

Heating Efficiency Success Stories

Saving Money | Creating Jobs | Reducing Pollution



TABLE OF CONTENTS

Affordable Heat: Saving Money and Cutting Pollution Through Efficiency 1
Energy Efficiency: The Opportunity and the Benefit 2
Success Stories 3
Resources: Support for Making Efficiency Improvements16

ACKNOWLEDGEMENTS

Heating Efficiency Success Stories

Saving Money | Creating Jobs | Reducing Pollution

prepared by

the Vermont Natural Resources Council

with support from

The High Meadows Fund

The Block Foundation

Green Mountain Coffee Roasters

Many thanks to Efficiency Vermont, NeighborWorks of Western Vermont, Sustainable Energy Resource Group and the Central Vermont Community Action Council for sharing their success stories. Huge thanks also go to EVT’s Frances Huessy, VNRC/VECAN AmeriCorps Member Keil Corey, Diana Chace and Carol Holmquist for their help putting this publication together. And, of course, we appreciate the people and municipalities who made efficiency investments and shared their success stories.

VERMONT NATURAL RESOURCES COUNCIL

9 Bailey Avenue
Montpelier, VT 05602
tel: 802 223-2328
fax: 802 223-0287
email: info@vnrc.org
Web site: vnrc.org

April 2014

©Vermont Natural Resources Council

Affordable Heat: Saving Money and Cutting Pollution Through Efficiency

More and more Vermonters are reducing their energy bills — including high home heating costs — by investing in efficiency improvements. This publication highlights some of the people who are reaping many benefits from those investments.

Jim Wuertele of St. Johnsbury reduced his annual heating bill by over two-thirds. Joan Jackson no longer has to wear extra layers of clothing to stay warm inside her retrofitted Wallingford home. The Aronson family reduced their air leakage by 80%, fixing significant moisture and mold problems in their Woodbury home. And a retrofit of the South Hero Town Office was so successful that it reduced the office's fuel bill by half and cut its carbon footprint by over 25,000 pounds of CO₂.

People who make efficiency improvements are also helping to meet the state's goal of weatherizing 80,000 homes by 2020. In 2008, the Legislature established this target to help more Vermonters save money, reduce energy waste and tackle one of the state's biggest contributors to climate change — our leaky homes and buildings.

The fact is: The cost of heating Vermont's homes and buildings has risen dramatically in just over a decade. In 1999, a gallon of fuel oil was 99 cents. Today, it costs about 4 dollars a gallon. That is a 400% increase. And those costs will only continue to rise, as finite fossil fuels become more scarce and harder to extract.

As these success stories highlight, efficiency pays off, providing a powerful benefit for people's pocketbooks — and the planet.



Energy Efficiency: The Opportunity and the Benefit

Vermonters can save money, strengthen the economy, address the climate crisis and leave a positive legacy for future generations by reducing the energy needed to heat our leaky homes and businesses.

Retrofitting our buildings will keep them warmer in the summer and cooler in the winter. These thermal efficiency projects also provide the lowest cost and most effective strategy to reduce greenhouse emissions — all while creating jobs for Vermonters in the process.

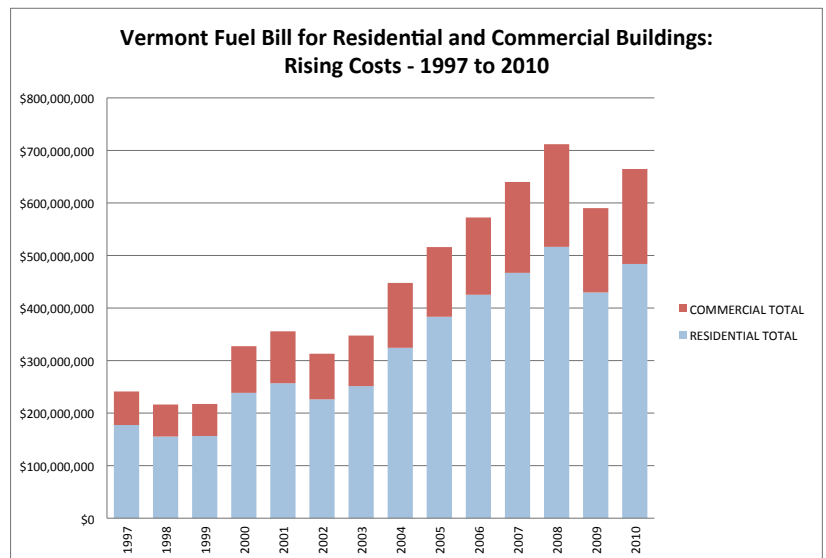
Vermonters saved \$775 million since 2000 by investing in electric efficiency, installing energy efficient appliances, switching to energy-saving technology and more. We can do the same for our heating needs, which now rely almost exclusively on expensive, dwindling and polluting fossil fuels. Heating weatherized buildings with renewable energy and evolving technologies, like cold climate heat pumps, can drastically reduce energy costs and make energy bills more constant over time.

“Vermonters spend hundreds of millions of dollars every single year by letting oil and fossil fuel driven heat leak out of our old buildings, forcing us to reach into our pockets to pay for oil at high prices, where, if we just used less, had more efficient buildings, we’d save those dollars.”

