Senate Agriculture | *January 26, 2022*

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- Council member appointed by the Senate Committee on Committees to represent a Vermont based organization with expertise in energy and data analysis
- Co-Chair, Science & Data subcommittee
- Member, Cross-Sector Mitigation subcommittee
- Member, Council Steering Committee

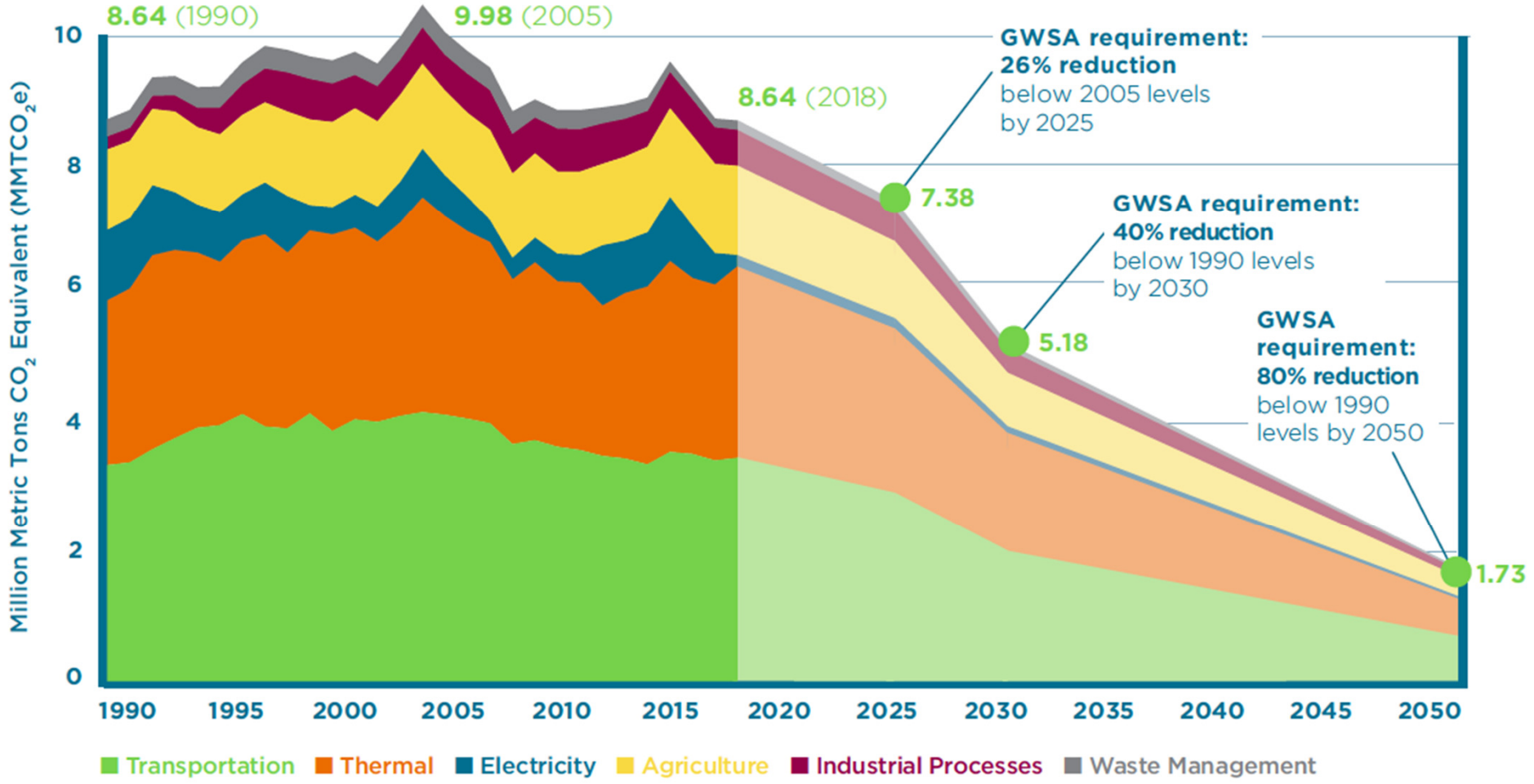
Lauren Oates

- Council member appointed by the Senate Committee on Committees with expertise in the design and implementation of programs to increase resilience to and respond to natural disasters resulting from climate change
- Member, Agriculture & Ecosystems subcommittee
- Member, Council Steering Committee

