

Vermont Low Income Trust for Electricity

# VLITE Impact Report 2021-2022



### Contents

From our Board President Tony Klein and Executive Director Gabrielle Malina	3
VLITE Financial Information	4
Grants by Investment Category	5
VLITE and the VELCO Board	6
Projects	6
FOCUS ON WORKFORCE	6
ReSOURCE – Youthbuild and training intensives in weatherization	7
Vermont Adult Learning Energy Works	8
Vermont Works for Women – Trailblazers Green	9
EDUCATION AND COMMUNITY INVOLVEMENT	10
Vermont Energy Education Program (VEEP) — K-12 energy-focused education programming	10
Vermont Council on Rural Development – Community Climate and Energy Programs	11
TRANSPORTATION	12
CarShare Vermont - Greenlining Shared Mobility	12
Vermont Foodbank	13
Capstone Next Gen Mobility – Rural Ride Share	13
THERMAL EFFICIENCY and NEW TECHNOLOGY	14
Neighborworks HEAT Squad-audits and weatherization	14
Office of Economic Opportunity - Vermiculite Removal	15
EFG ZEN Comprehensive	15
3E Thermal – Energy Improvements in Affordable Multifamily Buildings	16
Housing Initiatives, Inc. – Bridge Housing	17
City of Burlington Shelter Pod Project	18
Expansion of the State Energy Management Program to Municipalities	18
Randolph Area Community Development Corporation (RACDC) Design for DC-Based Microgrid	18
East Calais General Store and Apartments Energy Overhaul	19
Milk with Dignity – Dairy Farmworker Sustainable Housing	19
Grants to Municipal and Cooperative Electric Utilities	20

Since it began distributing funds in 2013, VLITE has invested \$9.8 million in projects that advance the state's energy goals an average of \$980,000 per year.

# We are happy to present this 2021 - 2022 Vermont Low Income Trust for Electricity - VLITE Impact Report.

Since its creation in 2012, VLITE has awarded over \$9.8 million, funding dozens of projects that advance Vermont's Comprehensive Energy Plan with an emphasis on the energy needs of low and moderate income Vermonters.

The VLITE board awards grants to Vermont-based nonprofits, utilities and governmental agencies working in the areas of thermal efficiency, electric efficiency, transportation, energy education and community involvement.

# VLITE's strengths include our ability to fund diverse energy-related projects and respond quickly to needs.

VLITE funding often attracts other funders to a project. For example, when Vermont Council on Rural Development sought to start a "small grants" pool to support projects by community-based organizations, VLITE provided seed funding of \$15,000 and other funders quickly joined, bringing the grant pool up to \$40,000. In its first year the "Climate Innovation Fund" supported twenty community projects - from window inserts to e-bikes in libraries - from all around the state. Here are some other innovative projects that VLITE has funded in 2021 and 2022:

- The **City of Burlington** is constructing thirty shelter pods to house people experiencing homelessness and linking them to services. In conjunction with the Burlington Community and Economic Development office, VLITE funded solar PV panels on the rooftops of the two community buildings that will help offset energy operating costs.
- **Capstone Community Action** is launching "Community Rides," to offer car- and rideshare services to last-mile rural locales. This will serve Vermonters without cars and help single-car families get to work, medical appointments, and where they need to go.
- Vermont's municipal and cooperative electric utilities' energy transformation projects, ranging from electrification and weatherization incentives for homeowners to bringing a 21st century hydroelectric facility online, that benefit low and moderate income customers.



Tony Klein Board President



Gabrielle Malina Executive Director

### **VLITE Financial Information**

VLITE receives around \$1 million per year in dividends as a shareholder of Vermont Electric Power Company, Inc - VELCO - the state's high voltage transmission company. VLITE uses these dividends to fulfill its mission of advancing state energy policy as set forth in the Comprehensive Energy Plan, particularly by funding projects that address the needs of low income Vermonters. VLITE's administrative expenses are less than 10 percent of its budget.

