Climate Infrastructure Financing Report
Appendix C – Public Comment (Formal Letters) for AI Query

We wholly endorse the creation of a statewide green finance entity to meet Vermont's mitigation, adaptation, and resilience needs by mobilizing sources of private, philanthropic, and public funding at scale and in a coordinated manner. To that end, our letter focuses on two topics: **(1) the need for Vermont's climate financing entity to be housed within an existing state financial institution and (2) the kinds of functionalities and capabilities this entity should have in order to meet the state's climate, equity, and community development missions.**

Deploying an Existing State Financial Institution

Vermont's climate financing entity should be more than just a financial institution. It must be an entity that can balance complex public goals, empowered to coordinate among state, nonprofit, private, and community actors to achieve those goals. To that end, this entity must be a public entity housed within an existing state instrumentality like the Vermont Housing & Conservation Board.

A public financing entity with a public mission, accountable governance structure, and sufficient financial and technical capacities can avoid excluding vulnerable, particularly rural, communities and displaced workers. Direct affiliation with and accountability to state leaders ensures that it can internalize legislative mandates and prioritize equity goals.

A public financing entity can coordinate among Vermont state institutions, federal financing programs (*e.g.*, Solar For All), nonprofits, and philanthropies to meet economic development goals, provide technical assistance, and target financial support toward vulnerable communities. As a central coordinator of both financing and administrative programming, the entity can more easily integrate and balance climate, development, equity, and justice goals by aligning the missions of its partners to Vermont's climate planning and goals. And as a state instrumentality, it can be designated as a SEFI, or state energy financing institution, making it eligible for federal loan guarantees from the LPO.

This central coordinator function allows the public financing entity to build administrative capacity within Vermont's state government to plan and execute the kinds of complex legal, procurement, and financial activities needed to prepare clean energy and nature-based resilience projects, mobilize investment toward them, and provide support to vulnerable communities.

A public financing entity can already take on more risk and undertake longer-term investment plans than its private and nonprofit counterparts could, especially by making use of the existing creditworthiness of the Vermont state government when issuing bonds and providing credit enhancements. As a centrally coordinated institution for raising public finance for green investment, this entity avoids the transaction costs associated with raising funds for state investment needs outside state financial instrumentalities. It may also be eligible for particular federal benefits or programs geared toward state instrumentalities, such as SEFI lending, the elective pay credits, and Solar for All.

A nonprofit housed outside the Vermont state government apparatus will have a harder time executing these

functions because it would lack the convening authorities and public mandates necessary to work with the many instrumentalities that currently undertake lending or investment programs. It would be less accountable to the state, legislature, and communities; less able to coordinate the expertise and financing sources required to meet these goals; and would place the administrative capacity needed to manage a complex green transition process outside the state government. It is also likely that a nonprofit would be less able to utilize certain financial tools or would eventually have to be empowered by state legislation to use those tools anyway. Empowering an existing entity that already has experience with some of these tools will save valuable time.

This public green financing entity should seek not simply to access funds, but to design and deploy innovative financing tools to leverage all available forms of capital to meet the state's climate and just transition goals. Such tools include but should not be limited to: co-financing alongside other investors; issuing concessional loans; building loan underwriting capacity; providing short-term construction bridge financing; deploying revolving funds; offering credit enhancements like loan guarantees, loan loss reserves, first-loss guarantees, and interest rate buydowns; buying out private developers' stranded projects; making equity instruments and swaps (debt-to-equity and debt-to-grant swaps); warehousing assets and securitizing them; monetizing tax credits through the Inflation Reduction Act's elective pay provisions; centrally procuring key project inputs through bulk orders; allocating grants; and developing partnerships with state universities.

Tools like concessional loans and credit enhancements, enable the entity to mobilize and complement private investment. And other tools such as providing short-term construction bridge financing, perhaps through a revolving fund, and executing bulk orders for key input materials empower the entity to do what the private and nonprofit sectors cannot do at reasonable cost. Ensuring that the entity can securitize and warehouse assets, deploy revolving funds, and buy out stranded projects also allows it to become a financial backstop and central counterparty institution for green investment across the state. And loan underwriting capacity is absolutely essential for building the entity's capacity to develop close working relationships with borrowers, particularly to assess their creditworthiness.

And partnerships with state universities can serve a key capacity-building function: close collaboration builds a pipeline of interested students, researchers, professors, and workers whose scientific, business, policy, and technical expertise can be directed toward state climate investment goals.

On top of the above functionalities, such a public green financing entity should support project preparation and pre-development activities, including site identification, contract structuring, tax credit and elective pay advisory work, project labor asgreement and community benefit agreement advisory, and other forms of technical assistance as necessary to meet Vermont's needs. This kind of coordination work is not easily executed by private or nonprofit stakeholders; undertaking it allows the public green financing entity to build key technical assistance and political coordination expertise.

For the past several years, at the direction of the Clean Water Board, the Enhancement Grant program has been funded at the statutory maximum of $5m. Eligible projects include things like wetland restoration, riparian buffer plantings, river corridor easements, and floodplain and stream restoration. Currently the criteria used to rank eligible projects under (d) are focused almost exclusively on restoring channel stability and reducing erosive forces of rivers and streams, reflecting the larger charge to CWIP to reduce sediment and nutrient pollution. There is a real opportunity here to adjust the criteria to give weight to criteria beyond sediment and

nutrient pollution reduction to place greater emphasis on resilience. It would also be my strong preference to look first at expanding funding for this program (as well as the Flood Resilient Communities Fund at VEM) as opposed to creating any sort of new program from whole cloth.

we encourage you to think beyond federal (i.e., taxpayer) dollars and seek infrastructure funding from the giant fossil fuel companies that knowingly polluted our atmosphere and created the climate crisis in the first place.

Why should these companies - which are making billions in profits while deceiving Vermonters - be let off the hook for the damages their products have caused? Taxpayers should not be the only ones paying to rebuild and harden Vermont's infrastructure.

