

REBUILD BY DESIGN

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Hello, My name is Amy Chester, Managing Director for Rebuild by Design. Thank you Chairperson Hinsdale for inviting us here today to testify before the Senate Economic Development, Housing, and General Affairs in support of funding sources for needed climate infrastructure through a modest surcharge on property and casualty insurance.

Background on Rebuild by Design

Rebuild by Design was founded in the wake of Hurricane Sandy by President Obama's Hurricane Sandy Task Force in 2013. Our first task was to lead an international interdisciplinary competition to bring global expertise to communities and local governments in the affected region. The competition, named one of CNN's best ideas of 2013, gave way to a new model for engagement. In response to international interest, Rebuild continued as an organization and moved inside the Institute for Public Knowledge at NYU.

Rebuild develops innovative research, collaboration, and design processes to catalyze equitable climate adaptation and has partnered with over a dozen localities in the U.S., Latin America, Europe, and the Middle East to advance climate solutions including: effective engagement in Oakland; rethinking public space for climate change in Ciudad de Juarez; green infrastructure in Atlanta; "Rainproofing" New York City; redesigning an iconic site in Athens, Greece; and redeveloping a vulnerable mobile home park site in Boulder.

In the past ten years, Rebuild has catalyzed over \$8.6 billion for climate infrastructure investments which have spurred tens of thousands of jobs while setting a new bar for collaboration with the most physically and socially vulnerable communities.

Vermont Atlas of Disaster

Climate change is here and Vermonters are calling for action. Residents of the Green Mountain State have borne the impacts of severe floods, tropical storms, and winter storms.

In July 2023, two days of extreme heavy rainfall overtopped rivers, washed homes and cars away, caused landslides, and damaged over 4,000 homes and 800 businesses, upending thousands of lives, causing at least two fatalities, and disproportionately impacting low-income residents along the Winooski River. Early estimates found that the average loss to businesses is \$180,000 each¹. Our research published in [Atlas of Disaster: Vermont](#) (Rebuild by Design, 2022) found that Vermont:

- Experienced 17 federally declared major disasters due to extreme weather between 2011-2021.
- Fifteen of those events were due to tropical storms and flooding.
- Ranked 5th in the country for per capita post-disaster federal assistance.
- Ranked 7th in the country for number of recent disaster occurrences (tied with Alabama, Texas, & West Virginia)
- Every county has had 4 or more recent major disasters, and 6 counties have had at least 10.
- Washington County has had the highest number of disaster declarations in the state: 11 disasters.

Additionally, we know that though Vermont has taken steps to reduce greenhouse gas emissions and outlined a path toward climate resilience, the state has far to go to ensure its physical and social infrastructure is ready to withstand a future with more frequent and intense storms due to climate change, and more urgency is needed to cut carbon emissions and slow the rate of global warming. **Vermont needs sustainable sources of long-term climate adaptation infrastructure funding** to support climate adaptation measures that will reduce the physical, economic, and social tolls of future extreme weather events, support communities looking to move away from risky areas, and protect and restore the natural environment.

State funding would also leverage additional federal funding by providing a local match for programs that will be made available under the Inflation Reduction Act, the Infrastructure Investment and Jobs Act, Justice 40, and other federal sources. Investments can seed new industries in resilient agriculture, manufacturing, engineering, and ecology that will bring additional benefits to the State and create thousands of jobs.

The United States is always chasing the last storm. We need to get ahead of the physical and financial costs by utilizing creative and urgent financing solutions that invest in adaptation and mitigation efforts *before* communities suffer.

¹ Early estimates were presented at the Joint House Committee on Commerce and Economic Development Hearing, July 27, 2023.

Climate Change is Costing us Deeply.

Through local, state, and federal taxes, we are all footing the bill for climate change. In 2023 the United States experienced 25 billion dollar disasters - costing all taxpayers.² We pay for disasters through: loss of life; loss of property; business interruption and loss of productivity; costs of temporary shelter; costs of emergency services; costs of permanent relocation; public and essential facility loss of service; and physical and mental health costs.

Meanwhile, planning ahead pays off. The National Buildings Institute cites a 6:1 payback on investment for infrastructure that addresses flooding.³ Benefits include: avoided property losses; avoided business & education interruption; ecosystem benefits; avoided loss of critical infrastructure; economic development; increased tourism; revitalization of neighborhoods; improved public spaces; enhanced public safety; and increased competitiveness for the community. Additionally, the funding would support thousands of direct and indirect jobs and would seed a new industry for construction professionals, creating the demand for resilient infrastructure knowledge and experience.