Vermont Governor Peter Shumlin — 2013

Vermont’s total fuel bill has more than doubled in 10 years. Efficiency investments can:

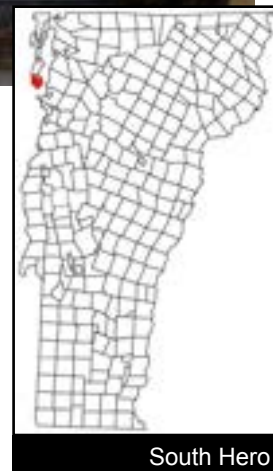
- Help Vermonters lower their energy bills. In Rutland, the heating efficiency efforts of Neighborworks of Western Vermont saved homeowners, on average, 386 gallons of fuel oil (or equivalent) — about \$1400 a year!
- Create local jobs. Vermont currently exports almost \$1 billion out of our economy annually to pay for energy. A real commitment to heating efficiency as well as helping Vermonters switch to renewable heat will keep our dollars local and grow thousands of new jobs.
- Position Vermont as an energy efficiency and climate action leader. Wasted heat is one of the state’s biggest contributors to climate change. Comprehensive efficiency retrofits can provide significant carbon-reducing benefits and minimize costs, especially for Vermont’s most vulnerable residents.



South Hero Town Office: Municipal Weatherization Project

For many years, the town office building in South Hero had noticeable heating problems. The town clerk wore her jacket at work to stay warm in the winter months. The town knew what was needed, since a 1991 energy audit had provided a list of recommended improvements. It wasn't until funding became available through two separate grants that the office could proceed with the recommended upgrades.

The first part of the project involved a furnace replacement, new exterior doors, and more efficient lights. This resulted in a reduction of 589 gallons of oil used per year, and a 16% reduction in annual electricity use. The second part of the project began with recommendations from an updated audit, and involved air-sealing and insulating the building. Total projected fuel oil reductions are now 985 gallons per year, a 57% reduction over the original fuel oil consumption amounts. These improvements are expected to pay for the project in fewer than two years. This project also reduced the town office's annual carbon footprint by 25,300 pounds of CO₂, the equivalent benefit of planting 1,946 trees.

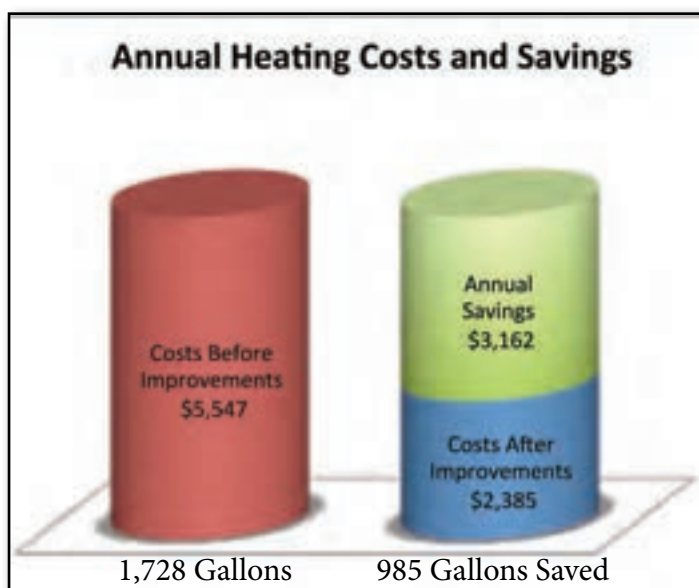


South Hero

“(This project) has saved the taxpayers money, improved the working conditions for the town clerk, reduced the town’s carbon impact, and shown homeowners and businesses they can save on energy costs.”

-Bob Buermann

Co-founder of Islanders Caring for the Environment (ICE)



Interesting Information and Tips

- Grant funding was essential to the success of this project.
- Regional planning commissions can be excellent sources of funding and guidance in exploring opportunities for financing.

The Mellinger Home: Residential Weatherization Project



Delaying a comprehensive solution to problems you can't see in your home can cause damage to the building, your wallet, and your comfort. Such was the thinking at the Mellinger household. Their 20-year-old cape was not racking up dramatically high energy bills, nor was it noticeably uncomfortable. However, the ice dams and icicles that accumulated on their Essex home during the winter months caused the Mellingers to wonder about long-term damage to the roof. They suspected there was room for improvement.

The Mellingers hired a Home Performance with ENERGY STAR contractor to conduct an energy audit. Their suspicions were confirmed when infrared photos revealed a “glowing red ring” around the house, indicating pervasive heat seepage from the basement. After discussing the recommended efficiency improvements with the contractor, the Mellingers decided to: (1) air-seal throughout the home, including the basement; (2) blow in insulation—particularly in knee-wall and attic areas; and (3) replace the boiler. With these efficiency improvements, they have reduced air leakage by 40%—and have reported that they no longer have ice dams during the winter.



Essex

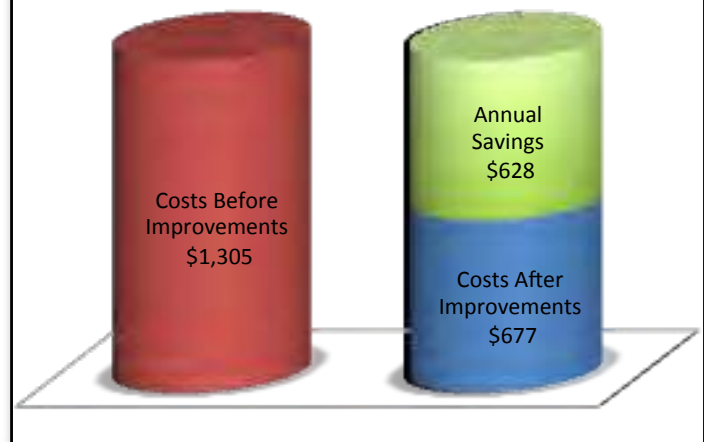
“We’re definitely glad we did it. Not a single ice dam this past winter!”

