

Building Up



Building your business on energy efficiency

A message from ...

the Power of One®
Energy Conservation Team

Homes on Parade is a Northland rite of spring. Organized by the Arrowhead Builders Association, this annual tour invites people to visit some of the best new homes in the area and showcases the craftsmanship of home building professionals. This year's lineup includes an energy-efficient concrete home that is Minnesota Power Triple E certified and dramatically exceeds current state and federal codes. Minnesota Power is proud to work with forward-thinking builders like Piontek Construction Inc. to advance energy-efficient home construction.

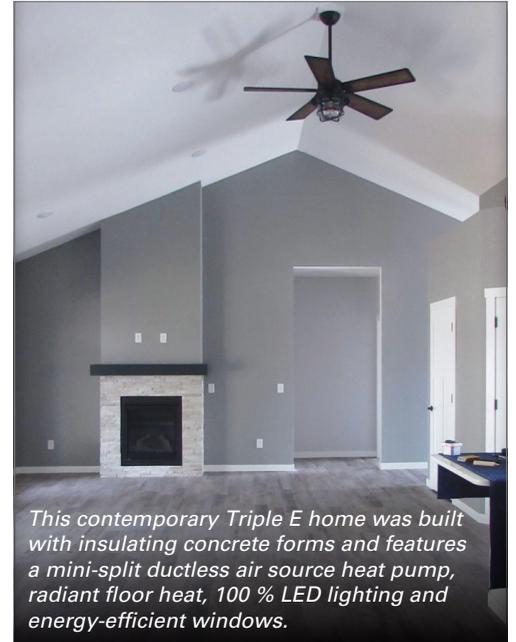
If you are a builder, HVAC contractor or supplier who works in Duluth, you may be interested in changes to a joint rebate program with the City of Duluth's ComfortSystems. It now offers mutual customers a combined rebate of \$400 for both natural gas furnaces and hydroponic or radiant heating systems with electronically commutated motors.

Please take time to read this issue and share energy-saving information with your own customers. Let Minnesota Power help you build your business on energy efficiency!

2018 Homes on Parade Tour Features Triple E Home

Nestled among birches and pines on a quiet Hermantown, Minn., street is an attractive new home, loaded with modern amenities and contemporary finishes. Like other stops on the Arrowhead Builders Association's 2018 Homes on Parade tour, this four-bedroom home is designed to impress prospective buyers and curiosity seekers. Most impressive of all, however, are details not seen at first glance—features that make it one of the most energy-efficient homes on the market.

Builder Chris Piontek has been in the home construction industry for 22 years. His company, Piontek Construction Inc., of Cloquet, Minn., specializes in high performance homes built with insulating



This contemporary Triple E home was built with insulating concrete forms and features a mini-split ductless air source heat pump, radiant floor heat, 100 % LED lighting and energy-efficient windows.

“Investing in a Triple E home is a good way to manage energy use and control costs. Minnesota Power is proud to help builders like Piontek Construction raise the bar on home construction.”

**Chad Trebilcock,
Minnesota Power**

concrete forms (ICF) rather than lumber. The stay-in-place forms, made of expanded polystyrene foam, are filled with poured concrete, resulting in airtight walls with a double layer of insulation around the entire home.

“Think of the exterior of the house as an envelope, and the tighter you can seal it

the more energy efficient you can be,” said Piontek. “With ICF construction, the concrete between two pieces of foam insulation stops air filtration and prevents energy loss.”

Piontek has been a Northland leader in energy-efficient home construction for decades. He began building homes that meet the stringent thermal and performance standards of Minnesota Power's Triple E New Construction Program back in the late 1990s. This home is no exception. A yard sign recognizes it as a Minnesota Power Triple E Certified Energy-Efficient Home.