Context - Emissions Reduction

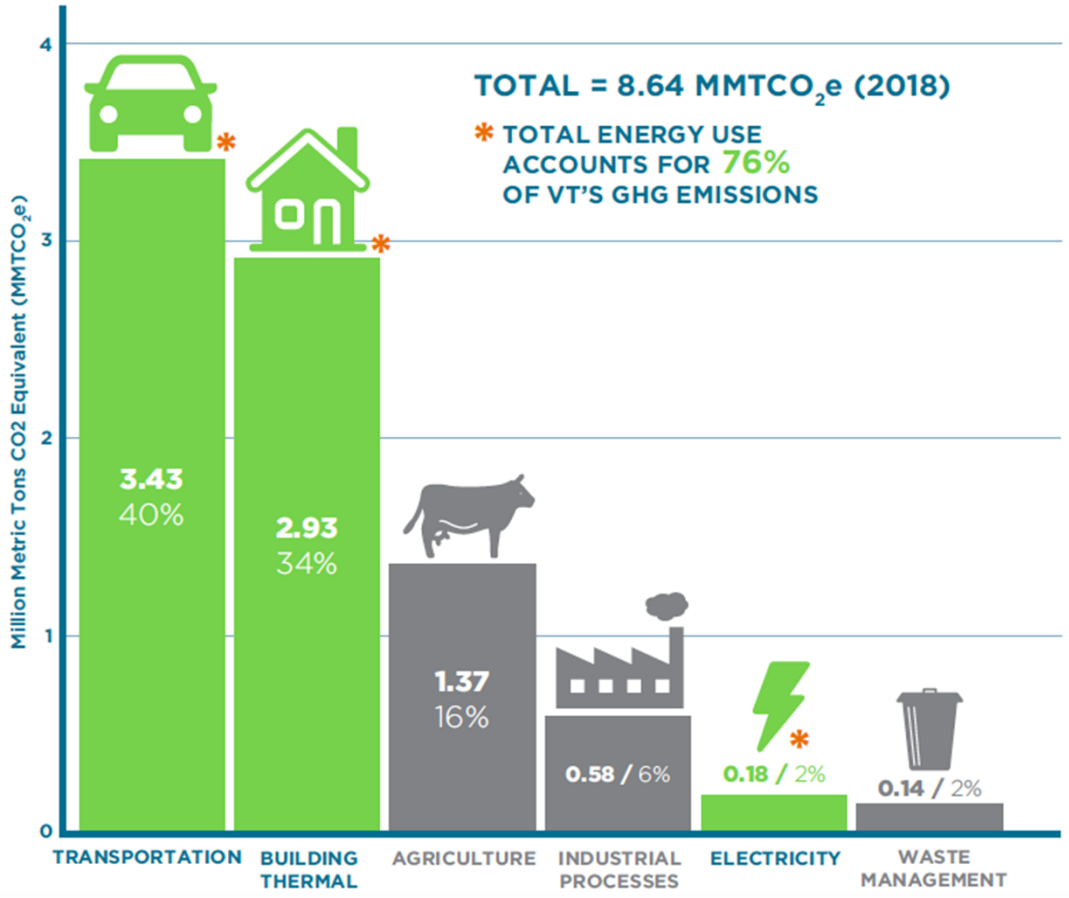
- To avoid the worst impacts of a destabilized climate, the Intergovernmental Panel on Climate Change (IPCC) tells us we have **less than a decade to cut our greenhouse gas (GHG) pollution in half**.
- Vermont first passed GHG emissions reduction "goals" in 2007… and then proceeded to miss them every year. Without policy frameworks beyond the efficiency and the electricity sectors, we have done little to address our **two most polluting and highest-cost energy sectors: transportation and heating**.
- No state, no country can solve the climate crisis alone. **We all have to do our part** – especially places like VT that have long used fossil fuels and, on a per capita basis, have contributed more to the problem than others, especially island nations and poorer countries.
- The Climate Action Plan passed Dec. 1, 2021 by the Vermont Climate Council provides real policy solutions for our most polluting sectors, to finally get on track and do our part. It is a plan **designed not only to cut climate pollution but also to advance an equitable transition that saves Vermonters money, strengthens our economy, and helps prepare our communities for extreme weather and other anticipated climate impacts.**

Vermont's historical GHG emissions and future requirements



Source: Vermont Agency of Natural Resources, Vermont GHG Emissions Inventory and Forecast (1990-2017), 2021.

Vermont's GHG emissions by sector, 2018



Source: Vermont Agency of Natural Resources, Vermont Greenhouse Gas Emissions Inventory and Forecast (1990-2017), 2021.