Across the country, voters are supporting dedicated funding sources for climate infrastructure. Though Vermont cannot do a ballot initiative, looking at ballot initiatives nationwide gives us a good understanding of the support for climate infrastructure (Atlas of Disaster, 2022). In 2022 New York State voters overwhelmingly supported a \$4.2 billion Environmental Bond Act for ecological and resilient infrastructure by 67.5% (it received more votes than the Governor's successful election). In 2021, voters in Maine supported a \$100 million bond for infrastructure improvements that support safety and emergency management and infrastructure resilience. Also in 2021, voters in Virginia Beach supported a \$567.5 million bond for construction of flood mitigation measures. These are just a few examples, and you can find many more in our national Atlas of Disaster research.

Insurance Surcharges to Support Climate Infrastructure

Rebuild by Design supports many approaches to financing climate infrastructure - including establishing a climate superfund or a ballot initiative (not possible in Vermont), however, a modest insurance surcharge has some particularly great benefits.

Rebuild by Design has been working on the concept of insurance surcharges since 2019. We originally proposed this for New York State, at the same time that we proposed a bond act. Though the \$4.2 billion 2020 New York State Environmental Bond Act was pursued, and supported overwhelmingly by voters, we continue to advocate for state-level infrastructure funding sources supported by an insurance surcharge

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<https://www.climate.gov/news-features/blogs/beyond-data/2023-historic-year-us-billion-dollar-weather-and-climate-disasters#:~:text=In%202023%2C%20the%20United%20States,2023%20disasters%20totaled%20%2492.9%20billion.>

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[https://www.pewtrusts.org/en/research-and-analysis/articles/2018/01/11/every-\\$1-invested-in-disaster-mitigation-saves-\\$6](https://www.pewtrusts.org/en/research-and-analysis/articles/2018/01/11/every-$1-invested-in-disaster-mitigation-saves-$6)

The Atlas of Disaster, modeled the impact of a modest two-percent surcharge for each individual state and nationwide and found that Vermont could support \$600 million in infrastructure over 10 years (using 2019 premium data). Our model evaluated all types (lines) of Vermont's property and casualty insurance, taking out medical malpractice and workers' compensation (as they do not have a strong policy connection) and bonded the surcharge over ten years. Further, if every state took this action, \$287 billion could be raised across the United States.

As climate adaptation and hazard mitigation interventions are implemented, the risk of loss or damage will decline, reducing the property and casualty payouts for some insurers (such as those who write policies for commercial flood and basement backup riders). Therefore, this program could lower certain payouts over time for flood insurance (both public policies underwritten by the National Flood Insurance Program and a growing number of private policies underwritten by insurance companies), homeowners insurance, for non-flood damages (i.e. wind, fire, etc.), basement backup riders (for basement flooding not covered by flood insurance), auto insurance, etc., which will lead to lower actuarial rates. Specifically, for communities in the flood zone who take advantage of FEMA's Community Rating System, it would fund community-wide infrastructure and policy investments that would lower flood insurance payments five to 45 percent community-wide, magnifying the opportunity multifold.⁴

A surcharge on certain types of property-casualty insurance is equitable because community members with more resources are likely to insure more numerous, expensive, and energy-consumptive items (e.g., multiple homes, boats, cars), while community members with less resources are likely to insure less or have no insurance at all. Additionally, states could exempt lower-income policyholders from the surcharge or exempt vital community services such as affordable housing or schools. States can also decide to hold some of this allocation aside before it is leveraged for the maintenance of new climate infrastructure.

Industries are likely to oppose a surcharge because it slightly increases the cost of their service. However, paying for protection now is better than suffering later. This charge will be administered equally across insurance companies so it neither advantages or disadvantages any insurance company and will support infrastructure that would ultimately benefit insurance companies with lower payouts after a climate event. Moreover, if we do not address this issue in the immediate years, Vermont will follow states such as Florida, Louisiana, and California that are currently in a crisis as insurance companies triple rates, cut policies, and need to be bailed out by taxpayers because they cannot support payouts from the current and predicted extreme climate events.

