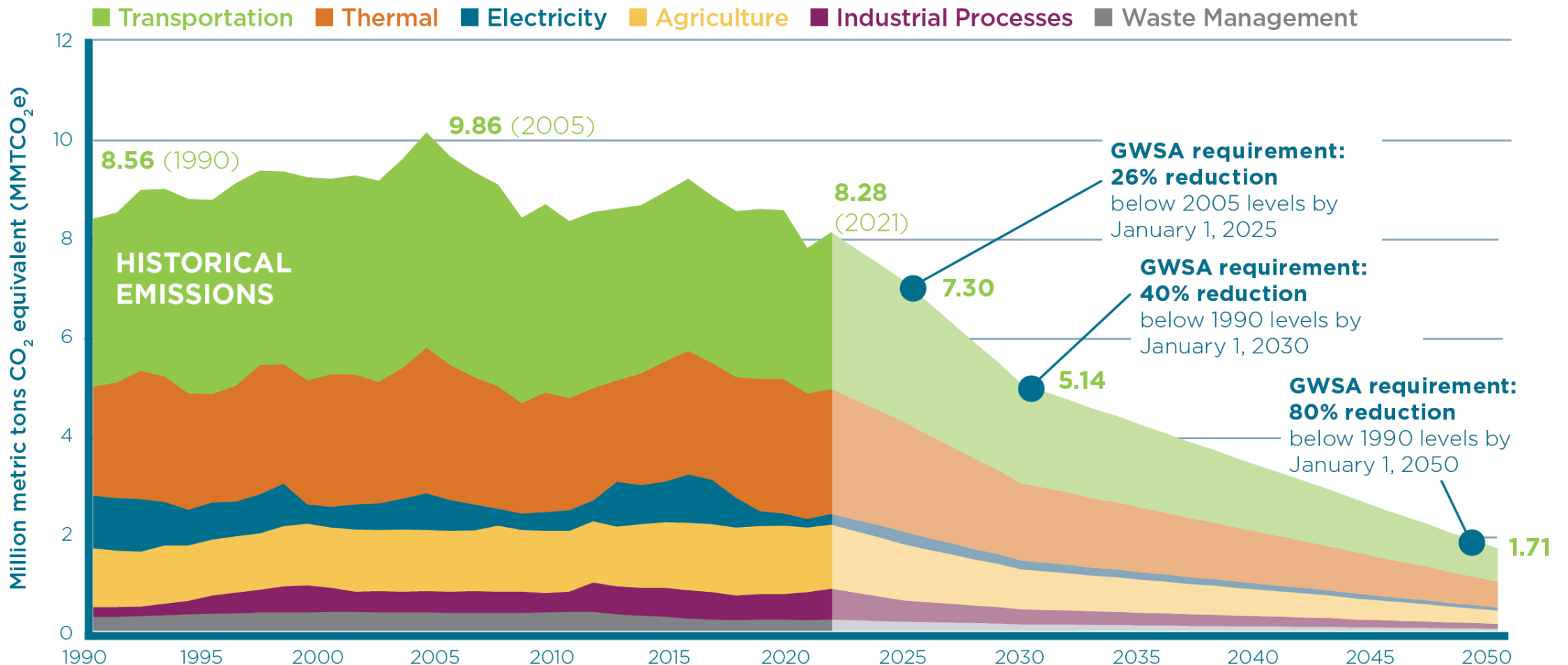
## § 578. Greenhouse gas reduction goals

(a) General goal of greenhouse gas reduction. It is the goal of the state to reduce emissions of greenhouse gases from within the geographical boundaries of the state and those emissions outside the boundaries of the state that are caused by the use of energy in Vermont in order to make an appropriate contribution to achieving the regional goals of reducing emissions of greenhouse gases from the 1990 baseline by:

- (1) 25 percent by January 1, 2012;
- (2) 50 percent by January 1, 2028;
- (3) if practicable using reasonable efforts, 75 percent by January 1, 2050.

# 20 Years Later: We Are Not on Track

## Vermont's historical GHG emissions and future requirements



**Source:** Vermont Agency of Natural Resources, "Vermont Greenhouse Gas Emissions Inventory and Forecast: 1990-2021," 2024. **Note:** A small amount of emissions from the "fossil fuel industry" category (i.e., fugitive emissions from fossil gas pipelines in VT), accounting for 0.4% of Vermont's overall emissions in 2021, does not show up on this graph.