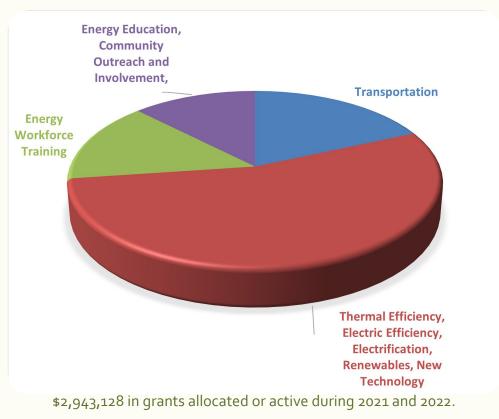
Since it began distributing funds in 2013, VLITE has invested \$9.8 million in projects that advance the state's energy goals - an average of \$980,000 per year. The VLITE board's goal has been to "keep that money moving", in other words, to distribute roughly as much money in grants each year, as comes in through VELCO dividends. In 2021 VLITE allocated \$718,000 and in 2022 \$1.065 million.

VLITE Balance Sheet		
	December 31, 2022	December 31, 2021
ASSETS		
Current Assets	\$1,394,445	\$1,878,807
Other Assets/Common Stock - VELCO	\$8,990,300	\$8,990,300
Total Assets	\$10,384,745	\$10,869,107
LIABILITIES & EQUITY		
Liabilities		
Total Current Liabilities/Grants Payable	\$1,113,264	\$840,765
Total Liabilities	\$1,113,264	\$840,765
Equity		
Total Equity	\$9,271,481	\$10,028,342
TOTAL LIABILITIES & EQUITY	\$10,384,745	\$10,869,107

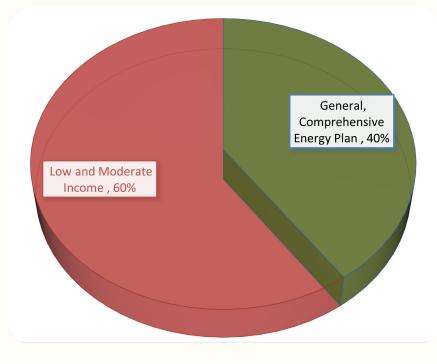
VLITE's administrative expenses are less than 10 percent of its budget.

### **VLITE Financial Information (cont.)**

#### **GRANTS BY INVESTMENT CATEGORY**



# MORE THAN HALF OF VLITE GRANTS SUPPORT PROJECTS EMPHASIZING THE NEEDS OF LOW AND MODERATE INCOME VERMONTERS.



## VLITE and the VELCO Board



As a 38 percent shareholder in VELCO, VLITE is responsible for naming three independent directors to the VELCO board. The Public Service Board established this structure to balance the governance of VELCO and infuse a permanent public good focus on the board.

VLITE names VELCO directors who bring perspective on energy and equity to the conversation. Michael Dworkin, Theresa Alberghini-DiPalma and Cort Richardson served as VLITE's independent representatives starting in 2012. The VLITE board most recently named Maura Collins of Essex. Collins is the Executive Director of the Vermont Housing Finance Agency. Deb Markowitz has been nominated by VLITE and is expected to be officially appointed to the VELCO board in April 2023. Ms. Markowitz has had a long career in public service and served as Vermont's Secretary of State and later as Secretary of the Agency of Natural Resources.

### Projects

#### FOCUS ON WORKFORCE

The COVID-19 pandemic brought unprecedented levels of federal funding to infrastructure, resilience and energy projects. In 2022 alone, the General Assembly allocated \$80 million to weatherization efforts. Vermont has some of the most aged housing stock in the country, and with our energy and climate goals to weatherize tens of thousands more homes by 2030, we need more people entering the energy workforce.

VLITE is supporting three efforts to address this energy workforce need. Weatherization work is critical but the job itself is difficult. The result of that difficult, physically challenging work is warmer, healthier homes and the opportunity to move up a job-improvement ladder.

- <u>Training programs</u> by Vermont Adult Learning (VAL) and ReSOURCE provide the context for people entering these jobs that they are an essential part of improving people's quality of life in their homes. Trainees learn about building science and the role their work plays in addressing carbon emissions and making spaces more livable. VAL and ReSOURCE work with un- and underemployed Vermonters in the fields of weatherization and cold climate heat pump installation in underserved areas of the state.
- <u>Vermont Works for Women</u> offers high quality trainings to women to enter jobs in the renewable energy workforce like solar installation.

## Projects (cont.)

#### ReSOURCE – Youthbuild and training intensives in weatherization



ReSOURCE has been a fixture in Vermont since 1991, empowering individuals and strengthening Vermont communities through Workforce Development, Poverty Relief, and Environmental Stewardship.

