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

—Phyllis Severance

The Phyllis Severance Home: An Energy Investment

Phyllis Severance's 1840 Williston home was wasting money and losing energy by the minute. She was paying for heat that was leaking right out the roof, due to poor insulation and a lack of air sealing.

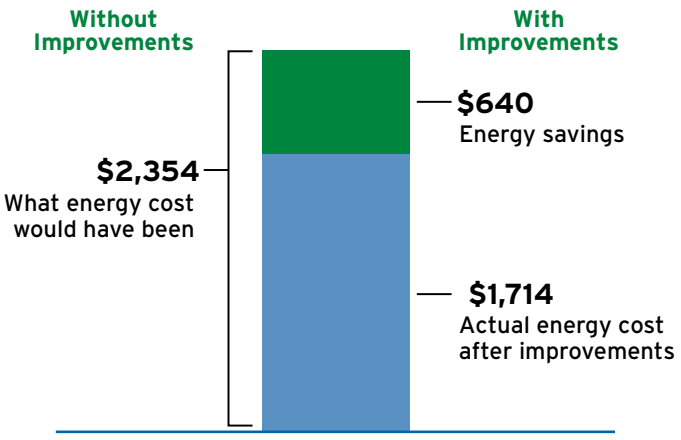
In November of 2008, Severance contacted Scott Gardner, of Building Energy, a participating Home Performance with ENERGY STAR® contractor, and had an energy audit performed on her home. Gardner presented Severance a list of ways to improve the energy efficiency of her home, an energy savings estimate and Efficiency Vermont incentive information. Together, they decided which areas to focus on for maximum benefit, including return on her investment.

The total project cost for this 3,100 sq. ft. home was $5,932. The selected improvements were:

- Air-sealing and insulating the basement;
- Re-insulating the attic above a recent addition;
- Blower-door directed air-sealing throughout the house.

Once the improvements were complete, diagnostic tests showed a 37% reduction in air leakage—falling neatly within Gardner's projected range. Severance immediately felt more comfortable around her home, and soon after noticed significant changes in her energy bills.

A Summary of Annual Heating Energy Savings and Cost



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Paying for Energy Efficiency Home Improvements

The least expensive way to pay for energy improvements is with cash. Given the typical size of these projects, however, few homeowners have this option available. For Vermonters who are interested in making significant energy efficiency home improvements, appropriate financing can make the investment not only possible, but affordable.

Energy savings can offset fixed monthly loan payments, and the money that would have been spent on energy bills becomes available to make most or all of the loan payments. Although the total cost of a longer loan is higher, increasing the number of payments can reduce the monthly cost and more closely match energy savings.

Phyllis Severance's Project Summary

Total Project Cost	($5,932)
Efficiency Vermont Incentive	$680
Total Customer Cost	($5,252)
Energy Savings	$640/yr.*

	PERSONAL SAVINGS	
Personal Savings Used	$5,252	Instead of earning $52 in interest by keeping the money in her savings account, Severance would save $640 on her energy bills, coming out $588 ahead the first year, and every year after that.
Annual Interest Rate	1.00%	
Annual Interest	$52	
Annual Cash Flow	$588	

	FINANCING SCENARIOS		
	7 yr. Personal Loan	15 yr. Home Equity Loan	30 yr. Mortgage
Total Amount Borrowed	($5,252)	($5,252)	($5,252)
Annual Interest Rate	7.50%	5.25%	4.75%
Monthly payments	($81)	($42)	($27)
Total Interest	($1,515)	($2,347)	($4,611)
Total Cost	($6,766)	($7,599)	($9,862)
Total Energy Savings During Repayment Period	$4,480	$9,600	$19,200
Cash Flow**			
Monthly	($27)	$11	$26
Annual	($327)	$133	$311
Total Cash Flow During Repayment Period	($2,287)	$2,001	$9,338
	If Severance decided to use a personal loan, she would need $2,287 over the term of the loan, in addition to the money from energy savings. Severance would continue to save $640* a year after the loan payments were complete.	If Severance decided to use a home equity loan or mortgage, she could use the money that would otherwise have been spent on energy bills to make her loan payments, and still have money left over. Severance would continue to save $640* a year after the loan payments were complete.	

*Assumptions: Energy prices do not change during the life of the loan. All loans are fixed rate. Energy Savings are calculated based on Normal Season Heating Degree Days.

**Cash Flow equals Total Energy Savings during repayment period minus Total Cost.