-Dan Mellinger

Interesting Information and Tips

- Consulting Efficiency Vermont about incentives is an appropriate first step, once a homeowner receives an energy audit.
- Consulting Vermont Gas, if the homeowner resides in that utility’s service territory, is a good way to find out about available tax credits.

Annual Heating Costs and Savings



The Severance Home: Residential Weatherization Project

Phyllis Severance's 3,100 sq ft home in Williston was built in 1840. Air leakage and insufficient insulation meant the house was losing heat, and therefore wasting money. In 2008, she hired Scott Gardner from Building Energy, a Home Performance with ENERGY STAR® participating contractor. He performed an energy audit of her house, and suggested several ways to make the home more energy efficient. They decided together on the three actions that provided the most economic return on investment.

Informed by a blower door test, the improvements were: (1) air-sealing throughout the house, (2) basement insulation, and (3) insulating the attic above a new addition. These changes resulted in a 37% reduction in air leakage and a 27% decrease in annual energy costs. The outcome: a warmer and more comfortable home, and a significant reduction in Phyllis' energy use.

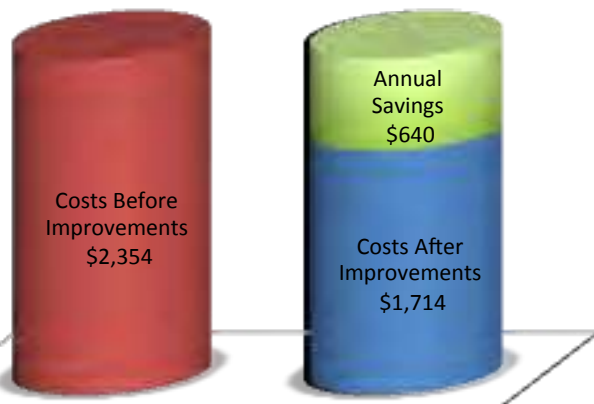


“The entire house is so much warmer in the winter. Savings on gas and electric were huge in the first year alone.”

-Phyllis Severance



Annual Heating Costs and Savings



Interesting Information and Tips

- Working with a Home Performance with ENERGY STAR certified contractor qualifies homeowners for ENERGY STAR incentives. The average incentive for homeowners in 2012 was \$2,000.

Craftsbury Academy: Municipal Weatherization Project



Craftsbury

Craftsbury's education tax has gone down—even though we have invested \$5.5 million to transform our historic but dilapidated buildings into beautiful high-performance facilities. We are enjoying the benefits of utility savings: 36% of our total buildings and grounds budget, with the side effects of improved comfort and morale among faculty, staff, and students, along with an increase in tuition students.

-Dylan Laflam, Director of Buildings and Grounds at Craftsbury Town School District

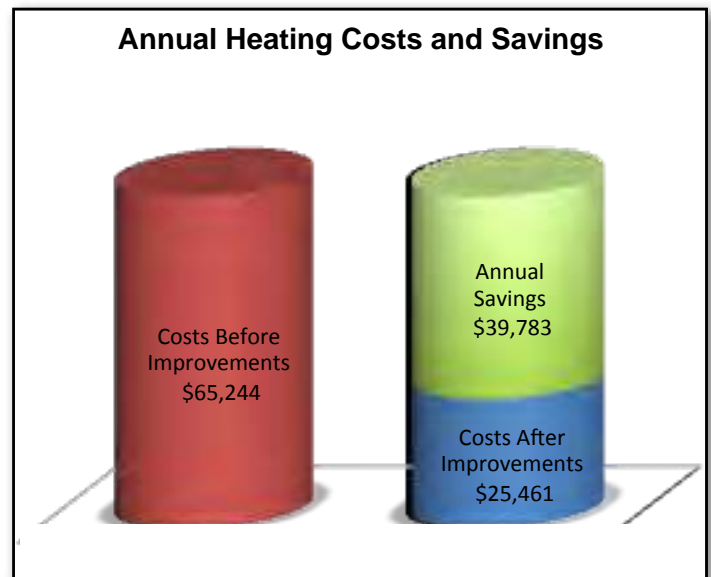
In 2011, the Craftsbury Town School District completed a comprehensive renovation of the 1863 Craftsbury Academy High School. The project's purpose was to address safety and energy efficiency concerns. The building's older construction offered significant potential to improve its energy efficiency, comfort, and safety.

The first step was to replace the building's inefficient oil heat system with a new, efficient wood pellet system. The building was then completely weatherized, and lighting was changed to CFLs. These improvements reduced annual heating costs by 64%, and have saved the school \$16,000 in annual electricity costs. Overall comfort in the school rose dramatically as well, eliminating the need for faculty to bring in space heaters to keep warm in their classrooms—a violation of school policy!

Students and faculty now enjoy a more healthful, safer, and more comfortable learning environment; local jobs have been created; the school has seen dramatic energy and money savings; and Craftsbury Academy won a 2012 Efficiency Vermont Better Buildings by Design Award for Commercial Major Renovation.

Interesting Information and Tips

- The Craftsbury Town School District used required safety improvements as an opportunity to address their significant energy issues with the school building.
- Retrofits of public resources like schools require champions in the school—and in the community—to make them possible.