ReSOURCE received a VLITE grant of \$80,000 in 2021 to provide energy job skills and construction training through its Youthbuild program and newly designed 6-week training intensives. Here are some of the outcomes:

- Enrolled 26 YouthBuild and 37 Intensive trainees
- 93% have graduated/ completed training requirements
- 86% of graduates earned National Center for Construction Education & Research NCCER or other industry recognized certification
- 100% earned OSHA-10 safety certification
- 93% of Intensive graduates were placed into employment within 6-months
- 96% reporting wages above the VT minimum wage of \$12.55, reporting the average wage of \$15.97.
- 20 units of affordable housing had weatherization upgrades completed
- 6 units of affordable housing had construction/rehab work completed
- 13 residential solar hot water systems were installed

ReSOURCE's goal is to provide trainees the skills and personal development training they need to improve their chances of obtaining and maintaining meaningful employment at a livable wage. They create a supportive community of trainers and employer partners. ReSOURCE provides nurturing work and classroom environments, including soft skills training, and provides opportunities for positive behavioral changes in its students and trainees.

The YouthBuild program not only benefits low-income youth with valuable job-skill training, but also people living in Vermont through the rehab and weatherization work on aging affordable housing stock.







#### Vermont Adult Learning Energy Works



Vermont Adult Learning (VAL) received a \$300,000 grant from VLITE over several years to create an energy training program in underserved Rutland County. As a result, the need for trainings in other geographic areas soon became apparent.

The idea of Energy Works was to offer several trainings in weatherization, cold climate heat pump installation and solar installation. Energy Works serves as integral pathways to connect low income and/or low-skilled Vermonters to well-paying jobs in the energy and construction fields. As an Integrated Education and Training program, VAL helps participants earn their high school credential, if needed, while training.

Despite early challenges filling seats in weatherization trainings, recently VAL had its first cold climate heat pump training and its first weatherization training in St Albans. Both trainings were at capacity. A cold climate heat pump trainee said, "Very detailed and comprehensive. Taught us what we needed to know."

VAL has secured additional funding ensuring the sustainability of its Energy Works program. It will continue to grow. VAL would like to make Energy Works sessions accessible to New Americans. So far 34 participants have completed Energy Works courses. 12 of those earned Building Science Principles Certification. 17 of those are employed in weatherization.

Trevor, a 39-year-old Rutland resident is excited. After completing Energy Works, VAL's newly-launched workforce training program, he has a solid job offer as a Weatherization Crew Member at BROC Community Action. This follows a period of absence from the work force due to health issues.

Weatherization workers help customers use less energy, lower their bills and reduce their impact on the environment. They improve the efficiency of heating and cooling ductwork by repairing windows, insulating attics, basements and walls, and other areas.

"I'll be earning drastically more than I did in my last job and there's room to advance," Trevor said.

"My daughter would sometimes ask me, 'Dad, what do you do?' I'm so excited to tell her about my new job!"



### Vermont Works for Women – Trailblazers Green

Vermont Works for Women (VWW) is using a VLITE grant of \$60,000 to expand its Trailblazers training program. The project aims to increase women in the energy workforce.

The Trailblazers Green program combines hands-on hard skills training in the high-demand fields of solar and renewable/green energy with VWW's effective soft skills curriculum and employment support services to provide women with the skills and confidence they need to get started in renewable energy careers. In collaboration with partners and employers in the renewable energy industry, this program brings opportunities to new participants seeking on-ramps to good paying jobs to provide for their families – while also meeting labor demands of industries in need of skilled workers



A Trailblazers Green student carries a solar panel

In the summer of 2022, VWW held four-week hands-on training for ten

participants. All eligible participants completed three-week work experiences, some working with multiple employers. Employers included: CVOEO and Capstone weatherization, iSun, SunCommon, Bellwether Craftsmen, Burlington Electric Department Forestry division, and Shelterwood Construction. Student participants received customized employment supports. VWW provides gender equity training and consultation to those participating Trailblazers Green employers.

One graduate of the first cohort had this to say, "Because of this program I now have a new wonderful career that I love. I also have a great group of new friends and VWW as a wonderful supportive organization that I will be recommending to as many people as I possibly can."

Another cohort is planned for Spring 2023.



The mission of Vermont Works for Women is to promote economic justice by advancing gender equity and supporting women and youth at every stage of their career journeys.

