

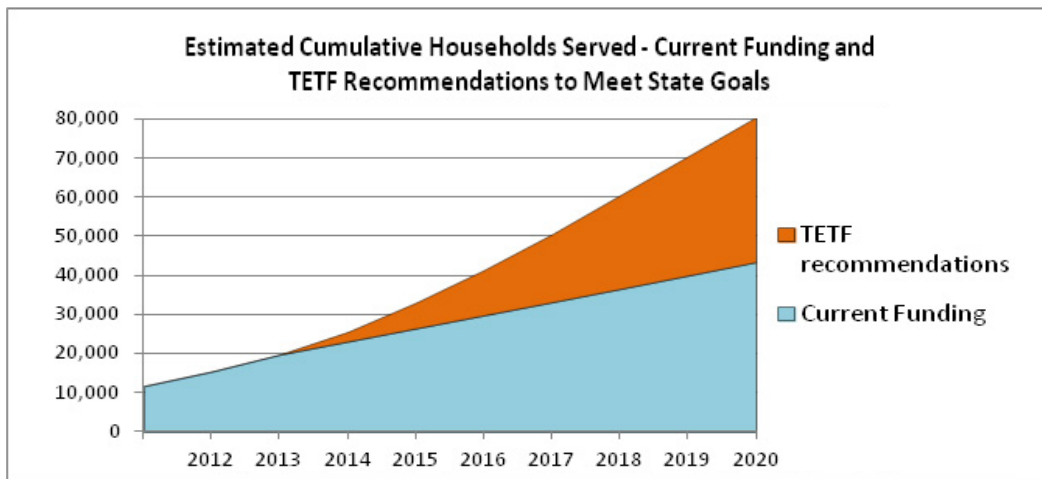
Thermal Efficiency Task Force Report

A Roadmap to Meeting Vermont's Building Efficiency Goals

Vermonters have a significant opportunity to save on their heating costs by weatherizing their homes and businesses. In 2010, Vermonters paid over \$600 million to import fossil based heating fuels; most of this money leaves the Vermont economy. Despite the fact that the average Vermont home today uses about half as much heating oil as compared to the early 1970's, Vermonters' 2010 fuel bill was nearly twice as much as it was a decade earlier, and prices are expected to continue to rise. These price increases will affect both homes and businesses. Comprehensive and rapid weatherization of Vermont's buildings will bring two significant benefits to homes and businesses: (1) Vermonters will be less vulnerable to volatility in the fuel market and to effects from dramatic weather fluctuations, and (2) more money will stay within the Vermont economy. At current fuel prices, thermal efficiency investments in a home can bring average savings of approximately **\$1,000 per year** over the lifetime of the investment. The value of these savings increases as fuel prices rise.

State Building Efficiency Goals

In recognition of these opportunities, the General Assembly set comprehensive building efficiency goals in 10 V.S.A. §581, including the goal to improve the energy efficiency of 80,000 homes, about one quarter of the state's housing units, by the year 2020. At the current pace, we are going to miss that goal by about half.



The Thermal Efficiency Task Force

In light of this situation, Vermont's 2011 Comprehensive Energy Plan called for the creation of a Thermal Efficiency Task Force. This Task Force, comprised of a wide range of diverse stakeholders, was convened by the Public Service Department throughout 2012 to chart a course for how Vermont can meet these goals.

Vermont has been a nationally recognized leader in the implementation of electric and natural gas energy efficiency programs. The Task Force report relies on the experience gained from those efforts, along with that of fuel dealers and other industry efforts, to recommend a series of programmatic, policy, and legislative recommendations.



James Hand's 1940s house was using more than 1,100 gallons of oil each year.

He did the math and realized that if something didn't change, with the rising price of fuel, his monthly heating bill would eventually surpass his monthly mortgage payment.

In 2009, Mr. Hand completed a comprehensive thermal efficiency retrofit, including air sealing and insulation measures. The measures resulted in a 38% reduction in air leakage, and over \$2,400 per year of savings.

Hand was so pleased with the results, he has since added insulation to nearly all of his exterior walls and now uses less than 350 gallons of fuel per year (a 68% reduction). Says Hand, "The house feels the same, but for a fraction of the cost. Just look at the numbers. It works."



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Benefits

The report also includes a detailed analysis of benefits that would accrue to Vermont businesses and families, and the state as a whole, if the new investment recommended in the report was completed, including **\$1.4 billion in total benefits**. Each new public dollar invested would secure \$6.18 in direct fuel price benefits over the life of the measures installed. Overall, Gross State Product, including indirect and other interactive effects of the recommended new spending and savings on the total economy, increases \$1.47 for every \$1 invested.

In addition to the monetized benefits described previously, investments in thermal efficiency will increase the comfort, health, and safety of Vermont families and businesses, and save over 6.8 million tons of carbon dioxide equivalent emissions from entering the atmosphere, which is equivalent to the annual CO₂ emissions of 1.7 coal fired power plants, or removing 1.26 million passenger vehicles from the roads for one year.

Recommendations

To achieve these benefits, key recommendations of the Task Force include:

- **Make it simple.** Coordinate existing programs and implement a statewide “clearinghouse” to facilitate easy access to information.
- **Ensure affordability.** Ease the energy burden for Vermonters and maintain robust investment in low-income programs to assist the most vulnerable.
- **Leverage private capital.** Increase the use of financing to offset upfront costs.
- **Build the industry.** Develop industry partnerships to build the trained workforce needed to scale up efficiency work.

The Task Force recommendations are intended to overcome specific challenges with regard to funding since the state has little dedicated funding for heating efficiency, and available resources are shrinking. For example, Federal funding for low-income Weatherization Assistance was completely eliminated last year; its return is uncertain at best. The report addresses these challenges by making recommendations for the public funding necessary to seize the state’s abundant thermal efficiency opportunities. Annual new public program

funding needed to meet the state building efficiency goals would range from \$27 million in 2014 to \$39.6 million in 2020. These public resources are expected to leverage twice as much private investment.

The report discusses potential funding mechanisms to raise the public funds needed to support Vermont’s state goals, including fuel taxes, energy efficiency tax credits, removal of the heating fuel sales tax exemption and other options. Mechanisms were assessed and ranked based on a set of funding principles, which included: sustainability, equity, transparency, low-income protection, and price signals. The report did not recommend a single option and instead provides a menu of options.

Implementing the recommendations contained in the TETF report will help people save money, create jobs, increase the comfort of our buildings and reduce Vermont’s greenhouse gas emissions. Vermont’s electric energy efficiency programs have provided a powerful example of the savings possible from efficiency. The opportunity and need to address thermal energy consumption for Vermont families and businesses is clear; the TETF report provides a comprehensive roadmap to take action.



¹ Regulatory Assistance Project, *Affordable Heat: Whole-Building Efficiency Services for Vermont Families and Businesses*, 6/11.

² The Energy Information Administration’s most recent reference price forecast calls for a continued 1% real (after inflation is accounted for) increase in fossil fuel prices over the long term.

A copy of the full report is available at: <http://publicservice.vermont.gov>

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