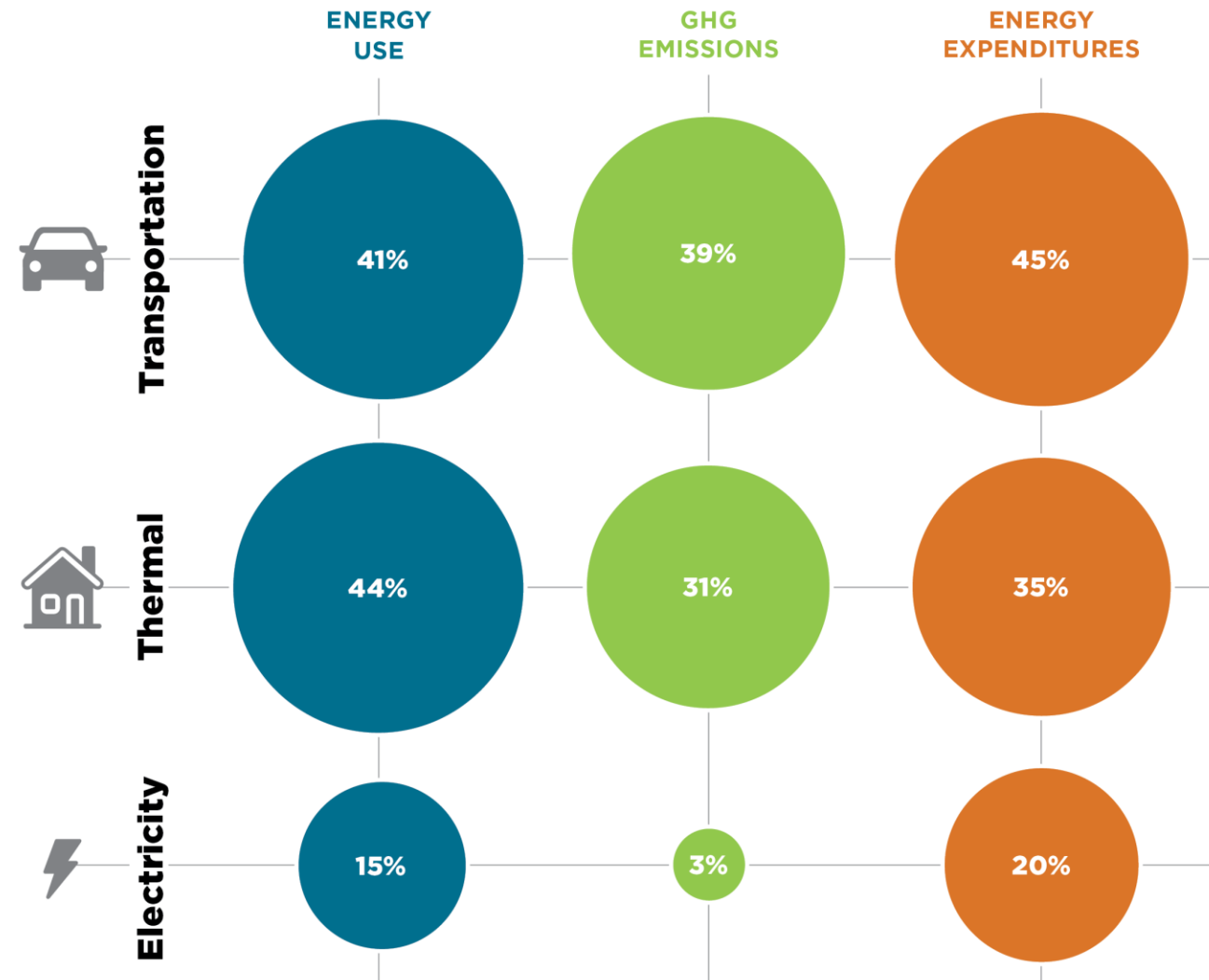
# Work We've Done, Work to Do:

Vermont has made significant progress in the electric sector, through focused efficiency efforts, a Renewable Energy Standard and other efforts.

**Because we have obligated the electric sector to help Vermonters cut energy costs and climate pollution.**

Despite two-decades worth of efforts – three climate commissions and myriad task force's, expert analysis, significant public engagement and multiple attempts – Vermont has not followed the recommendations to implement essential, cost-saving policies or approaches in our most polluting sectors.