CAP Recommendations - Emissions Reduction

Two Highest Impact Policy Recommendations

- Implement a **Clean Heat Standard**, designed to achieve the thermal sector's share of pollution reduction (**34%** of needed total by 2030) and help fund weatherization and low-cost clean heat solutions.

- If and when regional viability exists (i.e., MA, CT come back to table or NY or other states join), join the **Transportation and Climate Initiative Program** (TCI-P), which is designed to reduce transportation sector emissions by approx. **26%** across participating jurisdictions)

Next Steps on TCI-P

- **Without TCI-P, the Climate Action Plan simply doesn't add up to meeting our emissions reduction requirements**. This is both because we would lack a clear cap on transportation sector pollution and because we would not have dedicated future revenue to leverage federal dollars and invest in clean transportation alternatives through 2030 and beyond.
- The **Council will work in early 2022 to identify recommended alternatives to TCI-P**, in case it does not prove to be regionally viable, and to make up the gap it would create. Initial ideas to be explored include (but are not limited to):
  - A **Clean Transportation Standard** (like the low-carbon fuels standards in place in CA, OR, and WA and being considered by NY, MA, and other states)
  - Joining Quebec, California, and Nova Scotia in their cap and invest program, known as the **Western Climate Initiative (WCI)**, at least to cover transportation fuels.
  - A very strong **"true cost pricing" or "vehicle efficiency price adjustment" policy for new vehicle purchases**, providing up-front rebates for more efficient vehicles in a class (ex. F-150 Lightning) and a fee that accounts for the lifetime costs of pollution of very inefficient fossil models (ex. Ford Raptor), in a revenue neutral way.

Additional Recommendations of Especially High Importance for Emissions Reduction

Weatherization at Scale

Invest in weatherizing the homes and apartments of **90,000 low and moderate-income Vermonters**, providing a win-win-win of energy cost savings, health benefits, and pollution reduction.

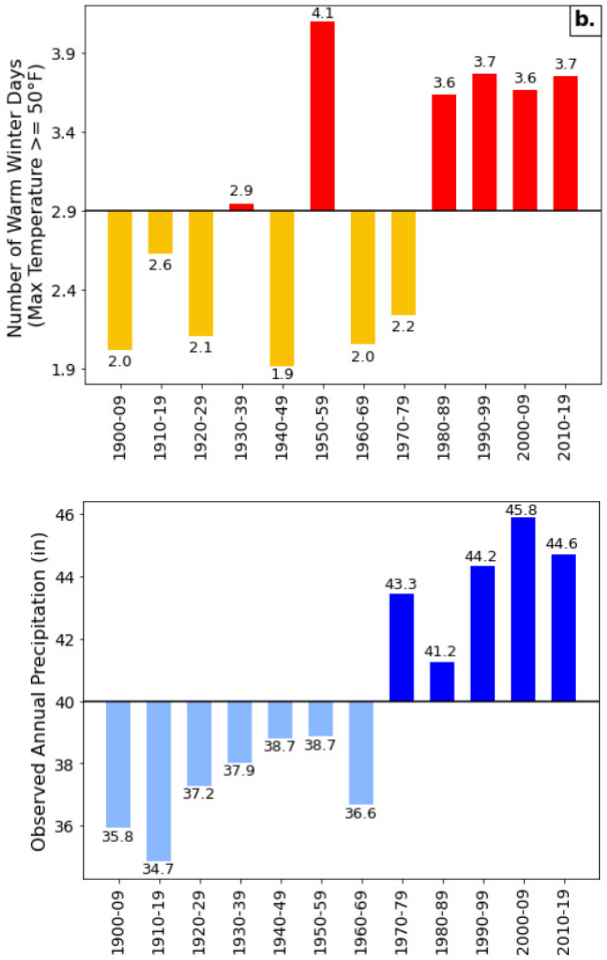
Advanced Clean Cars II and Advanced Clean Trucks

Join CA and NY in this program, which will ensure that a minimum of **95,000 electric vehicles are provided for sale in VT between model year 2026 and 2030**. That many electric vehicles replacing fossil vehicles gets us about **10% of the way to our 2030 emissions reduction requirement.**

