

Minnesota Success Stories: *Weatherization Delivers Economic Boost*

Willmar and surrounding communities

Weatherization Improvements: Attic and sidewall insulation, air-sealing, weather stripping, equipment repairs, etc.

Weatherization Service Provider: Heartland Community Action Agency

Heartland contractors provide weatherization, see promise of expanding the home retrofit market

Mike Calvin and Todd Raap, co-owners of Maple Street Construction in Raymond, Minn., are grateful to serve as weatherization contractors for the Heartland Community Action Agency in central Minnesota.

They're grateful because weatherization has given them steady work in an otherwise volatile construction market. And they're hopeful that their enhanced weatherization skills will apply to a bullish retrofit market that extends well beyond the low-income households they're currently serving.

Calvin and Raap admit they were skeptics before partnering with Heartland in the summer of 2009. They feared that quality might be compromised. But nothing could be further from the truth, they agree.

"After meeting with the Heartland staff and receiving training and monitoring of our weatherization work, we could see that Heartland administers an excellent program of energy home improvements," said Calvin. "They demand quality."

Maple Street Construction is among hundreds of contractors nationwide who are refining their skills to deliver the energy-saving techniques of weatherization. In July 2009, the Heartland Agency in Willmar, Minn., asked Maple Street and several other contractors if they would work for the Weatherization Assistance Program. The state's 35-year-old program, which provides energy conservation improvements (insulation, air leak sealing, safety and efficiency testing, repairs or replacement of heating systems, etc.) to homes of low-income households, expanded significantly in 2009 when the state received \$203 million from the American Recovery and Reinvestment Act of 2009 (ARRA). The bulk of that stimulus money—\$132 million—was earmarked for the Weatherization Program. About 17,000 Minnesota homes are to benefit from weatherization by March 2012. The state's Division of Energy Resources facilitates the program and works closely with 32 local service providers to deliver energy-saving improvements.

'House as a system' approach

Calvin and Raap say that working as a Heartland weatherization crew has increased their knowledge of the "house as a system" approach to energy savings. "We have learned how to operate the different diagnostic tools such as the blower door, learned where the most common air infiltration areas are located in a home, and discovered the best methods for sealing air leaks while maintaining adequate ventilation."

What sold them most on weatherization, however, was when they weatherized their own homes. "Using the blower door diagnostic equipment and weatherization-specific techniques, we were able to drastically reduce the energy consumption in our own homes," said Raap. After solving bypass problems, adding 100 bags of



A crew member from Central Lakes Insulation preps a sidewall before blowing in insulation.

Central Lakes Insulation is among several contractors who are working for the Heartland Community Action Agency and meeting the increased demand for weatherization work.

insulation, and replacing a hot water heating system with a forced air system, Raap decreased energy use by over 50 percent and cut his heating costs by about \$2,000. By filling air leaks and adding 158 bags of cellulose, Calvin reduced his home's annual energy consumption by 33 percent and trimmed heating bills from \$2,700 to \$1,800.

Calvin and Raap, convinced of weatherization's benefits, feel they've discovered a new market niche: weatherizing homes for people of all income levels. "Our work with Heartland helped solidify our commitment to weatherization work," said Calvin. "We're confident that cost-effective weatherization is something that can be applied to a wide range of homes."

Maple Street Construction has displayed its blower door equipment at a home improvement show in Willmar and explained its use to potential customers. "We stress the long-term benefits of having a properly insulated home," said Raap.

Creating, sustaining jobs

Heartland's manager of weatherization, Jude Deming, said her other contractors also realize the potential for private-sector weatherization. Using the federal stimulus funds, Heartland tripled the number of homes it weatherized in fiscal year ending June 30, 2010. To meet that demand, Heartland increased its contractors from two to seven, and the auditing staff doubled from two to four people.

Central Lakes Insulation, another Heartland contractor, is also sold on weatherization. "Since working with Heartland, we have used the blower door equipment a lot more," said Corey Thorson, owner of Central Lakes Insulation, based in Willmar and Alexandria. "We have also used an infrared camera to measure the insulation levels of homes."

Since beginning weatherization work for Heartland in August 2009, Thorson said his company has kept a regular crew busy full-time for the entire year and added one full-time worker. "We feel fortunate," said Thorson. "The training we received

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from Heartland has been more on the technical side. We've done weatherization work before, but the blower door testing is pretty new to us. What we've learned has enhanced the way we go about doing homes for higher-end customers. We address the house as a whole system; we do testing and show customers what they need. Our customers are very happy when we show them the reduction numbers for air infiltration and energy consumption."

Saving energy, trimming heating bills

Indeed, Heartland clients are especially grateful when results are documented. Heartland's weatherized homes have achieved an average air infiltration reduction of 27 percent and average annual savings of \$1,067 in heating bills, Deming said.

Heartland auditors conduct home energy assessments to determine energy improvements needed and then issue work orders to contractors. After the work is performed, Heartland staffers inspect the work. Additionally, state weatherization monitors inspect about 10 percent of all jobs.

Monitors from the state's Weatherization Assistance Program work closely with Heartland to train and educate auditors and to ensure that contractors are trained in the latest weatherization techniques. Deming says the auditor training and auditor certification course has enhanced the credibility of the weatherization field.

The increased weatherization work and training has given construction workers—and the entire economy—a big boost. "It has helped keep us going," said Calvin. "Having worked with Heartland, we can see that the ARRA dollars are being spent wisely. And now we're in a better position to provide energy-saving home improvements to people of all income levels."

For more information...

To learn more about Minnesota's Weatherization Assistance Program and ARRA-funded projects, please visit www.energy.mn.gov.



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