

# Comprehensive Energy Upgrade in Montague, MA

## CASE STUDY

Mass Save rebates go toward an advanced home energy performance project.

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Motivated by the need to fix the cause of ice damming and leaks and by the desire for comprehensive energy improvements to my home,

I followed in the footsteps of a friend in Greenfield and a Montague neighbor – both energy committee members – hiring Cozy Home Performance, LLC (CHP), a building performance firm based in Easthampton, MA. I knew CHP would perform an in-depth home energy assessment and provide a deeper energy efficiency overhaul (energy retrofit) of my home beyond the limits of the standard Mass Save program. The energy committee members recommended Cozy Home for their extensive knowledge of building science, especially related to energy efficiency, their experience in applying these concepts to making energy improvements in historic homes in the area, and their attention to detail.



Health . Comfort . Savings



### HOME ENERGY IMPROVEMENTS

National Fiber cellulose insulation dense packed in an area of the roof that had not been insulated under the standard Mass Save program.

Cellulose insulation blown into exterior walls to improve on existing settled insulation. Complete exterior access was needed in some sections.

Closed-cell spray foam installed on basement walls, from the sill to the floor, to provide insulation and control moisture. At my request, Cozy Home used a water-blown spray foam with reduced global warming potential, instead of the more commonly applied foam product with chemical blowing agents.

Ceiling of the crawlspace improved with dense packed cellulose and polyisocyanurate rigid insulation.

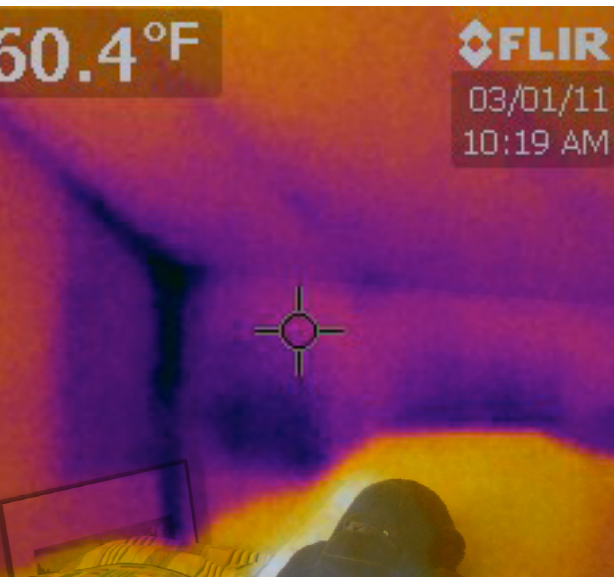


#### Sealed Air Leaks

Attic, basement, and exterior and interior walls air sealed to reduce air infiltration and exfiltration.

Heat distribution ducts sealed and duct insulation improved.

Drafty front door replaced with a high performance insulated door that better matches historic style of the house.



Infrared thermography is used to identify voids in wall insulation.

As a member of the Town of Montague's Energy Committee and a career environmentalist, I envisioned transforming my drafty, historic New England house into a comfortable and energy efficient home.

Several years ago, I had a Mass Save home energy assessment and followed through with the recommended rebate-eligible weatherization measures. While my house was less drafty and took less fuel to heat, I understood from a growing knowledge of home weatherization techniques that there were plenty of opportunities for making my home even more comfortable and for reducing my energy costs even further.

*"They were professional, knowledgeable, careful, and patient with their work."*



Cozy Home viewed me as a collaborator, and their managers and crew were open to requests and negotiations throughout the project. They were professional, knowledgeable, careful, and patient with their work.

When a few problems occurred, which tend to come with the territory of renovating, they solved them quickly and fairly. Regarding environmental sensitivities, they worked to contain unavoidable dust kicked up during the process, ventilated work spaces, and cleaned each day, helping minimize the impact of the project on my dust allergies and asthma. They preserved most of my foundation plantings when improving the energy performance of outside walls. And at the end of the project, they reviewed the completed renovations and provided me with the necessary paperwork to apply for energy efficiency tax credits.



Water-blown, bio-based, closed-cell spray foam on basement walls improves indoor air quality by reducing dampness, while enhancing energy performance.

### THE RESULTS

Reducing overall building air leakage by 57%!

Cooling the second floor in the summer with a new attic fan.

Lowering dampness in the house with new moisture barriers in the basement.

Saving an anticipated 35%+ on heating costs and cutting electric bills, with less run time for energy-demanding dehumidifier in the basement.

Feeling warm and snug in my home in the winter, with far less warm air escaping through air leaks and with greatly enhanced insulation performance.

### PROJECT COSTS AND REBATES

\$2,587 Mass Save rebates for insulation and air sealing

\$20,178 Total energy improvement costs (after Mass Save rebates)

Financed with Mass Save HEAT loan at 0% for 7 years

\$500 maximum federal tax credit for qualifying energy efficiency products

### CONTACT INFO

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