### EDUCATION AND COMMUNITY INVOLVEMENT

# Vermont Energy Education Program (VEEP) – K-12 energy-focused education programming

VEEP provides energy education to students and teachers in schools throughout the state. VEEP engages students with hands-on experiential programming, that is standardsaligned, and science-based, building curiosity and a deep understanding of energy and climate. VEEP programs are designed to encourage the application of learning beyond the classroom, transforming behavior and choices at home and in communities. These programs helped students develop valuable critical thinking and analysis skills, and exposed them to career pathways related to green energy.

A \$50,000 grant to VEEP helped bring interactive workshops, equipment, and action programs to 265 Vermont educators (often across many interactions and programs) across 76 different towns. VEEP's 65 energy teaching partnerships and 117 kit deliveries brought high-quality "hands-on, mindson" energy and climate education to bear for more than 5,000 students. Professional learning programs engaged 67 Vermont educators and brought VEEP's curricula and instruction to over 2,000 student engagements. There were 184 Vermont homeschool registrants in virtual STEM lab programs.

VEEP's deepening commitment to equitable program access focused it on economically marginalized and higher energy



Energy Transfer and SunKit at Rutland Town

burden communities in our outreach and programming. We invested in professional learning and capacity building in order to deepen our organizational commitment to energy equity and our practice and programs.



50 Vermont high school students participated in VEEP's Youth Climate Leaders Academy

#### Vermont Council on Rural Development – Community Climate and Energy Programs

The Vermont Council on Rural Development (VCRD) received a 2-year grant of \$160,000 from VLITE in 2020-2021 for its suite of community based climate and energy programs, including, the Climate Catalyst Leadership Program, the Climate Economy Resilient Communities Program (formerly the Climate Economy Model Community Process), and the Climate Catalyst Innovation Fund. Through these programs VCRD sought to work with Vermont towns and local leaders to help them identify and implement concrete actions that reduce fossil fuel emissions and cultivate economic innovation, as well as strengthen community through extensive engagement.

The Climate Catalyst Leadership Program included three cohorts with over 45 local leaders realizing projects in their respective communities. Another cohort of approximately 17 local leaders will begin in 2023. Examples of





the range of projects from individual cohort participants include building a community solar project, developing a process for implementing regional and town energy plans, and hosting an e-bike and tool lending pilot program.

The Model Communities engagement process was complicated by Covid meeting limitations but resumed in 2021 in Rochester, Hancock and Granville with the "Rochester Area Climate Initiative." Through the process, the community prioritized energy-related projects, including establishing an EV charging station, retrofitting town buildings, evaluating the region for solar, and promoting the Weatherization Assistance Program. As a result, Green Mountain Power identified Rochester as a site for a new "Resiliency Zone" that will combine solar generation and storage to increase grid resilience in Rochester Village.

The newly established Climate Catalyst Innovation Fund provided 18 microgrants totalling \$40,000 in 2021 to communities around the state for a slate of community-oriented projects including multiple Window Dressers window insert builds, education for community members about efficient wood burning practices, installing additional public EV charging stations, and support for a public demonstration center for regenerative agriculture. The Innovation Fund has expanded again, starting with \$15,000 in VLITE seed funds and leveraging additional monies from VSECU and the Vermont Community Foundation, now totalling over \$80,000 for this engaging community opportunity.





In fall of 2022 twenty-five projects were awarded a total of \$82,912 across the state in towns such Brandon, Cavendish, Bradford, Hartford, Enosburg, and more!

VCRD received a new 2-year grant of \$190,000 in 2022 to continue work through 2023 and improve upon its past successes. There is an urgency to build local capacity in a time where state and federal resources exist to support significant change. VCRD will expand the number of communities it works with in launching the Climate Economy Resilient Communities Program. VCRD is continuing the Climate Catalyst Leadership Program as well as the Innovation Fund in 2023.

#### TRANSPORTATION

#### CarShare Vermont - Greenlining Shared Mobility

CarShare Vermont received a \$75,000 VLITE grant to expand access to electric vehicles for its low income customers through the launch of the Greenling Shared Mobility program. During the pandemic, CarShare membership increased amongst low and moderate income customers who depended on the service increasingly to get around. And while there are generous incentives for purchasing EVs, for many people, vehicle ownership is not an affordable or practical investment, particularly in the urban environment of Burlington.