Big Oil has been reporting staggering profits this year. Of just the co-defendants in *Vermont v. Exxon Mobil Corp.,* they have reported more than $100 billion in profits so far this year:

Company	YTD Net Income (Billions)
ExxonMobil	$28.38 thru Q3
Shell	$11.84 thru Q2
Motiva Enterprises (Saudi Aramco)	$62.00 thru Q2
Sunoco	$0.23 thru Q2
Citgo	$1.37 thru Q2
Total YTD Net Income	**$103.77**

The companies that created the mess in the first place should also pay a fair share and your recommendations to the General Assembly regarding legislation for Vermont's climate infrastructure financing should make that clear.

A particular example that highlights the significance of this Board in leveraging inter-Agency coordination to maximize resources to advance climate action is with respect to the Climate Pollution Reduction Grant (CPRG) authorized under the IRA. Through discussion with the IAAB, the CAO was determined to be best positioned to opt-in to the Planning Grant which was required to access the $4.6 billion competitive implementation grant fund. In July of 23, ANR was awarded a $3M Planning Grant as part of Environmental Protection Agency's CPRG Program. The first deliverable of the Planning Grant is a "Priority Climate Action Plan" or "PCAP". The PCAP is meant to include sector-specific climate mitigation measures that are ripe for implementation and that can have meaningful emissions reduction and sequestration impacts. The CAO has been taking a "whole of government" approach to determining what measures are appropriate for inclusion in the PCAP by working closely with the IAAB to review and prioritize actions included in the Plan. This exercise has yielded a suite of measures that are based on the Plan's actions that have not been implemented or have been advanced or implemented but need further funding to achieve additional emission reductions or sequestration. The CAO will

continue to work with our interagency partners to compile and submit the PCAP by the end of this calendar year.

We recommend further consideration of how to use our existing funding infrastructure to finance nature-based solutions that address our climate goals. VHCB is interested in enhancing our existing investments and developing new programs to support climate resilience through nature-based solutions. In particular, we can play a role in leveraging emerging federal and philanthropic sources and allocating funds to support nature- based solutions. We already fund projects with an established network of conservation and land trust partners. We are interested in drawing down federal funds that support climate mitigation and resilience and in bringing in new partners to implement and steward this work.

As we engage in the Vermont Conservation Strategy Initiative (Act 59, 2023), we will explore the types of investments that are needed to support biodiversity conservation and community resilience across the state. Notably, this legislation requires us to protect 30% of the state's lands and waters by 2030, and 50% by 2050. This will require both increasing the pace and scale of our existing conservation work, and exploring new tools, in new places, for accomplishing new types of conservation work (i.e. aquatic conservation tools). We are especially interested in working with partners to explore new areas of resilience work such as restoring floodplains, conserving wetlands, and river meanders. As we engage in our conservation strategy work, which is primarily a planning process, we are simultaneously beginning to explore new federal and other funding sources so that we are prepared to implement this vision.

Our Farm and Forest Viability Program sees many ways that enhanced investments in working lands businesses can support increased climate resilience outcomes. For instance, we see enabling land access for farmers as a critical part of climate infrastructure. Increasing affordable access to agricultural land makes it possible for young farmers to access land to grow food, invest in soil health, and implement conservation practices on their land. However, a lack of available, affordable farmland and few farmland financing tools limit this pathway. Most farm and forest businesses are actively seeking ways to increase their land stewardship, whether to meet RAPs or AMPs, or to exceed them. However, administrative burdens, long timelines, and low payments for incentive programs can be barriers to working lands businesses adopting new technologies or practices. Thus, we are supportive of new programs to support farmers in improving land management practices. Working lands businesses need financial support to access the next-generation equipment and infrastructure that will contribute to Vermont's energy reduction goals - such as increased use of solar, electrification, and harvesting equipment that has a low impact to soil health. VHCB includes energy efficiency requirements in our design standards because of the critical economic and health benefits that accrue to the low- and moderate-income residents of these homes, and to help the state meet its goals for carbon reduction. According to VHCB's current building design standards, funded housing units must be developed to

the Efficiency Vermont Multifamily high performance energy tier. These advanced energy efficiency standards increase the cost of affordable housing production substantially. VHCB commissioned a cost study in 2021 by Naylor and Breen that indicated that energy efficiency requirements increase the cost per unit by 16%. Vermont's energy incentives do not currently sustain this scale of investment.

VHCB views it as critical that Vermont continue to enhance its energy efficiency incentives as a key tool to help low- and moderate-income Vermonters share in the benefit of the state's energy efficiency policies. We see much existing strength in Vermont's energy sector and have confidence that existing service providers and funders of energy efficiency, weatherization, and renewable energy generation are developing systems to leverage energy infrastructure dollars.

However, we also believe it is critical that as we transition our energy systems to use more renewable sources and make investments in existing housing stock, equity must be a central guiding principle. Increased investment and coordination will be necessary to ensure that the benefits of energy investments are available to all. Affordable housing developers and partners can play a role in targeting energy investments to low income household, and VHCB can play a role connecting housing development partners to energy incentives.

New federal funding and programs present a great opportunity to enhance Vermont 's climate related programs that are already successful, significantly reduce greenhouse gas emissions, and that meet the needs of underserved and rural communities. Here are our suggestions:

- The Weatherization Assistance Program should be expanded. This program reaches underserved, low-income residents in all areas of Vermont. Specifically, consideration should be given to the following programmatic changes:
    - Increase the cap on income eligibility.
    - More funding should be provided specifically for heat pump installation and work related to decarbonizing home heating. This will help the State to reach its goal of significantly reducing greenhouse gas emissions. Heat pump adoption is a high priority action that can significantly reduce greenhouse gas emissions in the thermal sector.
    - The program must provide competitive wages to attract and retain the necessary workforce. Employee retention has historically been a challenge due to the working conditions of weatherizing homes, low compensation, and the high demand for weatherization work in Vermont. This needs to be addressed

for low-income Vermonters to continue to benefit from the program.