The Wuertele Home: Residential Weatherization Project

Jim Wuertele's 1855 wood frame home in St. Johnsbury needed some serious attention when he purchased it in 2003. In winter, the walls, windows, floors, and cabinets were all cold to the touch. "Our dishes were very cold when we opened the cabinets," he said.

Jim hired a certified energy contractor to perform an energy audit, and help him create a prioritized list of improvements he could undertake. He took that list and consulted an architect. This step was not mandatory, but with a second opinion, he developed greater confidence that new wall insulation layers would not trap humidity. Armed with a better technical understanding of the changes, Jim began to tackle the problems.

Over the years, and in the following order, Jim contracted for the following improvements: installing digital thermostats; putting in new cellar windows and insulating cellar walls and attic with foam insulation; filling in holes and cracks in the cellar floor with special waterproof coating; replacing pink wall insulation with cellulose and then sealing the wood sheathing before adding foam board, and, at the same time, new triple-paned windows and insulated doors were sealed into the walls. These measures have effectively sealed the home. Jim also installed a new boiler with outside temperature response, variable flow circulators, and a combustion air path to reduce house vacuum.

Jim's experience demonstrates the whole-home benefit of energy efficiency improvements. He enjoys improved safety through the fire-retardant insulation, and he is pleased with the insulation's muffling effect, quieting the living space. He has also experienced a dramatically cooler house in the summer. Even the small things matter: His windowsills are now over 11 inches deep, increasing shelf space for candles or plants. Unexpectedly, his clean and dry cellar improves storage for media, documents, garden supplies, wood, and tools.

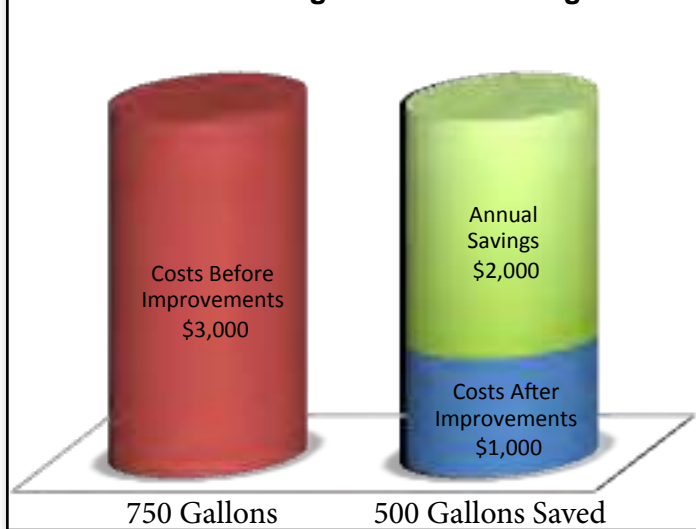
"It's comfortable everywhere in the house. We're easily able to keep the temperature constant and the heating system hardly has to work at all."

-Jim Wuertele



St. Johnsbury

Annual Heating Costs and Savings



Interesting Information and Tips

- Working with a contractor not only to perform the audit but to create a "shopping list" of work can help prioritize what needs to be done. This step is important for addressing issues such as air quality, which might not be obvious.
- Having confidence in the plan of action—and in the work that lies ahead—is essential. Taking additional preparatory steps, such as working with an architect or other design professional, can help clarify priorities, timing, and other important issues.
- In 2008 and 2009, the homeowner received \$1,500 in federal tax credits, resulting in a \$3,000 total benefit. He also received \$2,756 in federal and state tax credits for a solar hot water installation.

The Jones Home: Residential Weatherization Project



When Dan Jones moved into his 1870s Montpelier farmhouse, he was confronted with a drafty home that leaked heated air. Through his work with the Montpelier Energy Advisory Committee, he was familiar with benefits associated with weatherization renovations, but needed guidance about the process. He called a contractor certified by the Building Performance Institute, EnergySmart of Vermont, for an audit.

Working with his contractor, Dan decided to upgrade his leaky home by installing foam insulation in the basement and cellulose in the roof. Concurrently, he took advantage of an offer from a solar hot water dealer to Montpelier residents, further reducing his electricity needs.

Today, his home is much more comfortable than before, and

he's thrilled that "the savings started immediately." While he realizes there are always more opportunities to save, he knows it was a great investment. As a result of the weatherization work, Dan believes he will be more financially stable in the coming years and feels good about living more comfortably.



Montpelier

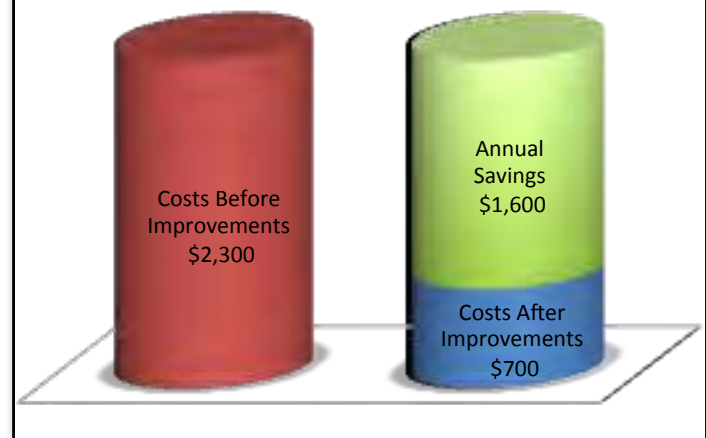
The change was dramatic. We are a lot more comfortable. Between the savings and the rebate, I will break even on my loan for the weatherization in 5 years. After that, I will be saving \$2,200 every year, or more, depending on what oil prices do.

