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Tuesday, April 29th, 2025

350Vermont
Formal Input, Draft Climate Action Plan

350Vermont is a statewide, grassroots climate justice organization building a people-powered and people-led climate justice movement in Vermont for a just, thriving world. Our network includes 15 volunteer-lead local and working groups throughout the state, over 500 people taking action, and a larger base of nearly 7,000 Vermonters receiving our regular communications. We work at the intersection of the climate crisis and social justice to advance equitable and effective climate solutions.

We'd like to begin these comments by expressing our appreciation for Climate Council members, its staff, and subcommittees and the substantial time that has gone into crafting the draft recommendations.

Our foremost comment is that the CAP take the necessary steps to meet the greenhouse gas reduction targets in the Global Warming Solutions Act in a way that prioritizes a Just Transition and relies on accurate accounting.

As the council is aware, the evidence is clear: the climate crisis is no longer a future possibility. It is here now. Floods, fires, and famine are taking their toll worldwide, and we are experiencing acute climate disruptions here in Vermont.Temperature changes and associated impacts are at the high end of predictions.[1] As we surpass the 1.5°C level the Paris Agreement called for, we must also recognize that multiple tipping points, which expose us to irreversible and rapidly escalating effects, are happening now.[2]

[1] Sophia Boehm and Clea Schumer, "Ten Big Findings from the 2023 IPCC Report on Climate Change," World Resources Institute, March 20, 2023. https://www.wri.org/insights/2023-ipcc-ar6-synthesis-report-climate-change-findings
[2] Courtney Lindwall, "Climate Tipping Points Are Closer Than Once Thought," NRDC, November 15, 2022. https://www.nrdc.org/stories/climate-tipping-points-are-closer-once-thought,

These tipping points are most acutely felt in the global South,[3] low income[4] and/or BIPOC communities,[5] among women,[6] and in the LGBTQ+ community,[7] where the same extractive attitudes and systems driving the climate crisis have created systemic injustice.

Vermont, as part of the United States, benefits from this extraction through relatively low energy prices. It is therefore a matter of responsibility, justice, and empathy to proactively address the climate crisis; to mitigate its unequal effects on our own communities and around the world; and to shift the extractive worldview that all too often pervades climate solutions. Adequately addressing the climate crisis and its underlying causes is also a matter of our own well being here in Vermont. The reality of climate change is becoming increasingly painful in our state, affecting many of us and most acutely harming marginalized communities.[8]

Every action we take now has an impact on how much worse this crisis becomes. Just as we did when we were the first state to legalize same-sex marriage, we also have an opportunity to set bold precedent in climate justice policy. Our children and grandchildren, who will inherit this world from us, need strong Climate Action Plans here in Vermont and worldwide. The Vermont CAP must remain strong and resist attempts to substitute false, weak, or delayed solutions.

We urge the Council to adopt the following recommendations:

1. **Bring the CAP into alignment with the Just Transition principles developed by the Council's Just Transitions Subcommittee**. Particularly, we would like to see impacted communities prioritized in this process and in the recommendations included in the final plan. As stated in the Just Transition principles, "investments, policies, administration, and oversight [should] tackle the needs of impacted people first, providing the greatest benefits of transitions to these communities." We would also like to see more accessible language and clearer policy descriptions in documents, such as the draft recommendations.

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[3] Notre Dame Global Adaptation Initiative: Country Index. https://gain.nd.edu/our-work/country-index/
[4] Martino Gilli et al., "Climate Change Impacts On the Within-Country Income Distributions," *Journal of Environmental Economics and Management,* Sept. 2024. https://www.sciencedirect.com/science/article/pii/S009506962400086X
[5] EPA, *Climate Change and Social Vulnerability in the United States: A Focus on Six Impacts.* EPA, Sept. 2021. https://www.epa.gov/system/files/documents/2021-09/climate-vulnerability_september-2021_508.pdf m
[6]UN Women, "How Gender Inequality and Climate Change are Interconnected," UN Women, April 21, 2025. https://www.unwomen.org/en/articles/explainer/how-gender-inequality-and-climate-change-are-interconnected
[7] League of Conservation Voters, "Why Climate Justice Must Include LGBTQ+ Justice," LCV, June 29, 2023. https://www.lcv.org/blog/why-climate-justice-must-include-lgbtq-justice/
[8] Mary Kueser et al., "Vermont Flood Costs Could Exceed $5.2 Billion," Gund Institute for Environment, Jan. 10, 2022. https://www.uvm.edu/gund/news/vermont-flood-costs-could-exceed-52-billion

2. **Ensure the People's Demands for a Just Recovery from Flooding, as submitted to the legislature by Community Resilience Organizations, Cooperation Vermont, Northeast Kingdom Organizing, and Vermont Workers' Center, are fully reflected in the Rural Resilience and Adaptation recommendations of the Climate Action Plan.**

3. **Establish a more aggressive 10-year weatherization program for Vermont's housing stock, prioritizing low-income and BIPOC communities' needs.** We must also invest in the necessary workforce and small business training and support to ensure this becomes a reality.