- The Electric Vehicle Supply Equipment (EVSE) Grant Program should be expanded to prioritize reaching underserved, BIPOC, low-income and older residents in all areas of the state. The expansion of the program for increasing EVSE at existing multi-unit properties, workplace charging, and public attractions will serve all residents, especially marginalized populations, who make the transition to electric vehicles. Transitioning to electric vehicles is a high priority action that can significantly reduce greenhouse gas emissions from the transportation sector. Expansion of the program in Chittenden County has the potential to reach the State's largest BIPOC population and Vermont's largest share of drivers statewide.

- The Municipal Energy Resilience Program (MERP) should be expanded to include schools and non-profit commercial buildings that serve underserved and rural communities. This program is currently being administered by the Vermont Department of Buildings and General Services in partnership with the State's Regional Planning Commissions.

- The State Energy Revolving Loan Fund, administered by Building and General Services (BGS), could be expanded to include municipal projects. Payments back to the fund are made with energy savings on the project until the loan is repaid, resulting in no cost to the municipality. See how Harvard's energy revolving loan fund operates: https://sustainable.harvard.edu/green-revolving-fund/

- Some electric distribution utilities, in cooperation with Efficiency Vermont, have a considerable number of rebate and incentive programs that could have more substantial impacts if additional funding was provided. Specifically, we recommend larger incentives to help cover the upfront costs of geothermal heat pump installations in new affordable housing projects. Geothermal heat pumps are often a better option for affordable multi-unit housing than air source heat pumps because they require less maintenance and cost the residents less to heat and cool than natural gas or air source heat pumps. However, geothermal heat pumps have a much higher up front capital cost for the owner/developer.

- The Vermont Low Income Trust of Electricity (VLITE) has historically supported a wide range of projects designed to support the energy needs of low- and moderate-income Vermonters. VLITE should specifically be consulted to see if there are opportunities for collaboration on existing programs. VLITE should also be consulted regarding how low-income

Vermonters can be assisted with increased future electricity rates that will likely be necessary to support capital improvements to Vermont's electric transmission and distribution networks. CCRPC is particularly concerned about future electricity costs for low-income residents living in electric-heated multi-family buildings that do not have sufficient space to install solar panels for net- metering

The Department of Public Service's Public Participation Plan has effective actionable strategies for connecting to community groups about the energy transformation needed to reduce our emissions. The State of Vermont's Climate Action Public Engagement Plan is also a resource for understanding which community groups to reach out to marginalized communities.

Specifically working directly with marginalized communities to mutually identify needs is important. However, this typically ends up looking like those with the technical expertise "going into" community groups when something is needed, asking for feedback, and leaving. This practice is extractive. The challenge is that community groups in marginalized communities often lack capacity and are already struggling to carry out their own mission. To ask more of them adds to their already too-heavy load. Thus, we need to make sure that we can create reciprocal and ongoing relationships with key community organizations in marginalized communities in a way that supports and furthers their work before asking them to support additional work.

Lastly, community needs in marginalized communities have been, and continue to be shared, through a multitude of ongoing engagement efforts at any given moment. Another strategy for imbuing technical expertise with community knowledge and needs is to better collaborate with others on the back end to share community feedback that has already been collected before asking the same questions to the same groups of people. Only once we have determined what needs have already been recorded should governmental organizations determine where gaps remain.

Asking small communities and/or schools to work on complex grant applications and reporting as a way to access funds is unfair and burdensome due to limited administrative capacity. Applying for and administering grant funds takes resources and expertise that underserved and rural communities do not have.

Expansion of the Municipal Technical Assistance Program (MTAP), a program created by the Agency of Administration last year could create additional capacity for Regional Planning Commissions (RPCs) to assist small, underserved, rural communities. RPCs may also be able to help municipalities within the same region cooperate or collaborate on projects to avoid competition amongst each other. Creating programs that communities can opt into with minimal effort (e.g. Municipal Energy Resilience Program a.k.a. MERP) is another way to

increase the accessibility of funds. Future federal grant applications, like the EPA's Climate Pollution Reduction Act Implementation Grant, should ideally be coordinated through the State of Vermont. Municipal or RPC applications should be discouraged.

There is a higher probability of coordination and success if future State applications to federal grant programs treat Chittenden County equally to other geographic parts of the State. CCRPC is particularly bringing attention to this issue because recent State programs, like MERP and MTAP, have treated Chittenden County differently than more rural parts of the State. While this approach may work for State programs, it may put a coordinated statewide grant application in a disadvantageous position given Federal Justice 40 requirements. Chittenden County includes three of Vermont's disadvantaged areas, as defined by the Federal Justice 40 criteria. Additionally, Chittenden County is Vermont's most racially diverse region and has more households living in poverty than any other county in the State. The County also has several very rural municipalities with fewer than 2,000 residents. Statewide grant applications need to take this information into consideration when coordinating future grant efforts.

- The Agency of Natural Resources' Climate Action Office has secured planning funds through the EPA Climate Pollution Reduction Grant. The Agency intends to apply for implementation funds through the same program in April 2024.
- Energy Futures Group, a non-profit in Hinesburg, Vermont, recently received a grant from the US Department of Energy (DOE) to study state-wide building energy code compliance. Our understanding is that these funds have been used to support the work of the Building Energy Code Study Committee, which was created as a part of the HOME Act.
- Northeast Energy Efficiency Partnerships (NEEP) and Vermont Clean Cities Coalition (VCCC) were recently granted an award from the US DOE Vehicle Technologies Office (VTO). The $1.2 million grant will support the development of Community Driven Transportation Plans in New England (including Chittenden County).
- Burlington Electric Department (BED) and VELCO were both granted awards via the US DOE, Grid Deployment Office Grid Resilience and Innovation Partnerships Program (GRIP). The BED grant is to support better utilize Smart Grid technology ($1.2M) and the VELCO grant is to install grid enhancing technology in Northwest VT.
- Burlington International Airport Voluntary Residential Sound Insulation Program, funded partially through a Federal Aviation Administration (FAA) grant, will mitigate noise from the airport and also offer the co-benefit of weatherization for 2,500 homes in Winooski, South Burlington, Williston, Colchester, and Burlington.
- The Energy Efficiency and Conservation Block Grant (EECBG) Program allocated money to Vermont Counties (e.g. county courts) and the ten highest populated municipalities in the State. Each were awarded around $75,000 in

funding. The program can be used to support energy efficiency and fossil fuel emission reduction-related work. Chittenden County Regional Planning Commission has provided funding and staff resources for energy planning for our member municipalities.