-Dan Jones

Interesting Information and Tips

- Find a list of Building Performance Institute-certified contractors via the Efficiency Vermont web site. The contractors and Efficiency Vermont will help explain and secure incentives for projects.
- Get the most out of your audit by having it done while it's cold outside. It will provide better information about how your home might be losing heat.

Annual Heating Costs and Savings



The Toth Home: Residential Weatherization Project

With a drafty 1840s cape style house, the Toths knew they had plenty of opportunities for energy and cost savings and increased comfort in their home. The Post Mills couple hired a Home Performance with ENERGY STAR Participating Contractor, whom they found through the Efficiency Vermont website, to conduct a comprehensive energy audit and provide a list of the necessary steps for improving the energy performance of their home. They found that a significant amount of their heat was escaping from the roof, so the Toths air-sealed and insulated the attic, reducing the home's air leakage by 22%. This combination of energy efficiency measures helped reduce the winter drafts in their home. It also increased the homeowners' comfort in the winter.

Before they moved forward on their project, the Toths sought incentives from Efficiency Vermont and others sources, receiving a total of \$1,779. They also used a line of credit with an interest rate of 6% from the Wells River Savings Bank to pay for the project. Using these financing options, they were able save money, reduce their energy use, and improve the comfort in their home.

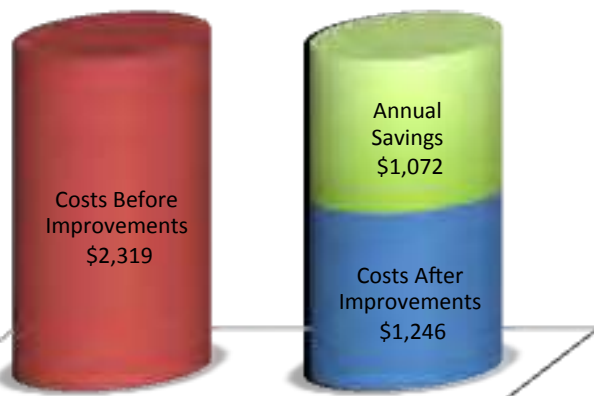
We were thrilled with the Home Performance insulation and air-sealing work. The program was easy and worthwhile...With oil prices so high, and our cash rebate from Efficiency Vermont, the return on our project investment will be just three winters.”

-Brent Toth



Post Mills

Annual Heating Costs and Savings



Interesting Information and Tips

- Contact Efficiency Vermont to find out about what incentives are available, and talk to your local bank about financing options. Your goal is to obtain affordable energy improvements.
- Efficiency Vermont recommends a loan that “combines easy qualification, an attractive fixed interest rate, and a relatively long repayment term. Fixed monthly payment plans that can be offset by energy savings pay for themselves. The money that would have been spent on energy bills becomes available to make most or all of the loan payments.”

The Biddle Home : Do-It-Yourself (DIY) Weatherization Project



Rick and Jody Biddle of Thetford Center weren't happy with their high energy costs. They were also concerned about the huge ice dams on their roof, and significant condensation around their windows in the winter. Rick is a skilled carpenter and decided to enlist the help of Efficiency Vermont's DIY Home Performance with ENERGY STAR Program. He hired a Home Performance with ENERGY STAR Participating Contractor to perform an energy audit and to provide him with a list of improvements and guidance for doing the work.

Rick insulated the attic with spray foam and cellulose; air-sealed the attic hatch and recessed lights, and added foam board insulation to the basement walls. He also added a high-efficiency boiler and a woodstove, and replaced some leaky windows and doors. The Home Performance with ENERGY STAR contractor tested the house afterward and found that Rick had reduced his home's air leakage by 50%.



Thetford Center

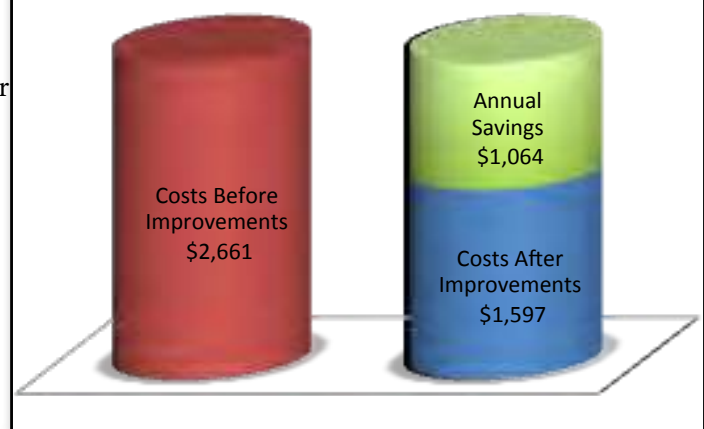
“The initial energy audit was extremely helpful in getting me going in the right direction. By all means, go for it—enroll in this program.”

-Rick Biddle

Interesting Information and Tips

- Efficiency Vermont's DIY program can help save money on the labor costs of home improvements—if you're willing to do the work.
- If you or someone you know is handy, a DIY weatherization project can save a homeowner a significant amount of money, compared to paying a Participating Contractor to undertake and complete all the work. However, homeowners should be aware that a DIY project typically requires more time to complete, because of the hours involved in a project like this.