4. **Prioritize public transportation development rather than private cars and invest overall in transportation that serves people and the planet.** Vermont should also develop public transportation systems in urban centers and along major transportation corridors that meet the needs of rural and low-income populations; right-size public transit vehicles so larger buses can be centered on the most-traveled routes; and make all public transit free to users. We should increase frequency and hours and invest in "last mile" local solutions like micro transit and safe rural pedestrian infrastructure. It is crucial to prioritize electric vehicles for all state and commercial fleets including expanded paratransit services. We can partner with major employers, like the UVM Medical Center, to optimize routing. Our policies should reflect the reality that transit is integrally connected with the crucial issues of housing, economic development, and access to healthcare[9].

5. **Prioritize braided Western science and Traditional Ecological Knowledge/Indigenous Knowledge (TEK/IK) in the agriculture and ecosystems sector.** Development of education, outreach, research, and technical assistance programming to encourage the adoption of strategies that increase climate mitigation, adaptation, and resilience by farmers, foresters and other land and water caretakers should be developed using braided Western science and Traditional Ecological Knowledge/Indigenous Knowledge (TEK/IK), and designed to represent diverse perspectives while addressing a diversity of audiences and age groups.

6. **Provide access and resources to farmers who want to practice regenerative agriculture, prioritizing BIPOC farmers.** Regenerative agricultural practices help build the "soil sponge" and provide the vegetative cover needed to cool the landscape, increase flood resilience, and reduce risk of wildfires. Vermont should support a living, working cultural landscape–one that cycles carbon and water, fosters biodiversity, and provides food security for all who live here.

   As food production is compromised by climate change worldwide, Vermont will need to grow more food. We can do so in a way that doesn't deplete our soils but instead

[9] Anna Letitia Zivarts, *When Driving Is Not an Option: Steering Away from Car Dependency,* Island Press, 2024.

mitigates the climate crisis by putting carbon back in the ground while restoring land productivity. There are many who would like to farm in Vermont but can't, particularly migrant workers, BIPOC, young people, and climate refugees who may not be able to afford land. We need to make sure this land is accessible to them.

. **7. Incentivize Just Transition low-emissions renewable energy solutions** such as community solar, solar incentives, air and ground source heat pumps, Thermal Energy Networks, geothermal technology, and thermal storage solutions prioritizing low-income and BIPOC communities. We should also incentivize Thermal Energy Networks that include excess heat sharing, wastewater heat recovery, and thermal storage rather than just geothermal borefields in order to provide least-cost neighborhood-scale energy systems that also lower electricity demand and shave electric peaks.

8. Count all greenhouse gas emissions accurately to ensure our actions are effective and proportional to the scale of the crisis. We should also develop a plan to fully incorporate emissions from land use change, biomass burning,[10][11] greenhouse gases from hydroelectric reservoirs,[12] and "upstream" methane emissions associated with leakage of natural gas.[13] We must accurately represent those emissions associated with Renewable Energy Credits, even though the power is not physically delivered. Where we import fossil fueled power such as natural gas through the regional grid, we should still include those emissions in our inventory, as no amount of RECs eliminates those emissions.[14]

9. **Take "Renewable" Natural Gas (RNG) off the table as a potential solution.** RNG is rarely truly renewable.[15] Sources such as landfills and agricultural methane require the construction of methane-generating infrastructure–methane that would not exist without those structures. Those structures should be accounted for on the debit side of the greenhouse gas inventory. Gas utilities' promotion of "RNG" mainly serves to legitimize

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[10] John Sterman et al., "Does Wood Bioenergy Help or Harm the Climate?" *Bulletin of the Atomic Scientists,* volume 78, May 2022. https://www.tandfonline.com/share/ZNXYXKZWENE2SHT56TDE?target=10.1080/00963402.2022.2062933#d1e612

[11] Partnership for Policy Integrity, "Burning Wood Is Not Clean!" https://www.pfpi.net/air-pollution-2/#:%7E:text=Burning%20biomass%20emits%20large%20amounts,hazardous%20air%20pollutants%20(HAPs)

[12] Ilissa B. Ocko et al., "Climate Impacts of Hydropower: Enormous Differences Among Facilities Over Time," Environmental Science and Technology, Nov. 13, 2019. https://pubs.acs.org/doi/pdf/10.1021/acs.est.9b05083?casa_token=_PiBRoua4iEAAAAA:tZLFfHO4YDgd1K1xq7FYUHmhcph0lEQMxZE9xADSE-8hE1NjdyxiV7ahrBHQmSx2eT28FnZm7if-inQ

[13] Emily Grubert, "At Scale, Renewable Natural Gas Systems Could Be Climate Intensive: The Influence of Methane Feedstock and Leakage Rates," *Environmental Research Letters,* Aug. 11, 2020. https://iopscience.iop.org/article/10.1088/1748-9326/ab9335

[14] "RECs that are unbundled from renewable energy do not benefit renewable energy" (p.34). Rob Bonta et al., *Letter to FTC from 16 State Attorney Generals,* Apr. 24, 2023.