Focusing on refining and enhancing existing programs with a renewed commitment to decarbonizing transportation and building thermal energy use (primarily via EVs and heat pumps) in conjunction with energy efficiency and vehicle miles traveled (VMT) reduction. Greenhouse gas reduction should be the primary goal.

Coordination among state agencies is necessary to efficiently and effectively combat climate change. RPCs are a key player in assisting and supporting the planning and implementing of state programs at the municipal level. RPCs have strong existing relationships and familiarity with municipalities. Additionally, RPCs have the ability to assist the state with making changes at a regional scale.

Vermont's historical focus in the energy sector has been on energy efficiency because consensus regarding human induced climate change caused by the burning of fossil fuels had not yet been reached. Our investments now need to reflect a pivot from efficiency to decarbonization and reducing greenhouse gas emissions according to the Global Warming Solutions Act requirements.

This change will face some local opposition from businesses and workers that have historically made their living from fossil fuel consumption. Educating businesses on how to profit from decarbonized solutions, educating workers and Vermont residents regarding new technologies must be part of the investment and be a large part of the implementation of the Affordable Heat Act.

Climate change has been shown to disproportionately affect marginalized communities. These communities often face higher levels of vulnerability due to factors such as limited access to resources, inadequate infrastructure, and socioeconomic disparities. For example, VT Digger reports that "Market pressures … are constantly pushing lower income people further and further toward options that reduce their quality of life — older, more degraded housing stock, or housing stock that churns through natural disasters more quickly." (Lola Duffort, "The flood waters disproportionately hit Vermont's affordable housing stock — at the worst time." *VTDigger* July 31, 2023). This problem could be exacerbated as Vermont develops a national reputation as a climate refuge and people with the financial means relocate to Vermont to avoid the impacts on climate change in other parts of the country.

The initial up-front cost of transitioning to electrification in the renewable energy generation, heating, and transportation sectors will be burdensome to marginalized communities. Therefore, investments should tackle the needs of marginalized communities first by including targeted strategies that consider their specific histories, sociocultural, and economic realities. Careful consideration of the cost of decarbonizing and upgrading grid infrastructure is needed to ensure that policies are not burdening Vermont's electricity rate payers. Currently, rate payers are faced with substantial costs for paying for weatherizing buildings, converting to electric heating sources, purchasing cleaner vehicles, and for paying for grid infrastructure upgrades that

are passed on to the customer through utility bills. Federal and state policy leadership is needed to reduce the cost to low-income households and marginalized communities. The responsibility to decarbonize and fight climate change should not completely be passed off to individual Vermonters or municipalities.

Lastly, the importance of land use planning that can effectively achieve our state planning goals to “maintain the historic settlement pattern of compact villages and urban centers separated by rural countryside” cannot be underestimated. Our state greenhouse gas emission reduction goals, our working lands goals, our housing goals, and our transportation goals (particularly related to public transit) are all directly tied to the effectiveness of our land use planning and regulation. This policy and planning work cannot be forgotten during our state’s energy transformation.

Financing municipal projects with local tax revenues is unpopular and municipal officials are hesitant to raise municipal taxes for projects deemed not urgent. Free programs and grants are very popular as municipalities are constantly scanning for ways to show taxpayers that they are fiscally responsible by keeping tax rates low. However, staff resources to apply for grants at the municipal level are very limited so funding mechanisms should remove unnecessary applications or reporting processes for accessing funding. Consider learning more about trust-based philanthropy to remove funding barriers to make fighting climate change more just and equitable.

Financing is always considered a last resort at the municipal level; successful financing options must be very attractive and will be more popular when they provide a tangible return on investment, such as lower energy costs.

Vermont needs to develop an updated greenhouse gas emissions inventory and monitoring program. This will be an ongoing requirement for future federal funding and state-wide policy decisions. This resource should also be shared with RPCS and municipalities to achieve alignment.

The ANR Climate Action Office (CAO) is in the best position to coordinate state-wide strategic planning and funding allocation for greenhouse gas reduction and climate adaptation projects. Build upon the EPA’s Climate Pollution Reduction Planning Grant (CPRG) model where the Vermont CAO tapped RPCs to help identify municipal projects to be included in the State’s Priority Climate Action Plan. This CPRG- funded Priority Climate Action Plan is a prerequisite to apply for a portion of the $4.3 billion available to states, tribes, and local governments for implementing the Priority Climate Action Plan by funding projects to substantially reduce greenhouse gas emissions by 2030.

The Vermont Public Service Department is an entity and resource for coordinating clean energy projects with RPCs and municipalities. Additionally, Vermont Department of Buildings and General Services in partnership with RPCs has developed the MERP program in a way that is relatively easy for municipalities to participate in decarbonizing public buildings.

RPCs provide coordination between state agencies and municipalities across a wide range of topics including energy planning. Many RPCs have a dedicated energy planner. Some larger

municipalities also have staff dedicated to climate, energy, or sustainability issues. These folks should also be consulted with as a part of any statewide project.

Current state agency programs are generally sufficient at providing adequate staffing of state agencies. The State CAO should coordinate work to achieve state-wide targets and goals. The CAO will likely need additional capacity to scale up into this coordinating role. The State should also consider funding existing organizations that can also assist with statewide coordination (such as RPCs), if deemed appropriate.