The grant funds were used to expand the number of electric vehicles in its fleet, build charging infrastructure in key locations in or near affordable housing, and offer free subscriptions to the service and reduced driving charges for some income-qualified drivers. By deepening affordability CSVT sought to increase participation in carsharing by more low-income households, thereby reducing car dependence, reducing greenhouse gas emissions, saving resources, and supporting EV adoption.

VLITE funds were used toward the purchase of three 100% electric Chevy Bolts. These vehicles, in addition to a plug-in hybrid electric, were placed at four affordable housing developments. CarShare Vermont paid for the charging infrastructure at all sites and launched an extensive outreach campaign to increase awareness of the program.

The Greenlining vehicles are all in service and being used, Mobility membership (low-income) has increased by 50%, MobilityShare members are using the EVs and most vehicles in our fleet, and CarShare Vermont continues to learn and identify ways to further increase access to its service. CSVT sees the Greenlining Shared Mobility project as an ongoing program that it plans to sustain well into the future.



From Carshare VT Vimeo "Meet Stephen --

"Carshare's made my life so much easier... I have all of the luxuries of a car, with actually minimal money."

#### Vermont Foodbank



A grant of \$115,000 to the Vermont Foodbank is helping electrify the organization's passenger fleet. So far, Level 2 EV chargers have been installed at Brattleboro and Rutland facilities and the Barre headquarters will

soon get one. The Foodbank has also purchased a Subaru Solterra all-electric vehicle and a Hybrid Toyota RAV4. These vehicles, and a third all-electric car will be regularly used for transporting staff to direct service programmatic sites such as Veggi Vango produce distribution events operating at schools and hospitals, and between VF facilities.

Two out of five Vermonters experienced food insecurity in 2022 and the Vermont Foodbank is supporting those individuals and families. VLITE is pleased to support Foodbank's commitments to do this important work in a sustainable way.

#### Capstone Next Gen Mobility – Rural Ride Share



Capstone Community Action received a multi-year VLITE grant for \$275,000 to create a rural car share and ride share program using electric and high efficiency vehicles. The problem that Capstone is addressing is twofold: mobility and access for low income families without reliable transportation options in rural Vermont and greenhouse gas emissions

from transportation. It can be very difficult to get to medical appointments, to work, to buy groceries when you don't own a car and live beyond the area of public transportation. This inability to reliably move around is disruptive and stressful. Capstone's vision is to offer an on-demand ride model (similar to Uber/Lyft) to vulnerable Vermonters that lack access to transportation.

A new nonprofit called Community Rides Vermont was established to operate the service. Community Rides Vermont has recently signed a contract with Green Mountain Transit and VTrans that will establish a steady revenue stream by subcontracting to operate some of the Medicaid-funded and Elderly and Disabled Transport through GMT in Washington County. These secure government contracts will provide a positive revenue stream to cover the direct cost of operating a vehicle for the first miles driven. Community Rides VT plans to pilot a new ride service this year that provides same day rides at an affordable price. Rides will be provided in a fleet of all electric vehicles, with the goal to demonstrate the technology to community members, and to decarbonize State expenditures in subsidized rides. Community Rides Vermont is scheduled to launch operations this coming April.

The problem that Capstone is addressing is twofold: mobility and access for low income families without reliable transportation options in rural Vermont and greenhouse gas emissions from transportation.

### THERMAL EFFICIENCY and NEW TECHNOLOGY

### Neighborworks HEAT Squad- audits and weatherization

Neighborworks of Western Vermont HEAT Squad serves low and moderate income homeowners with energy audit and weatherization services. In 2021 and 2022 Neighborworks worked in Bennington County and the Northeast Kingdom providing 60 low-cost (\$50) energy audits and completed 35 weatherization projects.



A HEAT Squad customer stands in front of his new insulation. The smile is from decreased heating costs and a cozier home!

HEAT Squad provides guidance for homeowners to move forward with their weatherization project, helping to prioritize work, referrals to trusted independent contractors, oversight of the project, quality review of the work, offering in-house financing options, and obtaining rebates for lowmoderate income households.

The VLITE grant of \$125,000 allowed Neighborworks to leverage around \$268,000 in cash match and inkind contributions.

Of these 35 low-moderate income households, who had an income range from 30% to 120% AMI, that completed a weatherization project, they now live in warmer, healthier, and more energy efficiency homes. Combined they are saving over \$17,000 a year on energy costs, reducing carbon emissions by 74 tons a year, and providing over \$240,000 in revenue to local contractors in project costs.