[15] Annika Hellweg, "Big Gas's Latest Ploy: 'Renewable Natural Gas,'" Conservation Law Foundation, Sept. 23, 2020. https://www.clf.org/blog/big-gass-latest-ploy-renewable-natural-gas/

additional fossil gas infrastructure development, as truly renewable gas will never be more than a small fraction of what they are distributing.

10. **Abandon the emphasis on the false solution of biomass energy** for electricity or large scale thermal applications. In a letter signed by over five-hundred scientists from around the world, scientists expressed the concern that "for each kilowatt hour of heat or electricity produced, using wood initially is likely to add two to three times as much carbon to the air as using fossil fuels."[16] While we certainly don't support the use of coal or natural gas, according to research from the Partnership for Policy Integrity, "biomass burning power plants emit 150% the CO2 of coal, and 300 – 400% the CO2 of natural gas, per unit energy produced." [17] Trees don't grow fast enough to compensate for these emissions when we are already in the throes of a climate emergency.

    Human health is also threatened by the combustion of wood through the emission of particulate matter and other toxic chemicals. Compared to other fuels, burning wood releases more EPA-recognized Critical Air Pollutants and Hazardous Air Pollutants.[18] [19]

    Greenhouse gas emissions from biomass are not carbon neutral; biomass combustion takes place in a very short period of time and continues to increase global warming for decades while the replacement and replenishment of these fuels also take decades to centuries (if replacement and replenishment occurs at all.)

    At a minimum, two pieces we would like to see the CAP include: an accounting for greenhouse gas emissions that includes and recognizes the discrepancy between the time of combustion and renewal, and a recommendation to the Legislature to fund and undertake, as soon as possible, the study requested by the Climate Council in its biomass addendum regarding the implications of biomass as an energy source with a moratorium on approvals of new biomass utility-scale electric energy facilities enacted in the meantime.

    We hope we can join our neighbors through the Northeast who are phasing out biomass. (New York removed biomass from the definition of "renewable energy" in 2019; Massachusetts removed woody biomass from its Renewable Portfolio Standard in 2022;

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[16] Peter Raven et al., "Letter Regarding Use of Forests for Bioenergy," Woodwell Climate Research Center, Feb. 11, 2021. https://www.woodwellclimate.org/letter-regarding-use-of-forests-for-bioenergy/

[17] Partnership for Policy Integrity, "Biomass Burning: A Major Carbon Polluter." https://www.pfpi.net/carbon-emissions/

[18] American Lung Association, *Literature Review on the Impacts of Residential Combustion Final Report*. American Lung Association, July 2022.https://www.lung.org/getmedia/2786f983-d971-43ad-962b-8370c950cbd6/ICF_Impacts-of-Residential-Combustion_FINAL_071022.pdf

[19] EPA(2019) Integrated Science Assessment for Particulate Matter; May 2022 supplement; 2019 PM ISA, Sections 6.2 and 11.1; supp. p.36

Connecticut began phasing down RECs for biomass plants in 2022; and New Hampshire ended subsidies for six biomass plants in 2019.)

11. Be cautious when considering cap-and-invest programs. While cap-and-invest can potentially pave the way for more robust climate policies and may have some financial benefits, we are concerned about the difficulty of accounting for emissions with this approach in a way that meaningfully reflects atmospheric greenhouse gases.

Cap-and-invest programs in California and elsewhere have not adequately measured or accounted for emissions, but we acknowledge that such programs may be useful as a tool to finance other programs (for example weatherization, flood resilience and public transit). A 2019 analysis of proposed decarbonization options for Vermont, which included joining the Western Climate Initiative (highlighted in the current proposal as a favorable cap/invest option), determined that such a policy would make little difference unless combined with more explicit regulatory measures and incentives to reduce emissions.[20]

Most importantly, exploration of cap-and-invest should include an honest assessment of costs and benefits, including a thorough and inclusive process to discern potential negative impacts on communities in Vermont, as well as any other jurisdictions we may be partnering with. This would necessarily include an emphasis on listening to voices from the front lines and marginalized communities.

Any cap-and-invest program must account for lifecycle emissions in all sectors and without regard to geographic boundaries. All emission reductions must be carefully designed and fully monitored, and there must be a careful eye on the consequences for impacted communities. If Vermont chooses to align with a system that is already in place and fully designed without those values, it is unlikely that such a program will ever meet these standards.

Thank you for taking the time to consider our feedback.

Sincerely,

The 350Vermont Just Transition Campaign Team on Behalf of 350Vermont

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[20] Marc A.C. Hafstead, et al., An Analysis of Decarbonization Methods in Vermont, Washington: Resources for the Future, January 2019. https://www.rff.org/publications/reports/an-analysis-of-decarbonization-methods-in-vermont/

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