It is time for the Vermont legislature to imbue one of our existing governmental or quasi- governmental entities with the authority, the mandate, the staff, and the funding to (a) create a statewide climate finance strategy, (b) raise capital, (c) deploy, recycle, and leverage capital, (d) coordinate and support the work of relevant partner agencies, (e) provide technical assistance and train the market, and (f) promote and market its own and others' programs to achieve our climate goals.

Transitioning from OPEX-heavy fossil fuel infrastructure to CAPEX-heavy clean energy systems and nature-based solutions requires an *upfront* supply of capital, which tax funding alone will not sufficiently address. Without access to upfront capital and innovative leveraged financing solutions, Vermont will simply not meet its climate ambitions.

Vermont's Climate Action Plan recognizes that for the plan to be successful "the support and engagement of Vermonters is critical — to mobilize a broad coalition of state, local, and l governments, nonprofits, academic institutions, and private interests taking collaborative, decisive action. Significant and sustained investments, well-financed programs, properly capitalized lending entities and individual financial commitments will all be needed to implement the Climate Action Plan and realize important outcomes (…)." The Climate Council goes on to state, "No single funding stream will achieve our climate goals. **Climate action requires leveraging a variety of sources — existing and new, private and public, local, state, and federal — and innovative financing mechanisms to support sector-level transformations and the ability of Vermont lenders to make crucial long-term investments in climate-focused projects and initiatives**."

Yet, no one entity has been given a clear mandate by the Governor's office or the Legislature to do all it can to develop these "innovative financing mechanisms" or only minimally so. While we have many programs, driven by more existing entities than in most states, we do not have a coordinated statewide strategy for climate finance. Each one of our quasi-public organizations dutifully pursues the mandate it was given, and it is unlikely, without specific authority, expert staff, or adequate funding, that one of them will suddenly find itself moving beyond what it currently does. More of the same, perhaps slightly bigger, will not cut it.

Promoting coordination across organizations is indeed necessary, as many have said, but climate finance is technical, broad-ranging, and cross-sectoral so our government should not expect a loosely connected web of existing organizations without sufficient funding, staffing, or authority to successfully tackle what is the most consequential challenge of our generation and that of our children.

This is not to say that we lack institutional knowledge or goodwill. I do not in any way impugn the usefulness of our existing programs or institutions. On the contrary, I am immensely grateful for the many public servants dedicated to meeting clean energy and conservation goals in Vermont.

Without them, we would not see any progress toward meeting our climate and conservation goals. I do, however, very much question the scale that we purport to achieve without an entity with the designated authority to steer the state in a clear direction when it comes to financial strategy, and to guide partners, existing and new, along with it toward our decarbonized future. It does not take much vision or work experience to recognize that accessing the once-in-a-generation opportunities afforded by the federal Infrastructure Investment and Jobs Act (**IIJA**) and the Inflation Reduction Act (**IRA**) will be impossible without dedicated staff and funding.

If I find this letter hard to write, it is because it argues the very fundamental notion that good ideas do not materialize into reality unless a champion makes them so and unless we give ourselves the resources to meet our goals. The "action" part of the Climate Action Plan requires that we do not stop at saying "we need innovation and funding" but that we move on to the "do" part with renewed vision and ambition.

Therefore, I propose that the legislature should take the following concrete steps.

> **First, and most urgently, the legislature should require that the Treasurer's Office be given the explicit authority, mandate, and funding to aggressively pursue funding opportunities for climate mitigation, adaptation, and resilience, across both clean energy and nature-based solutions spaces. The Treasurer's Office does not need to be the organization that ultimately will be responsible for all of the activities listed in the second paragraph above in (a) through (f).**

However, the Treasurer's Office should coordinate with other entities on the short-term deployment of such funds and help them apply to funding. This would include supporting financial intermediaries with existing networks as appropriate, as well as existing agencies working on climate solutions and communities.

The Treasurer Office is the right organization to pursue funding this way as its expressed function is to "serve as the State's (…) chief investment officer."[4] In the wake of transformational federal legislation, many states have launched funds dedicated to help the state apparatus and communities seek federal funding, to provide cost-share funds, to enable leverage, or to provide technical assistance to communities. For example, in Colorado, the Infrastructure Investment And Jobs Act Cash Fund provides $80,250,000 in funding to the Governor's Office as a nonfederal match for the state or a local government for certain categories of infrastructure projects allowed under IIJA.

In Connecticut, Public Act 22-25, the Commissioner of the Connecticut Department of Energy and Environmental Protection (**DEEP**) was required to "establish and administer a grant program for the purpose of providing matching funds necessary for municipalities, school districts and school bus operators to submit federal grant applications in order to maximize federal funding for the

purchase or lease of zero-emission school buses and electric vehicle charging or fueling infrastructure." The Act requires that the DEEP Commissioner give preference to applications relevant to environmental justice communities.

In Kansas, the $200 million Build Kansas Fund provides matching dollars to Kansas communities for infrastructure projects approved under IIJA. Projects that can receive funding include "water, transportation, energy, cybersecurity and broadband through Fiscal Year 2027." At least $10 million will be reserved for investment in eight "Economic Development Districts." The Build Kansas Fund is administered by the Kansas Infrastructure Hub. The Kansas Infrastructure Hub includes "representatives from the Kansas Departments of Administration, Agriculture, Commerce, Health and Environment and Transportation, along with the Kansas Corporation Commission and the Kansas Water Office, will manage the Build Kansas Fund, offering technical assistance, tracking funds and promoting grant opportunities."

In Kentucky, the legislature appropriated $17.3 million from the general fund to match $69.4 million in IIJA funds for fiscal years 2022-2023 for IIJA electric vehicle charging infrastructure support programs.