Annual Heating Costs and Savings



The Clark Home : Do-It-Yourself (DIY) Weatherization Project

Caleb and Laura Clark of Brattleboro found their perfect home right in town, allowing them to be closer to their jobs and their community—and to reduce their carbon footprint with the shorter commuting distance. It didn't take long, however, to discover one problem with their home: While standing in the basement, Caleb could put his hand up and into the walls of the home and feel the warm air rushing up into the attic.

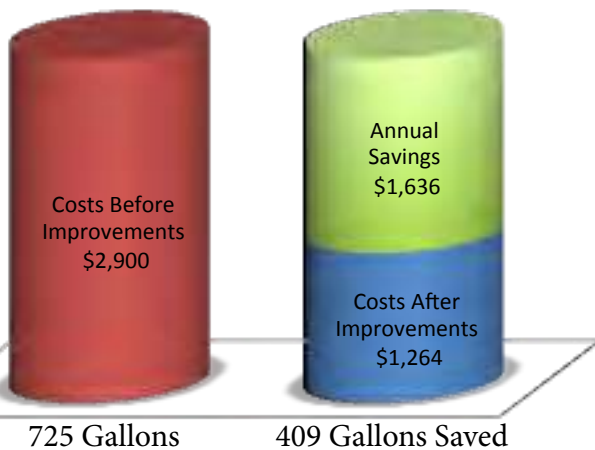
Because they had “visions of dollars escaping into the wild,” they hired a BPI-certified contractor to conduct an energy audit of their home. They prioritized the list of recommended actions, and chose to insulate their walls, attic, and basement. They also air-sealed the entire house. The local contractor filled their walls with three inches of rigid foam and blew in cellulose, while also adding foam insulation to the basement. Caleb and Laura finished the task, adding 18 inches of cellulose in their attic.

Caleb and Laura performed some of the work themselves, in consultation with the certified contractor. By signing off on their work, the contractor enabled them to take advantage of an Efficiency Vermont rebate of about \$2,500, reducing the total cost of the project to \$4,500 - a 36 percent savings on their initial investment. With their own sweat equity and the rebate, the project was more affordable than it otherwise would have been. They now live in a more comfortable, sustainable, and affordable home. Previously, when the furnace would turn on, Caleb and Laura would worry they were heating the outdoors. Now, Caleb and Laura are happy that the family is saving money.



Brattleboro

Annual Heating Costs and Savings



The economics made sense to me. It's a solid investment, more comfortable, and the knowledge that the furnace isn't belching as much carbon into the air is great.

-Caleb Clark

Interesting Information and Tips

- You can save a significant amount of money if you have the capability, the tools, and the patience to do it yourself.
- Use Efficiency Vermont's list of BPI-certified contractors to locate one who will work with DIYers. You can't receive the Efficiency Vermont rebate without that partnership. Caleb received \$2,500 in rebates on his \$7,000 project.

The Hand Home: Residential Weatherization Project



James Hand was comfortable in his 1940s home in Manchester, but he was becoming increasingly concerned about his growing heating bill. Using more than 1,100 gallons of oil each year, he did the arithmetic and estimated that his monthly heating bill would eventually surpass his monthly mortgage payment.

That is why in 2009, James hired a participating Home Performance with ENERGY STAR® contractor through Efficiency Vermont. The contractor performed a comprehensive energy audit on his home and, shortly thereafter, undertook the recommended improvements.

The improvements were: (1) adding foam insulation to box sills and the full length of basement walls; (2) applying 20 inches of cellulose insulation throughout the entire attic; and (3) air-sealing throughout the home, tested with a blower door. These improvements reduced the air leakage in his home by 38% and dramatically reduced his heating bill.



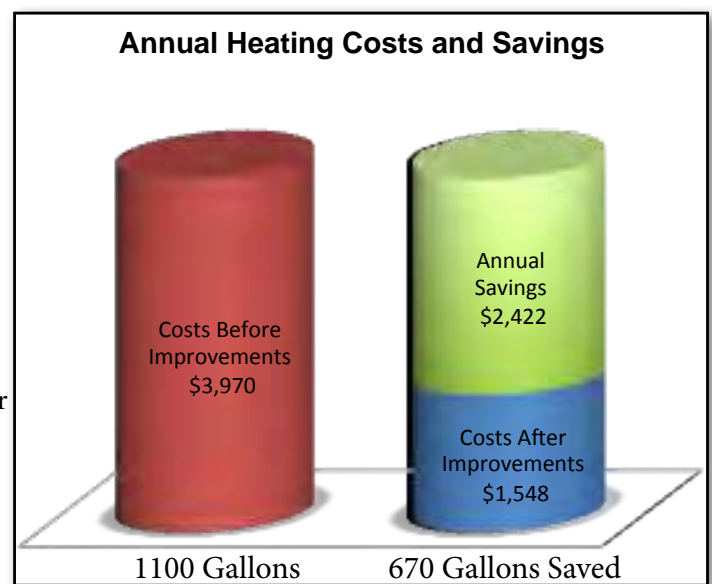
Manchester

Why anybody wouldn't do this is beyond me. Just look at the numbers. It works.

-James Hand

Interesting Information and Tips

- Do the arithmetic and plan for the long term. James estimated what his fuel bills would likely be and compared those costs with the benefits of weatherizing his home. The numbers worked.
- If you can't afford all of the improvements at once, consult with your certified HPwES contractor to obtain advice on making the most strategic, cost-effective improvements first.