Vermont can ensure that this surcharge will only be used for climate infrastructure by:

- Determining in legislation the sole purpose for these fees in the creation of the surcharge

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https://www.fema.gov/sites/default/files/documents/fema_community-rating-system_local-guide-flood-insurance-2018.pdf

- Creating a public benefit corporation or other entity that is solely responsible, bypassing the City's general fund
- Leveraging these revenues through bonding, which gives the state additional capital and ensures that bondholders would hold the state accountable that the funds are used for the intended purposes

As the United States has experienced with major climate events, the cascading effects of the storm led to property loss from water and fire damage, and loss of life which in many cases led to insurance payouts. This program will reduce the underlying exposure to insurance and reinsurance by mitigating future risk.

Importantly this fund will not preclude Vermont from getting federal funds after a disaster. After a disaster (which is considered a singular event), any state that deems there is more damage than the state can handle, can ask the federal government for funds under the Federal Disaster Relief Act (Public Law 81-875), which authorizes the President to provide supplementary federal assistance. The federal government will examine the damage assessment submitted by the state government to determine the level of aid needed to rebuild. The federal government does not look at the actual money in the State's coffers, such as this proposed fund, which would likely already be budgeted for another purpose. Furthermore, this fund could actually help leverage federal disaster dollars. FEMA programs often have a cost-share component. These funds could enable the state to provide that non-federal match on behalf of communities leveraging the initial investment for a larger payoff.

Better protection from storms and disasters means less disaster aid money needed to address the damage (including emergency personnel, degradation of infrastructure, loss to the economy, fewer casualties etc.) which means less money would be needed from the federal government to build back. Many states have capital programs and infrastructure banks, this would be similar, though earmarked to specifically address flooding, lowering the overall risk that communities face, and reducing the suffering that Vermonters experience.

Support for S.145/H.105

Rebuild by Design is very pleased that Senator White introduced S.145 and we have suggestions for revisions:

- Legislate a percentage instead of a set amount. This will ensure that the fund will grow over time and be responsive to the needs of Vermonters.
- Determine where the money will go in the legislation. The NYS Bond Act included buckets such as \$1.1B for water infrastructure, \$250M for retreat, \$650M for Open Space Conservation and Recreation, etc. and this will ensure that the money goes to its intended uses and voters will support the uses.
- Create a collaborative process to ensure that Vermonters are part of the solution. Our Atlas of Disaster report provides a step-by-step guide for states to create a truly collaborative process to design and implement climate infrastructure that will not only

address the increasing threats of climate events, it can also enhance our communities in any weather by rethinking our parks and open spaces, roads and homes.

Support for H.809/S259

We are also in support of creating a funding stream through a state-level fund modeled off of the federal superfund. Holds polluters accountable for profiting on the back of our health and environment. We like it because there is a direct policy connection - those who made the mess should fund the cleanup, and it is modeled to raise \$2.5 billion which would put Vermont on the road to adaptation.

How should the funding be spent?

As I mentioned earlier in this testimony, collaboration with stakeholders is an essential part of climate adaptation. I would like to take this opportunity to share three large-scale climate adaptation projects from the Hurricane Sandy affected region which are excellent examples of community collaboration to design and implement large scale adaptation infrastructure. In addition to large scale projects there are dozens of ways that communities can adapt from individual building infrastructure to regional infrastructure. Rebuild by Design can share best practices on these projects:

- Hoboken NJ, **Rebuild by Design: Resist, Store, Delay, Discharge**: a comprehensive plan to address storm surge and stormwater flooding which has reimagined the City's parks and streetscape to address climate challenges. (see [A Climate Change Success Story, NYTimes 2023](#))
- Staten Island NJ, **Living Breakwaters**: Using ecological practices, the project creates off-shore breakwaters created to enhance habitat and slow down wave destruction by teaching the community about climate change. This project recently won the international prestigious [Obel Award](#)
- New York City, **The BIG U**: An award winning [2.2 mile vision](#) around the lower Manhattan floodplain that builds storm surge protection into public space and parks.

Conclusion

Climate change is here and it's only going to become more severe. Vermont needs sustainable funding to proactively plan and thoughtfully implement climate infrastructure. A surcharge on certain types of insurance would offer an economically progressive solution to create the needed funds to equitably adapt to climate change and ensure that communities do not suffer any further.

I thank the committee for this invitation and opportunity and am available for any questions now or in the future.