



Building Up

A Message from ...

The home construction season is well underway in our region, and many residents are turning to contractors for advice on how to heat and cool their homes for energy efficiency, cost savings and comfort. This issue of *Building Up* focuses on air source heat pumps (ASHPs), which are gaining popularity in cold-climate applications.

Minnesota Power offers a variety of ASHP rebates and special offers. We also maintain a network of participating contractors who are trained in the technology, committed to quality assurance and dedicated to continuous improvement. Our goal is to help contractors deliver customer satisfaction while providing resources and incentives for homeowners to make energy-saving choices.

Thank you to all who participated in the 2013 Energy Design Conference & Expo. This year's event drew a large turnout and earned rave reviews for scope and content. The more you know about the latest energy-saving products, technologies and applications, the easier it is to build your business on energy efficiency.

... the  **power of one**
Energy Conservation Team

Air Source Heat Pumps

Save Energy and Add Comfort

When Dave and Mary Larsen set out to build their new home in 2010, comfort, design and energy efficiency were major considerations. The recently retired couple knew they wanted a single-story house with an open floor plan and lots of natural light. They chose high performance windows and appliances and decided to heat and cool their home with a combination of in-floor radiant heating and an energy-efficient mini-split ductless air source heat pump (ASHP).



Dave and Mary Larsen enjoy the comfort and energy savings of their ASHP.

"We wanted the nice, comfortable, neutral warmth and aesthetics of the in-floor slab heating, and our builder suggested the mini-split for summer cooling and for heating in the spring and fall," said Mary Larsen. "Neither of us wanted the artificial cold drafts or noise associated with traditional air conditioning, so this sounded like a good option."

"This past fall, we used our ASHP for heating and were able to hold off using the in-floor heating system until later in the season. It works beautifully, and we are very happy with the mini-split heating/cooling system in our home."

Mary Larsen, Homeowner

ASHPs use electricity to transfer energy between indoor and outdoor air. In the cooling mode, the heat pump moves heat from inside to outside the home. In the heating mode, the refrigerant is reversed to extract low-temperature heat from outdoors and deliver concentrated high-temperature heat to the indoor living space.

There are two types of ASHPs. Mini-split ductless systems have an outdoor condenser and one or more wall-mounted air-handling units in key locations throughout the house. They typically are installed in homes without ductwork, such as those with electric baseboard, slab or hydronic (boiler) heat. Furnace-integrated ASHPs are installed in homes with forced-air systems (ducts) and existing electric or fossil fuel heat.

cont.

PRESENTATION MATERIALS NOW ONLINE

If you missed the 2013 Energy Design Conference (EDC) or would like to review sessions, presentation materials are online at www.duluthenergydesign.com, including links to select videotaped sessions. This year's EDC, held Feb 25-27, drew more than 600 people and provided direct access to leading experts in high performance buildings, sustainable design and development, and current energy and environmental issues.



What people are saying...

"There is so much collective knowledge at this conference. I enjoy the networking opportunities and always find a lot of good information about new products and technologies."

David Marsh, C.G.T. Limited

cont. Properly sized and installed, ASHPs typically can satisfy 100 percent of a home's air conditioning needs and provide energy-efficient heating in late fall and early spring when temperatures are chilly but not well below freezing.

"As it gets cold outside, there is less heat available to extract," said Ben LaLone, operations manager, Summit Mechanical Service, Inc., of Duluth, Minn.

"Most of the units we are putting in can heat a home to the satisfaction of homeowners down to about 25° F. to 30° F. before another heat source is needed."

This makes them attractive even in cold-climate areas like Minnesota and Wisconsin where they help homeowners save energy and money, delivering up to three times more heating energy to a home than the electricity they consume.

Knowledgeable contractors can help homeowners choose equipment and systems that are the right fit for their specific applications and meet their energy-saving goals and performance expectations.

"Delivering quality products and installations is good for business and for our industry," LaLone said. "It benefits contractors and homeowners."

Minnesota Power encourages quality installations by requiring that program participating contractors be used to install ASHPs in order for homeowners to qualify for rebates.

"It was wonderful to work with Ben LaLone and the entire Summit Mechanical Service staff during our entire building process and on an ongoing basis since then," said Mary Larsen. "They are just so amazing to work with, it made the entire building experience a pleasure." 🏠

Pictured below: (left and center) Minnesota Power's booth at the Arrowhead Home & Builder Show featured ASHP; (right) Ben LaLone of Summit Mechanical Service is a participating ASHP contractor.



"The people who attend are serious about high performance building. We have done this show for more than 20 years."

Paul Kellner, Heritage Window & Door

Featured Incentives

Educate your customers about Minnesota Power's conservation incentives and build your business on energy efficiency:

ASHP Bonus—\$50 bonus on qualifying ASHP installations, through Aug. 31, 2013 (in addition to these standard ASHP rebates):

Standard ASHP Rebates for Electrically Heated Homes

- » \$500 rebate on new mini-split ductless ASHP systems
- » \$300 rebate on furnace-integrated ASHPs using an existing fan motor
- » \$500 total rebate on furnace-integrated ASHPs with an ECM fan motor

Standard ASHP Rebates for Non-Electrically Heated Homes

- » \$375 combo rebate on ECM fan motor for new, non-electric forced air furnaces with central air conditioning (CAC) or ASHP
- » \$250 combo rebate on CAC or ASHP and new ECM fan motor for existing, non-electric forced air furnace
- » \$50 ASHP proper installation rebate for non-electric forced-air or ductless system
- » Visit www.mnpower.com/ASHPRebates to learn more and download your \$50 bonus coupon! Systems must be installed by a participating contractor.

Ground Source Heat Pump (GSHP) Bonus—\$100 bonus for GSHP in approved Triple E new construction, through December 31, 2013
With \$100 bonus, rebates are \$300/ton on closed loop systems and \$200/ton on open loop systems, for a maximum rebate of \$2,100.

Contact Information



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Saving energy is like finding money ... through effective energy choices. Visit

www.mnpower.com/foundmoney

for more complete information on rebates and other energy-saving tools to help your customers and build your business on energy efficiency.