In Minnesota, the State Competitiveness Fund was created as a special revenue fund in the Minnesota State Treasury and $115 million appropriated and remain available until June 30, 2034, under the management of the Minnesota State Treasury to facilitate accessing federal funding under IIJA and the IRA. The State Competitiveness Fund is meant to "(1) pay all or any portion of the state match required as a condition of receiving federal funds, or to otherwise reduce the cost for projects that are awarded federal funds; (2) award grants under subdivision 4 to obtain grant development assistance for eligible entities; and (3) pay the reasonable costs incurred by the department to assist eligible entities to successfully compete for available federal funds." These funds can be applied to a large array of uses, including accessing formula funding, funds directed to political subdivision of the state or Tribal governments, nonprofits, businesses, utilities, and other grant opportunities "directed to eligible entities that do not require a match but for which the commissioner determines that a grant made under this section is likely to enhance the likelihood of an applicant receiving federal funds, or to increase the potential amount of federal funds received." The broad-ranging nature of Minnesota's matching funds strategy demonstrates how serious the state is about accessing federal funding and utilizing all available dollars to boost its competitiveness and investments.

In North Carolina, Governor Cooper's administration established a $225 million Federal Match Reserve investment for state agencies to meet federal matching requirements from IIJA, the CHIPS and Science Act, and the IRA. The Federal Match Reserve "allows the state to participate in the paradigm shift created by these catalyzing federal bills and access an extraordinary amount of federal funds for infrastructure, research, climate initiatives, manufacturing, and STEM education [and] [p]ositions our state to compete for hundreds of billions of dollars, bringing our share of taxpayer funds back to North Carolina."

In Oregon, the legislature passed the climate resilience package (HB 3409 and HB 3630), which included over $90 million in new climate spending "to access as much as $1 billion from IRA

programs. The new law provides funds to help marginalized communities, local governments and community organizations apply for federal grants."

While Vermont may not have the same level of resources at its disposal, these examples highlight that **these states, both red and blue, understand that accessing federal funds takes resources, both human and financial. The political and geographic diversity should be enough to give the Vermont Legislature pause about its strategy so far to support the implementation of the Climate Action Plan and of the Vermont Global Warming Solutions Act (GWSA).** Enabling access to funding is but a step for the legislature, and should not replace other necessary steps to develop and implement a coordinated strategic approach to climate finance, executed by a centralized team. A lot of the states above have both "matching funds" and green banks as is the case for Connecticut, Minnesota, Colorado, or North Carolina, among others.

Second, the legislature should pick one to two existing organizations to lead the development of Vermont's climate finance strategy, fund it/them adequately, requires that it/they hire staff, including shared staff for key functions, and place them under the authority of a shared governing body within the Treasurer's Office.

The explicit modified mission/mandates of such organization(s) should be to stimulate market transformation in Vermont for the benefit of Vermonters and Vermont-based enterprises, to develop a climate finance strategy, to pursue funding sources and financing programs that will enable the climate policy goals of state agencies, as required by the legislature, to offer technical assistance, to lead the implementation of such state strategy, and to support the marketing of programs and products. Such organization(s) should also actively support and promote the activities of the quasi-public organizations and nonprofits pursuing climate goals in the state.

Ideally, one organization would lead financial activities for both clean energy and nature-based solutions. However, given the existing slate of organizations in Vermont, **I recommend that the legislature authorize and require that (a) the Clean Energy Development Fund (CEDF) and (b) the Vermont Housing & Conservation Board (VHCB) become Vermont's climate finance authority.**

CEDF already has most of the attributes necessary for an expanded mission but will have to be given broad autonomy to pursue climate mitigation goals and the flexibility to hire new staff quickly and raise/deploy capital. Similarly, VHCB can rapidly scale operations to finance nature-based solutions in the state.

These organizations should work together, with guidance from the existing Local Investment Advisory Committee, and other relevant agency staff. Besides co-developing a strategy over time, working closely with the new staff at the Treasurer's Office on capital raise, these organizations under a new climate finance authority branding would be the main conduit for program development, and would have the option to deploy capital directly or through existing organizations, as relevant and appropriate.

They would provide clear communication to financial partners and private sector investors about the programs and policies of Vermont, act as a technical assistance provider, and proactively seek to grow the pipeline of projects in both their core areas. They would not seek to replace the existing organizations, but to lead the market, send clear signals, and develop opportunities for our climate economy.

Both organizations should be given broad latitude to utilize all of the tools in the financial toolbox and to invest using a range of debt and equity tools, including securitization and tax credit optimization, as well as to deploy grants, either directly or as a passthrough entity for other organizations such as Efficiency Vermont or VSECU. Both organizations should explicitly support low-income families and underserved communities in our rural and urban environments, not as an afterthought, but as a structural part of their vision and mission.

Key staff for financial, legal, marketing, and data/reporting functions should be shared to promote cross-learning, create efficiencies, and to facilitate strict compliance and reporting requirements attached with federal funding.

The legislature should seek to encourage flexibility, creativity, and engagement with the market and communities, including by allowing the Treasurer's Office, CEDF, and VHCB to create the special purpose vehicles or nonprofits that may be necessary to pursue philanthropic sources of funding or to create financial structures that are adapted to our state.

Reaching the goals of the GWSA and implementing the Climate Action Plan will require your leadership not to simply coordinate the good work already being done, but to proactively pursue funding sources for climate financing solutions, and to empower CEDF and VHCB to build and implement a statewide climate finance strategy that leverages public investment. We have many of the ships we need to get us where we committed to going. It is high time that we hired ourselves a captain.

Together, operating as the Vermont Public Finance Climate Collaborative (PFCC), we would like to describe our current work to finance climate infrastructure and access emerging funding opportunities, as well as sharing our vision for how statewide coordination could further leverage resources to support Vermonters and achieve the state's climate goals.

We originally organized the collaborative because we saw a need to create a collective home for project development and information sharing for climate financing initiatives in Vermont as new resources become available through the Inflation Reduction Act (IRA). Our organizations are prepared to leverage IRA funding to ensure that low-income households and disadvantaged communities are equitably reached by these resources. Proof of this concept is described in more detail below.