Context – Adaptation & Resilience

- **Impacts of climate change are already here** and will continue to worsen over the course of the next several decades, regardless of *necessary* emissions reductions effort.
- The National Climate Assessment (NCA) and Vermont Climate Assessment (VCA) and both acknowledge that **the northeast region, including Vermont, is getting both warmer and wetter**. Our seasons are shifting, with the most noticeable changes to our winters, impacting Vermont's economic sectors.
- **Increased precipitation and extreme weather events are already on the rise** and cost Vermont taxpayers millions of dollars every year in public infrastructure damages alone, and take significant toll on public health and safety, our economy, and our natural and working lands. These impacts are and will continue to be felt more heavily by disadvantaged, low-income, and rural Vermonters.
- Addressing these impacts by **promoting adaptive measures that build resilience will be critical to Vermont's viability and long-term success**.
- Unlike the very clear, quantitative requirements for emissions reductions**, the GWSA lacks measurable goals for climate adaptation and resilience**. Though understandable given a lack of universally agreed-upon adaptation and resilience metrics, the absence of clear targets did make elevating the equal importance of adaptation and resilience efforts alongside mitigation challenging during CAP development. This will likely prove true during budget deliberations. **It will be key to advance complementary policy solutions that address all pillars of climate action**.
- The Climate Action Plan passed Dec. 1, 2021 by the Vermont Climate Council provides **real policy solutions to create a more adaptive, climate-resilient Vermont**.

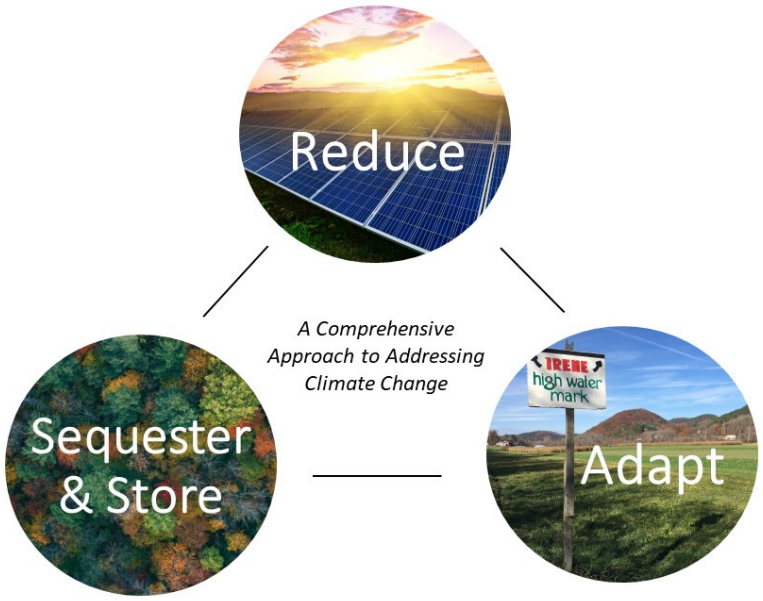
Context – Current Climate Trends in VT



- Per the 2021 Vermont Climate Assessment, **Vermont is getting warmer (+2°F since 1990)** and **wetter (+7.5" since 1990)**.
- We must plan for and adapt to more frequent and severe flooding, increased incidence of drought, prolonged heat exposure, increased occurrence of tick-borne diseases, declined air and water quality, and more.
- These changes are impacting communities and sectors across Vermont, including but not limited to:
  - **Tourism** (ski, biking, lakes, leaf season)
  - **Forests** (maple syrup production, forestry, complexion)
  - **Agriculture & Food Systems** (supply chains, growing seasons)
  - **Human Health** (heat stress, equity and justice, mental health)
  - **Community Development** (economic, social, infrastructure)

Source: https://site.uvm.edu/vtclimateassessment/#

CAP Recommendations – Adaptation & Resilience



- As the General Assembly develops solutions to address comprehensive climate action, **special attention to land use decisions and policies is necessary.**
- **A key, cross-cutting theme is the importance of investing in Compact Settlement policies.** Doing so yields emissions reductions benefits, promotes community cohesion and resilience, creates affordable housing, and protects our natural and working lands from sprawl development, which in turn increases carbon sequestration/storage and climate change adaptation.
- Through policy initiatives, **reduce forest fragmentation, promote flood resilience, and support investments in resilient infrastructure**.
- **Invest in strategic conservation**, with Vermont Conservation Design as the guide for prioritizing efforts.
- Per formula in statute, **fully fund the Vermont Housing & Conservation Board (VHCB)** and **Regional Planning Commissions (RPCs)**.
- **Establish "climate resilience zones"** informed by existing data, bolstered with new research/science, to identify locations that have high resilience potential for both the natural and built environments and use to inform land use development and regulations.
- Develop required **climate-based framework and/or criteria for state grant and regulatory programs**.
- Develop a **Payment for Ecosystem Services (PES) program for natural and working lands**.