**Economy-wide, well-designed approaches for the thermal and transportation sectors are key, e.g. a cap-and-invest program and/or a Clean Heat Standard**



Sources: For 2022 energy use: Vermont Department of Taxes, 2024; EIA State Energy Data System (SEDS), 2024; Vermont Department of Public Service, 2022 Electric Utility Resource Survey. For 2021 GHG emissions: Vermont Agency of Natural Resources, "Vermont Greenhouse Gas Emissions Inventory and Forecast: 1990-2021," 2024. For energy expenditures: Efficiency Vermont, "2023 Vermont Energy Burden Report," 2023. **Note:** GHG emissions do not add up to 100% because only the energy sectors are shown, which are responsible for 73% of VT's total emissions (27% of GHG emissions come from non-energy sectors). Transportation represents a larger share of emissions and energy use than shown in previous years due to a change in the data inputs and methodology of VT's most recent GHG Emissions Inventory.

# The High Cost of Ongoing Inaction

The Intergovernmental Panel on Climate Change – the world’s leading climate scientists – have made clear that time is running out and the high-costs and consequences of ongoing, insufficient action are – and will be -- drastic. **To do that, significant and swift fossil fuel reduction is essential.**

## Costly Consequences: Floods of 2023 and 2024

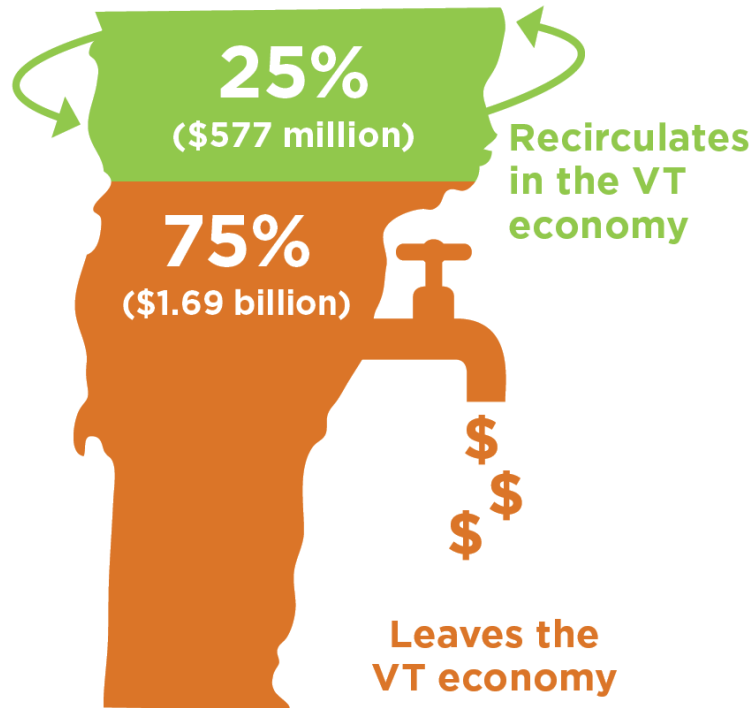


**The High and Price-Volatile Cost of BAU:** When Russia invaded Ukraine, the cost of #2 fuel oil in Vermont rose by over \$2/gallon in the span of a year.