We feel that the outreach process being led by the Treasurer's Office can be a valuable opportunity to inform the public about what resources are available through the IRA and Infrastructure Investment and Jobs Act (IIJA), and when and how that funding will become available. Both pieces of legislation are an extensive patchwork of tax credits, grants and

financing programs. Currently, the Department of Energy (DOE), the U.S. Environmental Protection Agency (EPA) and other federal agencies are in the rule- making process or have released Notices of Funding Opportunities for many related programs.

Relatively little of the funding available from IRA is yet available to be deployed in Vermont. Some pieces will require state sponsorship, while others will benefit from the experiences of the PFCC, and still others will directly benefit project owners. This diverse range of applicants and uses of funds speaks to the informational barriers among participating entities that would benefit from information sharing to ensure the greatest impact of the funding and financing opportunities.The $27 billion Greenhouse Gas Reduction Fund (GGRF) is one of the IRA opportunities available to financing entities. The Vermont Department of Public Service has already submitted an application to EPA for the $7 billion Solar for All competition of the GRRF. The remaining $20 billion in GRRF funds will be distributed through a number of national entities, such as the Coalition for Green Capital and Climate United, which will be announced in Spring 2024. PFCC members joined coalitions, submitted project pipelines, and intend to seek financing from these national entities for funding to support greenhouse gas reduction projects in Vermont across the sectors we serve.

Our statewide mission-driven roles, with 50 years of experience and strong balance sheets, make us uniquely positioned to work with these national intermediaries to maximize the funding available to Vermont. Underscoring this capability is the utility recognized by our national partners in our collective capacity as they conceive of us as “green banks” for our respective constituencies and place us side by side well known entities like the Connecticut Green Bank. Our ability to access these resources will be largely dependent on the terms and uses these national organizations set for awards. As GGRF awards increasingly appear targeted to specific sectors, PFCC members will likely apply individually to the national entities rather than as a single application.

However, we intend to coordinate amongst ourselves to ensure that we are fully aware of potential funding opportunities.

> Although the PFCC members are actively pursuing the IRA funding that we are currently eligible to receive, *we feel that the Treasurer’s Office could play an important role as an information clearinghouse*, ensuring that all new and existing federal climate funding opportunities are identified and brought to the attention of the entities or the state agencies that are the intended recipients.

Further, we believe the *Treasurer should also help to evaluate the supply and demand for climate related funding and financing sources* on an on-going basis in consideration of the risks faced by the state from a changing climate as well as the mandates outlined in Vermont’s Climate Action Plan and Comprehensive Energy Plan. This evaluation would incorporate the missions, competency, and existing programs of PFCC members in their sectors. This should also include advocating for climate infrastructure financing to be broadly inclusive of adaptation programs. From insurance to grants, these programs may take many forms but should not be ignored from climate discussions around climate finance.

We know that some states have, or will, pursue setting up a new Green Bank as a way of accessing federal funds and we do not recommend that path for Vermont. Because of the PFCC's willingness – and eagerness – to work together and ensure there are no market gaps or lost funding opportunities for our small state, we feel confident in our ability to apply for, access, and deploy the available funding without adding a new entity. Any new organization would require tens of millions of dollars to capitalize a balance sheet similar to the PFCC, and would not have the 50-year history of lending that investors and rating agencies would need to see. The organizational overhead, untested governance, and additional coordination that a duplicate agency would add to the state would be wasteful.

Instead, the PFCC sees a role for itself as a shared "front door" for the state's climate financing. Our organizations will continue our work in our respective fields, while coordinating with stakeholders and amongst ourselves. Using existing organizations within a new framework will allow us to utilize and expand our programs and leverage our existing funding streams, private partnerships, and credit capacity. This structure will allow us to avoid duplicative efforts and ensure that all parts of Vermont and all the different sectors we serve have equitable access to funding opportunities.

This effort will require continued outreach to Vermont's energy stakeholders, including the State, nonprofits, and the private sector. We will need to form expanded partnership*s* to reach consumers, connect with the state's contractor workforce, leverage new technology, and measure the impact of our joint work.

The solar array represents a method of cost control for us. The changes we are contemplating are expensive and will likely end in higher annual operating costs for us. We need to be able to mitigate the costs in some fashion and the solar project seems to be practical.

The **feeling one gets** is that the utility has no real incentive in us moving forward with renewable energy. The **feeling** is backed up by the lack of control of the costs; the utility has to find the transformer, the utility has no real interest in controlling that cost as we will have to pay whatever they say it is. The installation is the same thing; why rush and the customer will pay whatever the cost is.

In the long term, what incentive does a utility have to help customers use less utility provided power?

Barriers

- Inability to plan with unknown costs, and delays.

- Utilities not being ready and open to solar and EV impact

- lack of real, supported programs within utilities to be ready and accommodating for EV's and solar arrays

- lack of transformers, utilities not up to date (many under-rated transformers in use), not stocking transformers, etc.)

- Create incentives for implementation of renewable energy that work at all levels of the programs needed to move forward

- Create programs that encourage sharing of resources (staff and inventory) amongst the various utilities

- Create practices / rules that would have the utility responsible for anything that is not part of the house. Responsible to the point of performance penalties (lack of performance). (Exception would be systems that are well above residential systems)

- Rising costs are an incentive to change to more economical systems, but it is hard to plan without knowing the costs and timing of enabling new systems.

- Come up with processes that insure consumers will not suffer for delays that they have no control over. This would help enable consumers to plan for projects.

- Utilities share **detailed specifications** on exactly what is needed. (Other resources might be found to provide "scarce" items and it removes the barrier of unknown costs and availability).

- Create some sort of teams to help with the unknown costs of projects (like the consumer burden of bringing transformers up to date – purchase and labor costs)

- Set deadlines on the delays that projects run into and define the remedy so that consumers are comfortable making commitments. As an example (maybe a little far fetched); When consumers make a significant commitment to a significant solar project, their utility bills ceases until the utility completes their portion of the project. This would need to include transformers and swaps, etc.