The Jackson Home: Residential Weatherization Project

Joan Jackson, a retired librarian, was fed up with being uncomfortable in her Wallingford home during the winter months. She needed to bundle up with an extra sweater to stay warm, and was becoming increasingly concerned with rising heating fuel prices. Another problem: ice dams that had repeatedly caused water damage.

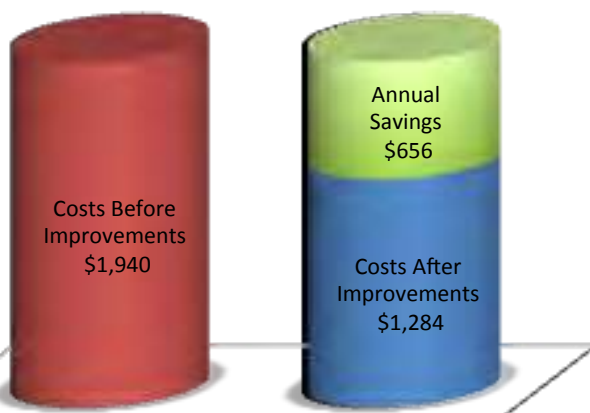
Joan called the NeighborWorks H.E.A.T. Squad to help her tighten up her home and address all of her heating issues. With some guidance, she hired a certified contractor to evaluate her home's needs and to make the necessary improvements. The contractor made the following improvements: (1) sprayed foam insulation into her basement; (2) added dense-pack blown-in insulation in the upstairs walls; and (3) air-sealed around her doors, windows, and the attic hatch. The result? Joan no longer needs that extra sweater in the winter. She also no longer has ice dams on her roof, and she continues to save money on her energy bills. An extra bonus: Her house stays cooler in the summer.



Wallingford

I enjoyed having (the contractors) here!
-Joan Jackson

Annual Heating Costs and Savings



Interesting Information and Tips

- Joan hired a certified contractor she trusted and whom she enjoyed working with. The comprehensive audit assessed the biggest problems and identified the best ways to address her specific home performance issues.

The Sancic Home: Residential Weatherization Project



Adam and Dalite Sancic were concerned that their Proctor house seemed not to be retaining any heat. They wanted to make it warmer and more comfortable, especially because they have a young son. They bought a pellet stove, but discovered that it didn't make much of a difference. The family decided to participate in NeighborWorks' H.E.A.T. Squad program serving the Rutland area (as well as Bennington, Addison, Windham, and Windsor counties) hoping they would see an improvement in the obvious heat loss in their home.

After receiving an energy audit, the Sancic family decided to make the following improvements: (1) adding spray foam and rigid board insulation in the basement; (2) adding blown-in insulation in their ceiling and walls; and (3) air-sealing the home. Now that the project is completed they fill their oil tank once or twice a year instead of three or four times, and their household pellet use has been reduced by a ton.



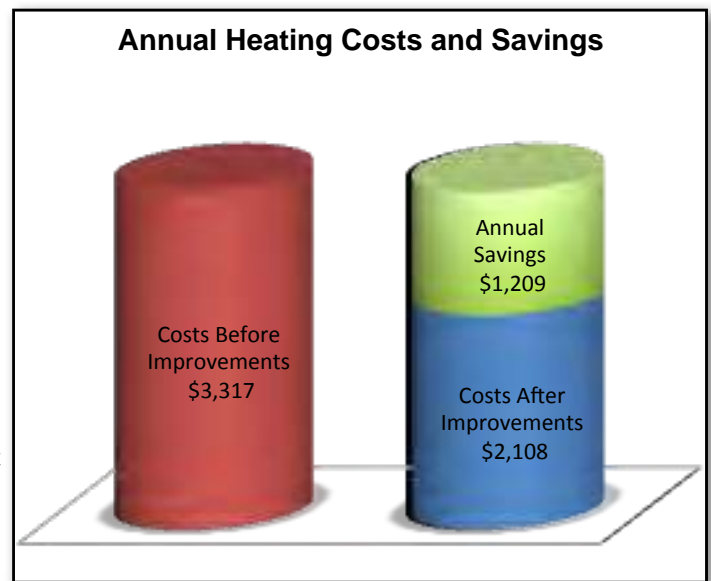
Proctor

We went from filling our oil tank three or four times a year to one or two times a year, and reduced pellets by a ton. It's a long-term investment that's returning in the short term. It's a no-brainer if you want to cut your fuel bills—especially in these older houses.

-Adam Sancic

Interesting Information and Tips

- Seeking out local support, expertise, and incentives, like those available through the NeighborWorks H.E.A.T. Squad program, can help customers make the step to undertaking a home energy improvement project.
- Even though this is a long-term investment, there are also very real short-term benefits, such as the immediate reduction in oil and pellet use, and increased comfort.



The Aronson Home: Residential Weatherization Project

Doug and Sandra Aronson are retired, and live on a fixed income. With fuel prices more than doubling over the last decade, their fuel bill had become so expensive that they were considering selling their small farmhouse in Woodbury, where they had been living for more than 20 years. They were using 1,703 gallons of propane each year for heat, and boosted their space heating with an electric fireplace. The home was extremely drafty, and moisture and mold were perennial problems.



“(The contractors) were polite, sincere, and reasonably quiet. It worked out great – what a big difference!”