In 2022 Neighborworks received a new VLITE grant of \$198,000 for an enhanced scope of work. Neighborworks HEAT Squad will provide 80 educational energy audits/assessments resulting in 45 completed weatherization projects in Bennington County and the Northeast Kingdom. Twenty of those weatherized homes will also include the installation of a single zone cold climate pumps.

After



Before

#### Office of Economic Opportunity - Vermiculite Removal

VLITE supports the work of OEO and the weatherization agencies and believes that work is crucial to helping low income Vermonters weatherize their homes. Vermiculite removal is a mandatory requirement before homes may be weatherized. But funding for weatherization does not usually include allowance for this costly repair. VLITE's funding of vermiculite removal allows the weatherization agencies to address those homes rather than having to defer services. OEO braids together VLITE funding with its own vermiculite funds, incidental repair funds, and Zonolite Trust funds in order to pay for the average abatement project which can run from \$11,000 to \$16,000 per home. OEO leveraged \$147,000 additional dollars to match the VLITE grant of \$125,000.

The result of the VLITE grant and additional funds were that 27 homes were able to receive weatherization services where they otherwise would not have been eligible. These homes then saved approximately 31 percent in energy costs, putting money back in households pockets from their reduction in their heating and utility bills. 100 percent of the VLITE funds were used to reimburse licensed Asbestos Abatement Contractors for the remediation of vermiculite insulation in low-income Weatherization Clients homes, and no funds were used for administrative costs.

### Energy Futures Group – Zero Energy Now - ZEN

The Energy Futures Group received a \$30,000 grant from VLITE to provide additional incentives to income qualified homeowners participating in the Zero Energy Now (ZEN) program. ZEN is a pilot program providing a comprehensive approach to energy retrofits in existing homes, incorporating weatherization, solar, heat pumps and other technologies. It optimizes the installation of various clean energy technologies to align with the specific characteristics of each house; rather than taking a piecemeal approach to energy improvements, the ZEN program coordinates technologies to achieve the greatest savings possible.

The VLITE grant provided an additional \$3,000 incentive to ten low-income Vermont households so that they could participate in ZEN, which served 65 homes overall. The average household size of the VLITE recipients was two people, with an income of \$48,529. The average project cost was \$58,677 and average cumulative incentives received was \$20,838 (or 36% of the initial, total project cost). These incentives include the ZEN program "up-to-\$5000" incentive, various Vermont utility incentives, state/federal tax credits, an EV charger incentive, and the VLITE incentive.

According to the ZEN modeling process, these ten low and moderate income homeowners are projected to save 67% on their annual energy costs, 94% of their previous annual energy use, and emit 96% less carbon through their home's electrification process.

One homeowner who received incentives had this to say: "I'm delighted to have been able to participate in the ZEN program...I now have solar panels to provide electricity, interior storm windows, a newly insulated attic, and heat pumps to warm my home in winter and cool it in summer. As a 78-year-old widow and a retiree, I could not have imagined making such long-lasting home improvements at all, but with the help of the special eligibility incentives, the impossible became the possible. I especially appreciate the fact that these new systems require only modest physical effort on my part to operate them."

#### 3E Thermal – Energy Improvements in Affordable Multifamily Buildings



3E Thermal received a VLITE grant of \$100,000 to provide incentives to private landlords of affordable apartment units for health and safety measures that are necessary prior to performing energy improvements.

<sub>3</sub>E Thermal helps renters in affordable housing by helping the owners improve the energy profiles in their buildings thus lowering energy costs and making homes more comfortable improving quality of life. Renters do not get to exert the same control over energy choices that homeowners have and often pay high energy costs per capita. It is up to the building's owner to invest the money to improve a building's energy profile. But in many cases renters pay their own utility bills, and so the owners may not be as inclined to take on those projects.

Some owners of affordable rental buildings will start to embark on building energy improvement projects only to learn that there are many expensive health and safety improvements that are mandatory before they can qualify for financing or assistance with the energy projects. These costly but necessary improvements may include fixing roofs, vermiculite removal, and re-wiring units to be up to code and able to accommodate further electrification initiatives. The grant was designed to provide incentives for landlords so that these costly projects would not act as barriers towards energy improvements.