We submit the following comments as you develop your recommendations:

- **Scale Up Existing Programs** – We have several successful programs and partnerships developed in Vermont aimed to finance investments to increase energy efficiency and reduce carbon emissions for municipalities, businesses, families, and individuals. Some of these programs have built-in income sensitivity to enable low- and middle-income borrowers to access affordable lending options for project financing. Standing up new programs takes time and resources, and this should be considered for identified gaps in Vermont's funding/financing landscape.

- **Fund Outreach, Technical Assistance, and Project Management** – Our experience shows that technical assistance and coaching is essential for uptake in energy efficiency investments in low-income communities. The day-to-day demands on low-income families make it incredibly difficult to plan for the benefits of energy efficiency, navigate

the complexities of lending and rebate programs, and manage contractors. Strategic outreach to enroll individuals and significant assistance and coaching to support through the process will be essential to meeting the GHGRF intent to deliver lower energy costs and economic revitalization to communities that have historically been left behind.

- **Pre-bate, Not Rebate** – In the financing instruments used to deploy funds, seek the ability to lower the loan total to the borrower by pre-bating incentives when possible. Pre-bate funds can be delivered to project builders/contractors directly when appropriate to avoid the borrower needing to have a loan that includes the expected incentive. When the traditional 'downstream' rebate is moved to the front of the process, the project cost is reduced from the start, so more Vermonters can participate.

- **Enable Coordination, Performance Reporting, and Monitoring** – Currently there is not an entity established to receive and coordinate climate funds, collect performance reporting, or monitor outcomes. Establishing a centralized entity, or assigning the role to an existing entity, would support clarity among deployment partners, utilities, agencies, and grant seekers and efficacy for the funds drawn down.

Currently Vermont only supports community solar arrays – the easiest way for most low-income households to access renewable energy – with a few very modest, one-time programs such as the Affordable Community Renewable Energy (ACRE) program. Other states such as New York have much more advanced community solar programs that provide upfront incentives to build projects to the type that provide the easiest access to renewable benefits for low-income New Yorkers. Accessing federal money to create similar incentives in Vermont would be go a long way to advancing energy equity in Vermont.

Establishing a centralized structure in Vermont to pursue, receive and distribute Federal and other funds, operating in a manner similar to a green bank, would ensure that Vermont does not miss out on opportunities to utilize federal funding and that these funds can be used in a manner that is more inclusive of local and underserved communities. An issue brief on Green Banks and the Inflation Reduction Act by the National Caucus of Environmental Legislators emphasized that states without green banks – or public entities with a similar function – would struggle to access $20 billion of funding made available through the Nation Clean Investment Funds and the Clean Communities Investment Accelerator. Without such a centralized entity it is unclear where these funds would go within Vermont and the state would lose out on the ability to influence how these funds are used to ensure local and underserved communities are prioritized.

Since 2011 more than ten states have created green banks to leverage public funds to spur private capital investment in clean energy projects. Green banks work with public entities, large capital investors, and smaller scale consumer investors through a variety of financial instruments including direct market-based lending or co-lending, loan guarantees, Property Assessed Clean Energy (PACE) financing, on-bill repayment programs and renewable energy power purchase agreements.

Examples of the local benefits these banks have been able to provide include:

- **Support for Municipal Solar**: The Connecticut Green Bank's "Solar Marketplace Assistance Program" (Solar MAP) provides important technical assistance for municipalities that want to go solar, and a similar program would be highly beneficial helping Vermont's many small towns and municipalities access the benefits of solar. Through Solar MAP, the Connecticut Green Bank assists municipalities with an assessment of their energy needs, conducts site analysis, solicits and reviews project bids, and leads them through the contract execution process. This eliminates many of the knowledge barriers for town and municipal staff and enhances local benefits.
- **Support for Community Solar**: The New York Green Bank provides construction financing for community distributed generation. This avoids several market barriers that can slow the deployment of community solar such as the inefficient use of equity funds and difficulty pricing the risk exposure from distributed generation.
- **Support for Commercial & Residential Renewables**: The Connecticut Green Bank supports building owners investing in solar by arranging power purchase agreement for building owners that allow no-up front cost solar investments and long-term stability in electricity prices. In addition, the Green Bank provides low-cost financing for residential solar and solar plus storage projects, including financing for roof replacement if it is necessary to solar. Providing support for both roof replacement and solar plus storage would be incredibly valuable in Vermont given the state's aging housing stock and the increasing threats of power outages as a result of intensifying extreme weather.

In short, Green Banks are able to provide a combination of technical and financial assistance that would be very valuable to Vermont towns, businesses, and families. The development of similar institutional capacity within Vermont would dramatical improve our chance of securing federal funding and maximize the benefits that we could provide with such funding.

Regenerative agriculture produces improved water quality, carbon sequestration and flood resilience. These Ecosystem Services (ES) are of great and increasing value to society and paying farmers is a very cost-effective way to secure them, as well as the rural community benefits that a healthy farm sector provides. Many farms will need to transform their production system to deliver these ESs. Transformation can be risky and/or expensive and farms are likely to need financial and technical support.

To help build and maintain a healthy farm sector in Vermont, **the Trust would provide coordinated financing and technical assistance (TA)** to farmers interested in transformation, **as well as ES payments** to any interested farmer based on quantified outcomes. For maximum effect, the Trust would operate two related funds:

- **The Outcomes Fund** would implement one or more pay-for-performance (PFP) programs that provide the framework, metrics and tools to quantify the relevant ESs and pay farmers for what they produce. The Outcomes Fund would aggregate carbon and water quality credits and market them through all available channels. Revenue from credit sales would be used to reward more farmers for environmental outcomes.
- **The Farm Transformation Fund** would provide interested farmers with the financial and TA resources necessary to achieve all-in soil health. A TA team of agronomy,

dairy/livestock, and farm finance experts would work with each farmer to develop a farm transformation plan. Each farm-specific plan would contain estimates of productivity and financial performance, as well as ES generation. Improved profitability and divestment of unnecessary equipment would free up cash for new investment. Debt restructuring may be necessary for some farms. The projected flow of ES could inform financing terms and justify public investment in the transformation.