**Vermonters cannot afford the high-cost, inequitable and uncertain status quo.**

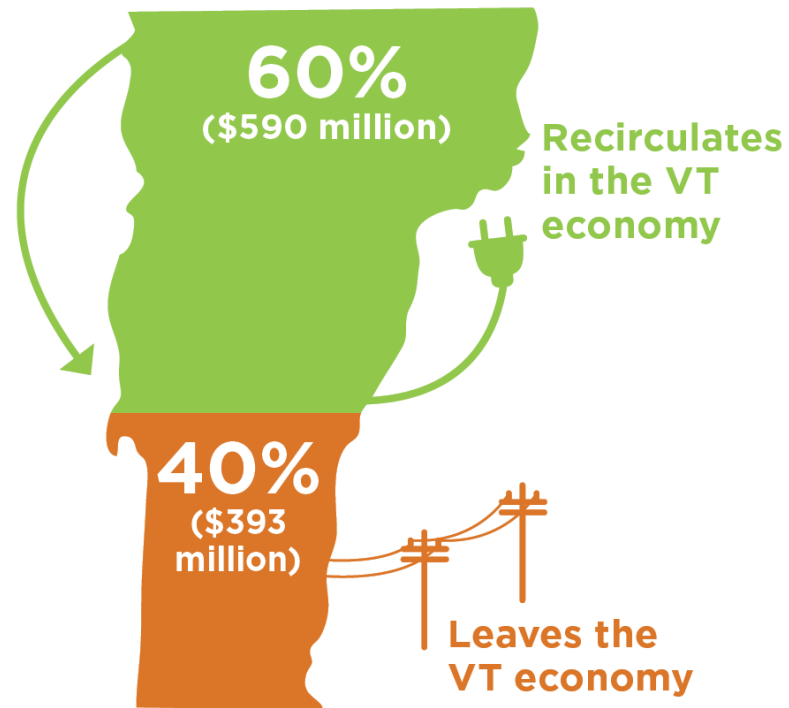
# The Economic Opportunity in Reducing Reliance on Fossil Fuels

## Vermont fossil fuel spending, 2023



**Sources:** Fossil fuel spending: Vermont Department of Taxes, 2024; VGS, 2024. Dollar recirculation share: Ken Jones, Senior Fellow for Economic Analysis, 2024. **Note:** This graph includes spending on thermal and transportation fuels only.

## Vermont electricity spending, 2023



**Sources:** Electricity spending: Vermont electric utilities. Dollar recirculation share: Ken Jones, Senior Fellow for Economic Analysis, 2024. **Note:** Dollar recirculation share was updated in January 2025 to reflect out-of-state transmission costs.

# Vermont's 20-Year Efforts to Reduce Climate Pollution and Save Vermonters Money

- A high-level recap of Vermont's efforts to tackle this challenge.
- A high-level recap of the results and findings of those efforts.

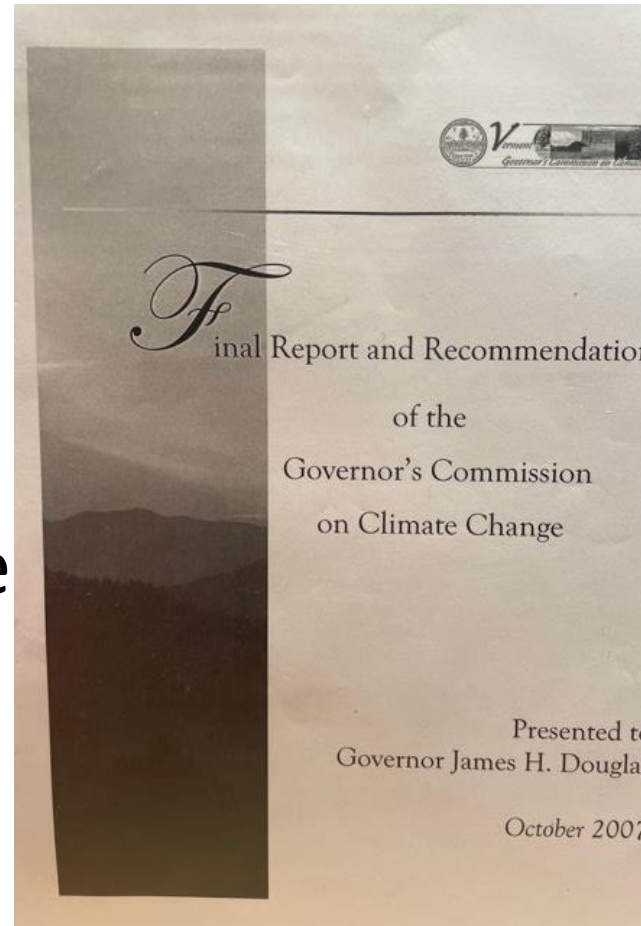
*In summary: Moving Vermonters off fossil fuels through a core focus on efficiency and reducing energy consumption, fuel and mode switching and creating a more clean, renewable grid are fundamental strategies.*

- It will require upfront investment but the net benefits are significant and were often shown to far outweigh the initial cost.
- Program and policy design can mitigate negative (cost) impacts to Vermont families and businesses.



# We Don't Need Another Plan. We have three plans with recommendations to implement and build on, including one underway:

- Governor Jim Douglas' 2007 Commission on Climate Change report
- Governor Scott's 2019 Climate Action Commission Report
- The 2021 Initial Climate Action Plan – and update underway.