Triple E stands for energy efficiency, education and evaluation. Through this program, Minnesota Power works in partnership with homeowners, builders, architects, suppliers and manufacturers to advance cutting-edge, energy-efficient principles and practices in the home construction industry. It offers tools

and rebate incentives for builders and homeowners to integrate energy-efficient heating and cooling systems, water heating equipment, lighting and appliances into their new construction projects. Triple E-certified homes average a 25 percent reduction in space heating costs compared to conventional new homes.



Chris Piontek and Chad Trebilcock pose with a sign promoting the home as Triple E certified.



Outdoor condensers for the mini-split ductless air source heat pump system, which provides both heating and cooling for the home.

In addition to ICF construction, Piontek's featured home includes a high performance mini-split ductless air source heat pump, radiant slab heat, 100 percent LED lighting, ENERGY STAR® appliances and windows that exceed Triple E program standards. Plans were submitted and reviewed by Minnesota Power prior to construction, and program representatives visited the site for midterm and final inspections. The latter included a blower door test to check air tightness.

"We really try to push energy efficiency up front, and Triple E certification is a selling point," Piontek said. "About 50 percent of the people who contact us do so because they want an energy-efficient home."

"Chris (Piontek) leads by example and has made a career out of building energy efficiently," said Chad Trebilcock, energy analyst, Minnesota Power. "Not all contractors build this way—people should know that."

Energy-efficient construction can increase the upfront cost of a home, but it pays for itself over time in energy savings, lower utility bills, improved durability and comfort. Piontek notes that ICFs have become a very cost-friendly way of constructing an energy-efficient home compared to other conventional methods.

"Investing in a Triple E home is a good way to manage energy use and control costs," Trebilcock said. "Minnesota Power is proud to help builders like Piontek Construction raise the bar on home construction."

Features of this Triple E home

- Attic: Blown cellulose R-70
- Walls: Insulated concrete forms (ICF) R-23
- Foundation: ICF R-23
- Slab: R-20
- Windows: U .27
- Airtightness: .08 cfm/ft2 @ 50 pascals
- Lighting: LED
- Appliances: ENERGY STAR®
- Heating/Cooling: Radiant slab; mini-split ductless air source heat pumps

Featured Incentives

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

Triple E New Construction: Homeowners and builders can qualify for special incentives of up to \$2,000 by meeting specific energy standards in new homes where electricity is the primary heating source.

Minnesota Power and ComfortSystems Joint Rebate: \$400 for installation of new 90% AFUE or higher gas furnace with integrated ECM blower motor or gas boiler with an integrated ECM circulator pump. Must be a customer of both Minnesota Power and ComfortSystems.

New Forced Air Furnace or Air Handler with ECM and Central Air Conditioning Combo: \$375 rebate

ENERGY STAR® Air Source Heat Pump (ASHP): \$300 rebate

Mini-Split Ductless ASHP: \$500 rebate

New Forced Air Furnace with ECM and ASHP (Standard Split) Combo: \$600 rebate

Ground Source Heat Pump: \$100-200 per ton rebate plus \$200 for ECM

Visit www.mnpower.com/Rebates for complete information on rebates and other energy-saving tools to help your customers make effective energy choices and build your business on energy efficiency.

Minnesota Power/ComfortSystems Combo Rebate Now Includes Heating Systems with ECM Circulating Pumps

Spring and summer are excellent times to prepare for the winter heating season. This year, Minnesota Power and ComfortSystems are building upon a successful joint rebate program so even more homeowners can benefit. The two utilities are now offering a joint \$400 rebate on qualified high efficiency natural gas furnaces and boilers with electronically commutated motor (ECM) fans or circulating pumps (\$200 from Minnesota Power and \$200 from ComfortSystems).

"The high efficiency boiler and furnace rebate program is extremely popular with our customers," said Eric Schlacks, ComfortSystems. "The program is very simple. HVAC contractors can get customers a rebate for saving natural gas and electricity through a single program sponsored by both utilities."

Qualified customers must be served by both Minnesota Power and ComfortSystems and have units installed by program participating contractors. Contact Eric Schlacks at eschlacks@duluthmn.gov or 218.730.4060 to learn more.

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