

# Building Up



*Building your business on energy efficiency*

*A message from ...*

the Power of One®  
Energy Conservation Team

Spring construction season is in full swing, and new homes are going up across the region. Builders and homeowners can get up to \$2,000 in rebates for building homes to Minnesota Power's Triple E New Construction standards for thermal integrity, airtight construction, moisture control, ventilation, heating and cooling, appliances and lighting.

This issue of Building Up focuses on a Triple E-qualified Habitat for Humanity house in Deer River, Minn. Its primary heat source is a cold climate air source heat pump (ASHP), donated through a partnership between Minnesota Power, Gustave A. Larson and Mitsubishi. ASHP technology has come a long way in recent years, and cold climate units are proving very effective in the Northland. We are proud to help Habitat for Humanity provide energy-efficient, affordable housing to families in our region.

Please check out our list of featured rebates and incentives to share with your customers, including a special discount for businesses on LED troffers and strips. Keep up the good work of building your business on energy efficiency.

## Contact Information

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A crew of volunteers from Minnesota Power helped install foam board and heating tubing during the pre-pour phase of construction.

## Minnesota Power Helps Habitat for Humanity Build Triple E Home with Cold Climate ASHP

Stephanie Severson and her three young children were all smiles as they moved into their new home in December 2016. It was more than the thrill of home ownership. This particular three-bedroom house in Deer River, Minn., was designed and built by Itasca County Habitat for Humanity to be healthy, durable and energy efficient—making it an affordable place to live for the long term.

Minnesota Power's Power of One® Home conservation improvement program (CIP) was a key partner in achieving that goal. The home was built to Minnesota Power's Triple E standards for thermal integrity and energy performance, qualified for significant utility conservation rebates and features a cold climate air source heat pump (ASHP) that was donated and installed free of charge through a partnership initiated by Minnesota Power.

Itasca County Habitat for Humanity officials regularly follow Triple E guidelines for homes built in Minnesota

Power's service area, turning to program consultant Doug Manthey for design reviews, installation inspections and blower door tests to qualify the homes for rebates up to \$2,000.

"Habitat for Humanity does a really nice job of building quality, energy-efficient, affordable homes," Manthey said. "A home that meets Triple E standards consumes about half the amount of energy as a house built to code, so when you look at affordability for people with limited incomes trying to reduce their

*"I was very excited about the system; it saves me money every month."*

**Stephanie Severson,  
Homeowner**

bills, that has a big impact over the life of a home."

The Severson home almost did not qualify for Triple E rebates, even though it was built to program standards for insulation, windows and doors, airtight construction, moisture control, appliances, lighting and ventilation. It was missing one key element—primary electric heat. The home's radiant floor heat system had a gas boiler.

Minnesota Power CIP Energy Analyst Chad Trebilcock immediately saw an opportunity to help the nonprofit and the homeowner, while advancing new technology at the same time. He noted the home would qualify for Triple E if builders installed a cold climate ASHP to meet all or most of the home's heating needs, with the gas boiler system as a secondary heat source.

"I knew this would be a perfect application," Trebilcock said. "ASHPs continue to gain more and more traction, especially in airtight, well-insulated Triple E homes where you don't need as many BTUs an hour to heat, plus new cold climate units are proving to work well in our region."

Minnesota Power partnered with distributor Gustave A. Larson and manufacturer Mitsubishi to donate and install a Mitsubishi cold climate ASHP with a seasonal energy efficiency ratio (SEER) of 22 and a heating season performance factor (HSPF) of 12. The high performance system produces heat efficiently at outdoor temperatures well below freezing. Partners also donated a base pan heater to protect the unit's condenser from the cold.



Homeowner Stephanie Severson with her son and twin daughters.

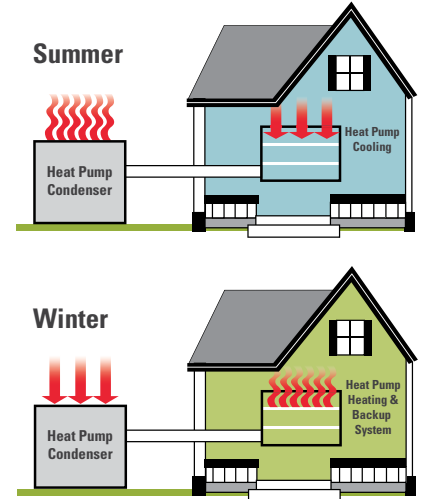
"We would not have been able to purchase and install the heat pump without this donation because we could not pass the cost on to the family, and we would have lost the \$1,900 Triple E rebate," said Goldie Swalboski, program coordinator, Itasca County Habitat for Humanity. "It is all about affordability."

"I was very excited about the system; it saves me money every month," Severson said. "In-floor heat takes days to heat up and cool down, but I can turn on the air source heat pump and the house warms right up—it makes a huge difference."

"It is very honorable when a corporation like Minnesota Power values what we do and thinks philanthropically," said Amanda Lamppa, executive director, Itasca County Habitat for Humanity. "I want Minnesota Power (and its partners) to know how much we value them." ■■

## How does an ASHP work?

ASHPs use electricity to transfer energy between indoor and outdoor air. Because they move heat rather than generate heat, these systems typically consume less electricity than electric-resistance heating systems.



Visit our website to learn more:  
[www.mnpower.com/ASHP](http://www.mnpower.com/ASHP)

## Featured Incentives

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

**Triple E New Construction:** Up to \$2,000 in rebates for electrically heated homes; prescriptive and performance incentives based on electric energy savings. Minnesota Power also offers free plan reviews and rebates for new homes that don't use electric heat.

**ENERGY STAR Air Source Heat Pump (ASHP):** \$300 rebate for proper installation

**ASHP (Furnace Integrated/Standard Split):** \$500 combo rebate; ENERGY STAR qualified ASHP: standard, furnace-integrated plus optional electronically commutated motor (ECM)

**ASHP (Mini-split Ductless):** \$500 rebate; mini-split ductless ASHP with electricity as the primary heat source

**New Forced Air Furnace or Air Handler with ECM and CAC Combo:** \$375 rebate

Visit [www.mnpower.com/rebates](http://www.mnpower.com/rebates) for complete information on rebates and other energy-saving tools to help your customers make effective energy choices.

## 2017 Business Lighting Promotion

Now is an excellent time to replace out-of-date lighting in your own business or to help commercial clients do the same. Minnesota Power is coordinating with participating lighting manufacturers, distributors and contractors to offer special discounted prices on select energy-efficient LED troffers and strips. Save \$20 per fixture with no rebate forms to fill out or mail in! Minnesota Power customers must work through participating contractors and distributors.

Learn more about the promotion and approved products at [www.mnpower.com/BusinessPromotions](http://www.mnpower.com/BusinessPromotions). Become a participating contractor or distributor by contacting Lindsey Buran at 218.355.2232 or email at [lburan@mnpower.com](mailto:lburan@mnpower.com).