MEMO

To: Vermont Climate Council

From: Rural Resilience and Adaptation Sub-Committee

Re: Recommendations for Climate Council ARPA Funding

Date: December 17, 2021

The Rural Resilience and Adaptation Sub-committee appreciates the opportunity to provide input to the Vermont Climate Council regarding funding priorities to support Pathways and Strategies in the Climate Action Plan. The first priority listed below originated from the Agriculture and Ecosystems Sub-committee. This recommendation closely aligns with the priorities of the RRA Sub-committee and we offer our full support of this proposal.

- A consistent theme across the Agriculture & Ecosystems and Rural Resilience & Adaptation subcommittees is the need to increase our investments in flood resilience, and realize the myriad co-benefits those investments will yield. Flood resilience, which is achieved through the restoration and reforestation of floodplains, wetlands, and river corridors, right-sizing culverts to reduce infrastructure vulnerability, removing dams, incentivizing water storage through expansion of easements, among other efforts, is a critical climate strategy for Vermont. Leveraging ARPA funds to support flood resilience would have lasting, positive impacts for Vermont and Vermonters, and would meet the ARPA eligibility criteria as follows:
 - Funding would be used for implementable projects that support both built and natural infrastructure and could be allocated by the 2024 deadline.
 - Low-income Vermonters are more likely to live in flood hazard areas (e.g. 12% of mobile homes in mobile home parks are located in floodplains versus 4% of single family homes).
 - Given Vermont's historic settlement patterns, many of our villages and downtown centers – our towns' economic hubs – are located in or near flood hazard areas.
 - Strategic investments should be directed by using existing tools, like AOT's
 Transportation Resilience Planning Tool (TRPT) and culvert upgrade inventory and DEC's
 Functioning Floodplain Initiative. Recommended ARPA investment: \$40-50 million
- Vermont's grid is increasingly susceptible to climate-change induced severe weather, mainly due to the rural nature of our landscape and our unique geography locally in the northeastern U.S. Threats to the grid include more frequent, stronger storms, high winds, ice, and heavy, wet snowstorms along with more frequent flooding from increasing heavy precipitation events. In addition, there are increasing cyber security threats to the grid as well and therefore additional risk to rural communities increasingly dependent upon it for transportation and heating and cooling. As Vermonters come to rely increasingly on electricity for heating and transportation, investing in grid resilience to keep pace with a changing climate will be essential. Seek federal stimulus (ARPA) to defray costs of utility resilience upgrades that exceed benefits to ratepayers, such as:
 - Ubiquitous communications networks that enable full utilization and participation of distributed energy resources in an interactive grid.

- Resilience Zones: batteries installed at or near critical facilities, potentially paired with solar (and/or small wind) and with a microgrid /islanding where possible, to allow them to continue to operate in the event of extended disruptions to electric service.
- Strategic upgrades to substations, distribution, and transmission capacity across the Vermont grid needed to enable the state's renewable and electrification goals, after first exploring feasibility of any lower-cost options, e.g. flexible load management, curtailment, and storage.
- Emerging non-wires technologies that address major challenges to system resilience (e.g. long-duration outages).
- Sub-Committee recommend budgeting \$40-50 Million, prioritizing investments that lack other sources of funding, that leverage other funds, that promote the co-benefits of equity and greenhouse gas reduction, and/or that primarily benefit rural communities
- Fund Projects Identified in Municipal Vulnerability Index to Increase Local Resilience Efforts- The GWSA charges the RRA Sub-Committee with developing a municipal vulnerability index to determine which towns in Vermont need enhancements in resilience. ARPA presents a unique opportunity to fund projects that are identified in the assessment as vital to increasing overall resilience to the impacts of climate change to the extent they are eligible for funding. The RRA sub-committee recommends setting aside funding to be allocated as grants to towns that are found to be the most vulnerable to address their most pressing climate change resilience needs in line with eligibility requirements of ARPA.