<sub>3</sub>E Thermal assists owners of affordable multifamily housing statewide by providing free analysis and consulting services and acting as a single point of contact to coordinate services of Efficiency Vermont and the Weatherization Assistance Program.

Projects that used VLITE funds in this grant leveraged \$458,282 in other source as well as investing \$441,000 of their own funds.

The 3E VLITE grant assisted 15 privately owned projects to move forward with comprehensive weatherization projects that may have otherwise been stalled or not completed at all.

These 15 projects consisted of 18 buildings with a total of 95 residential affordable housing units.

Metrics for those 95 units:

- VLITE funding \$74,375
- MMBtu savings 3,706.3
- KwH savings 62,823
- CO2e savings 702,156 (LBS)

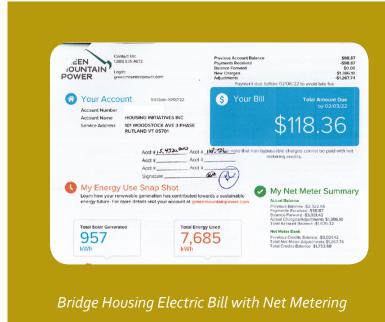
### Housing Initiatives, Inc. – Bridge Housing

Housing Initiative, Inc. (acting as fiscal agent for the Rutland Housing Authority) received an \$80,000 grant from VLITE to install solar PV panels on top of the roof of the Rutland Area Bridge Housing transitional shelter apartments. These apartments allow individuals and families experiencing homelessness to access a full suite of services while they are finding permanent housing. The 71,000kWh per year generated by this system will be the equivalent to about 50 metric tons of avoided CO2.

The primary problem addressed was the upfront financial barrier for low-income communities to participate in just and equitable clean energy opportunities. Clean energy solutions typically require upfront capital investments that affordable housing providers like Housing Initiatives Inc. cannot often afford. The impact was removing or significantly reducing electrical utility costs for the Rutland Area Bridge Housing project operating budget. The Bridge Housing building was conceived as a largely electrified, well-insulated building with good Southern exposure. It was an ideal candidate to offset its electricity costs by generating solar in-location.

Bridge Housing opened on December 20, 2020 and will serve as a vital community resource for homeless individuals and families for years to come.

The project was a success. Removing or drastically reducing electrical utility costs with the PV system



allows RHA/HII to afford supportive service coordination that help residents transition from homelessness to permanent housing. Combined with the energy efficiency and heat pump technology incorporated into the project, the solar system allows RHA/HII to affordably deliver healthy indoor air quality for residents' who often have chronic health conditions associated with homelessness.



### City of Burlington Shelter Pod Project

The City of Burlington Community and Economic Development Office (CEDO) received a \$50,000 grant from VLITE. These funds are leveraging more than \$1.5M in capital investment in an energy resilient emergency homeless shelter. 30 small "pod" shelters will house houseless individuals in a supportive setting, linking them with services and moving towards permanent housing. The VLITE award is being used to outfit two on-site community buildings – one a bathroom and laundry facility and the other for on-site staff - with solar PV panels to offset the energy costs of operating the shelter. The community buildings and solar panels are designed to be portable so that they can be moved when the emergency shelter is either relocated, or is no longer needed.

#### Expansion of the State Energy Management Program to Municipalities

VLITE funding of \$300,000 is helping the Vermont Department of Buildings and General Services to expand its State Energy Management Program (SEMP) to Vermont towns through the funding of two staff positions. The goal of the SEMP expansion is to provide municipalities with energy and financing expertise so that they can retrofit community buildings and gathering places to be more energy efficient – less costly to operate, and more sustainable both financially and environmentally.

While this project stalled during the pandemic, it received a huge boost in 2022 when the General Assembly appropriated federal funds to be granted through BGS to towns with energy projects that have been vetted through a qualification process.

#### Randolph Area Community Development Corporation (RACDC) Design for DC-Based Microgrid

RACDC, an affordable housing and community development nonprofit, received a grant from VLITE for \$75,000 to complete a feasibility and engineering design to inform the building of the Salisbury Square affordable housing development with a direct current community microgrid. The development will have

single family and multifamily homes and will be capable of generating its own power while still being connected to the grid. The microgrid would be one of the first of its kind in a residential development with solar generation, electrified thermal sources, battery storage, and direct current appliances that use energy more efficiently. This is a project that could move the needle further and provide proof of concept. Residents of the microgrid will benefit from redundancy and resilience in the face of extreme weather events and power outages.