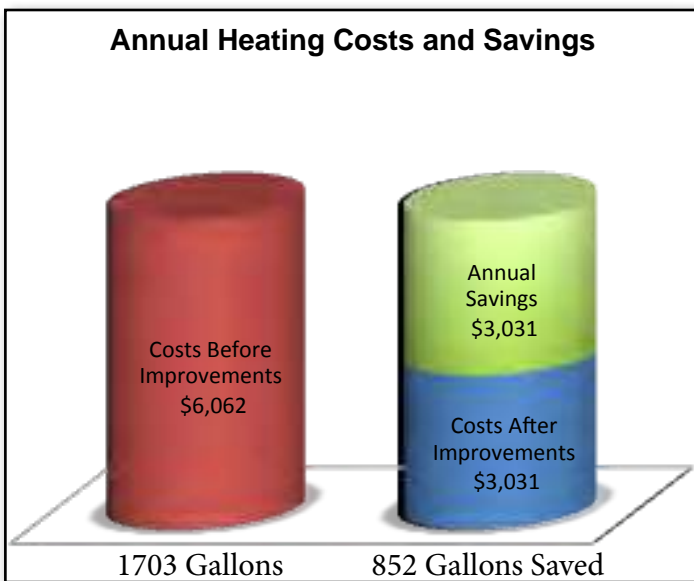
-Sandra Aronson

They learned that the Central Vermont Community Action Council (CVCAC) offered free Weatherization Assistance to income-eligible Vermonters. They applied for services, were verified as eligible, and proceeded with an energy audit. They undertook the recommended work that involved air sealing and insulating two long, cold, and damp kneewall closets that had been a source of problems. They also tightened up the windows and doors throughout the house, and insulated the attic. The basement was particularly challenging, since the foundation actually allowed water to fill their dirt-floor space. They sealed cracks in the basement, insulated the sills, and covered the entire floor with a moisture barrier. Other strategic improvements were the installation of a bathroom fan, a solar air collector for supplemental heating, and the addition of two smoke alarms. They also repaired the clothes dryer duct and vented it to the outside.



Woodbury

This work reduced their air leakage by over 80%, and dramatically reduced the home’s relative humidity. With the reduced moisture and mold problems, and general improvements, their home is now far warmer, and they expect to save approximately 50% on their heating fuel bill.



Interesting Information and Tips

- Contact your local Community Action Agency for information and guidance on home energy efficiency options available to income-eligible residents. These improvements are typically fully funded through the state Weatherization Assistance Program.
- Community Action’s Weatherization teams are energy experts who can guide you through this process — and a project — that saves you energy and money as well as improves the health, safety, and comfort of your home.

Resources: Support for Making Efficiency Improvements

Community Action Agencies (CAP agencies) help people achieve economic sufficiency with dignity through individual and family development. One of the many programs and services these agencies offer is a Weatherization Assistance Program for income eligible Vermonters. CAP agencies also administer the federal Weatherization Assistance Program to assist income-eligible Vermonters invest in home efficiency (<http://www.waptac.org/>). Vermont's CAP agencies include:

- BROC – Community Action in Southwestern Vermont (<http://www.broc.org/>)
- Central Vermont Community Action Council (<http://www.cvcac.org/>)
- Champlain Valley Office of Economic Opportunity (<http://www.cvoeo.org/>)
- Northeast Kingdom Community Action (<http://www.cvoeo.org/>)
- Southeastern Vermont Community Action (<http://www.sevca.org/>)

The **Database of State Incentives of Renewables & Efficiency DSIRE** is a U.S. Department of Energy online database that can be used to search for state incentives for renewable or efficiency projects in every sector of the market.

<http://www.dsireusa.org/>

Efficiency Vermont has a list of Building Performance Institute certified contractors, retailers, financing and incentive options, tools and information, and technical expertise on efficiency. www.encyvermont.com

ENERGY STAR is a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy designed to help citizens save money and protect the environment through energy efficient products and practices.

<http://www.energystar.gov/>

The **High Meadows Fund** has a list of learning resources that includes research on thermal energy efficiency in Vermont and guidance documents on how to achieve state goals of weatherizing 80,000 homes by 2020. www.highmeadowsfund.org

The **Low Income Home Energy Assistance Program (LIHEAP)** is a federally funded program that helps low-income households pay their home heating and cooling bills. http://dcf.vermont.gov/esd/fuel_assistance

NeighborWorks H.E.A.T Squad works with Rutland, Windham and Windsor County residents to improve the energy efficiency of their homes. <http://www.heatsquad.org>

The **Vermont Energy & Climate Action Network (VECAN)** works to start and strengthen town energy committees as a strong, people-powered response to advancing energy efficiency and renewable energy solutions. www.vecan.net

The **Vermont Energy Education Program (VEEP)** works in schools and beyond to promote energy literacy: a deep understanding of what energy is and how to use it efficiently, to enable energy usage choices that will result in a sustainable and vital economy and a healthy environment.

<http://www.veep.org>

The **Vermont Public Service Department** is the state agency that is charged with, among other things, representing the public interest in energy and energy efficiency issues. <http://publicservice.vermont.gov/>

The **Vermont Weatherization Program** is designed to help low income residents — particularly older Vermonters, people with disabilities, and families with children — to save fuel and money by improving the energy efficiency of their homes.

<http://dcf.vermont.gov/oeo/weatherization>





Vermont Natural Resources Council
9 Bailey Avenue, Montpelier, VT 05602
802-223-2328
vnrc.org



Vermont Energy and Climate Action Network
9 Bailey Avenue, Montpelier, VT 05602
802-223-2328 ext. 112
www.vecan.net