VERMONT CLIMATE ACTION COMMISSION

EXECUTIVE ORDER NO. 12-17

REPORT TO THE GOVERNOR

JULY 31, 2018

INITIAL VERMONT CLIMATE  
ACTION PLAN

Vermont Climate Council  
DECEMBER 2021

**We Have Useful and Significant Work to Build on  
to Develop Cost-Effective, Equitable Solutions.  
*We simply need to act.***



# 2008 and 2011 – Affordable Heat Report(s):

In 2008 Vermont established statutory goals to make at least ¼ of its housing stock 25% more energy efficient by 2020, which represented a target of 80,000 homes.

- The state has several entities with fairly effective programs working towards that goal...
- Despite the efforts of these programs, Vermonters are not investing in energy efficiency and are losing the opportunity to save money because of many barriers.



## **AFFORDABLE HEAT:**

**Whole-Building Efficiency Services  
For  
Vermont Families and Businesses**

**The Regulatory Assistance Project**

June 2011

# Thermal Efficiency Task Force - 2013

Many useful outcomes and recommendations. A key finding:

*“Raising \$267 million in new funding for program costs and incentives over this 7-year period represents a major financial commitment on the part of the State. However, this investment combined with current funding will leverage \$687 million in private sector financing and investment, stimulating job creation, lender activity, and the recycling of funds in Vermont’s economy, instead of sending Vermonters’ money out of state (and likely out of the country) to pay for fossil fuels. These public and private investments will result in a net present value of over \$2 billion in heating fuel savings to Vermonters.”*



# **2014 Total Energy Study Results Led by Public Service Department and Consultants**

## **KEY TAKEAWAYS FROM THIS ANALYSIS:**

**Meeting Vermont's energy and climate goals is affordable and achievable, but will require real change in both policy and technology.**

The TES found three primary pillars are needed for this transformation:

1. Aggressive and deep efficiency
2. Fuel and mode switching
3. Increased renewable energy supply

# 2021 PUC Analysis: Recommendations + Conclusions

“Following 18 months of investigation, we conclude that the single most important step for Vermont lawmakers to take is to establish stable, sizable, long-term funding for decarbonizing the heating and transportation sectors. This funding is the linchpin to achieving Vermont’s goals. Experience to date demonstrates that dedicating only a modest amount of funding toward these goals results in only modest gains.”

...

“Without a stable, sizable stream of public funding in those two (transportation and thermal) sectors, Vermont will not meet its carbon-reduction commitments. ***Furthermore, weatherization of buildings, fuel switching in heating, and decarbonization of the transportation sector offer opportunities for improved health, environmental quality, economic development, and savings for individual Vermonters.***”

# PUC's 2021 Recommendations:

1. Achieve financial benefits for Vermont from the regional Transportation Climate Initiative -- a cap and invest program that was over a decade in the making that fell apart in November 2021 – right before the first required Climate Action Plan was adopted
2. Collect a Thermal Efficiency Benefit Charge on the sale of fuel oil, propane, and kerosene.
3. Gradually increase the fuel tax to benefit more low-income Vermonters.
4. Support the existing resilient ecosystem of program administrators and market actors. An all-fuels efficiency entity or new program is not necessary.

# 2022 Transportation Addendum to the Climate Action Plan

“The only currently known policy options for which there is strong evidence from other states, provinces and countries of the ability to confidently deliver the scale and pace of emissions reductions that are required of the transportation sector by the GWSA are one or a combination of:

- a) a cap and invest/cap and reduce policy covering transportation fuels and/or
- b) a performance standard/performance-based regulatory approach covering transportation fuels

**Importantly, based on research associated with their potential implementation, these approaches can also be designed in a cost-effective and equitable manner.”**



# Where Are We Now?

We lack – and fundamentally need – a primary policy or regulatory approach in both the thermal or transportation sectors (with the exception of the Advanced Clean Cars program for transportation). The state has identified strategies that we could and should be pursuing.

- What the 10+ year Transportation and Climate Initiative regional collaboration was trying to address for transportation
  - What an ongoing exploration of a cap and invest program is trying to solve for now
- What the Clean Heat Standard was/is trying to address for buildings
  - A potential cap-and-invest program could cover the thermal sector, as in other jurisdictions