Salisbury Square, the site of the proposed microgrid community, is the redevelopment of a former blighted abandoned factory complex and is in walking distance of downtown Randolph. Since the completion of the design, RACDC has continued to put together financing for the affordable housing project. They are targeting a spring 2023 start date for construction. The microgrid would be one of the first of its kind in a residential development with solar generation, electrified thermal sources, battery storage, and direct current appliances that use energy more efficiently.

This is a project that could move the needle further and provide proof of concept.

### East Calais General Store and Apartments Energy Overhaul



The East Calais Community Trust sought a \$30,000 grant from VLITE towards the complete renovation of the historic building in East Calais Village. Once completed, this project will be the first net zero energy general store in the country. The building also houses three affordable apartments which the nonprofit wanted to retain and improve, believing that the combination of store and housing anchors the village.

The VLITE grant will specifically cover the building envelope thermal insulation and joins 16 other grants that the nonprofit was able to assemble raising over \$2 million for this extensive project. Renovations have begun and the project is expected to be complete in June of 2023.

Once completed, this project will be the first net zero energy general store in the country.

#### Milk with Dignity – Dairy Farmworker Sustainable Housing



The Milk with Dignity Standards Council (MDSC) received an \$80,000 VLITE grant. MDSC is a nonprofit that ensures that dairy farms in its program fulfill standards for the rights of farmworkers to safe, healthy and dignified working and housing conditions. MDSC in partnership with Efficiency Vermont will use the VLITE award towards the purchase of four to six Zero Energy

Modular (ZEM) homes on dairy farms to house farmworkers. During the pandemic overcrowded farmworker housing led to a Covid outbreak. But farmworker housing has long been an issue for its crowded, makeshift and less than comfortable conditions. MDSC focuses its efforts on farms in the Northeast Kingdom, Franklin and Addison counties.

Farmworkers will benefit from healthier living conditions, and farm owners will benefit from increased energy efficiency and reduced maintenance costs and time.

It has been difficult to secure financing for farmers to buy these energy efficient homes and recent mortgage hikes made it even more unaffordable for them. But recently MDSC raised an additional \$150,000 in private donations and the Vermont Housing and Conservation Board has increased its max per unit contribution to \$120,000. Two farms in Franklin County have completed the permitting process and have detailed housing designs and budgets in place for 5- or 4-bedroom ZEM units.

### Grants to Municipal and Cooperative Electric Utilities

VLITE invited the cooperative and municipal electric utilities to apply for grants in order to support efforts to reduce greenhouse gas emissions through its energy transformation work. The utilities have a trusted, well-established relationship with their customers and are well-positioned to have a positive energy impact in those homes. Below are the projects being supported with VLITE funding.

- Vermont Electric Co-op was awarded \$100,000 to offer enhanced incentives to its low and moderate income customers. Around 55 households that have already weatherized will receive generous incentives towards thermal fuel switching including heat pumps and pellet stoves.
- **Stowe Electric Department (SED)** was awarded \$125,000. SED is rebuilding its Moscow Mill hydroelectric facility to 21st century standards. This project will further decarbonize Stowe's electricity generation and will provide around 45 income-qualifying customers with three years of on-bill credits
- Vermont Public Power Supply Authority (VPPSA) was awarded \$90,000. VPPSA supports 11 community-owned utilities. The grant funds are being used towards electrification incentive programs for residential EV charging, and a thermal fuel switching program. Another component of the grant supports VPPSA incentives in conjunction with the new Weatherization Repayment Assistance Program, a financing tool for the upfront costs of electrification and weatherization projects that are repaid on the participant's electric bill.
- Washington Electric Co-op received \$100,000 for a new ReWire program. In collaboration with Capstone Community Action, WEC low and moderate income households that have already undergone weatherization will be provided electrical service upgrades so that those homes can further electrify heating and transportation.
- **Burlington Electric Department** received \$74,550 to support the efforts of CarShare Vermont to provide accessible transportation for low income customers. Funds are being used to purchase two new all-electric vehicles for CarShare VT's fleet and to deploy three new charging stations in high traffic areas, including the Old North End Community Center.



Old Moscow Mill that will be renovated into a modern hydroelectric facility.

Low income customers of Stowe Electric wil receive bill credits once the plant is operational.

www.vlite.org Questions: email director@vlite.org