



## **Geothermal Heat Pumps Offer Ready Solution to Volatile Heating Fuel Prices During Winter Crises**

**T**here's nothing like a crisis to increase awareness, especially when that crisis is COLD. This winter has unleashed brutally frigid temperatures on citizens around the country, teaching all of us some hard lessons about reliable and affordable heat for our homes. For those suffering cold and shortages of high-priced fuels under the brunt of the Polar Vortex, there is an alternative—geothermal heat pumps.

“We’re working with government at all levels to increase their awareness of the cost-effective benefits our technology offers,” says Doug Dougherty, President and CEO of the industry’s leading trade group, the Geothermal Exchange Organization (GEO).

Bitter sub-zero temperatures across the eastern United States this winter have set new records—not only on thermometers, but for the price of propane and natural gas. Indeed, some rural areas have reported propane deliveries of up to \$5 and even \$8 per gallon. At the same time, natural gas has spiked from its recent low prices of \$3 to \$4 per thousand cubic feet up to \$14!

For homeowners this means skyrocketing heating costs, and even the potential nightmare of restricted deliveries during a deep freeze as distribution is limited to “essential services” when supplies dwindle. Such threats to the safety and well-being of millions of Americans have become synonymous with the historic winter of 2013-14.

As nasty winter weather escalates the volatility of gas and propane prices, it also cries for a cost-effective alternative. One that people everywhere can rely on to keep their homes snug and warm, and one that will tame soaring monthly energy costs. “That alternative is geothermal energy, stored by Nature in the earth beneath your yard,” says Dougherty.

The U.S. Department of Energy says that homeowners pay 70% of their energy bills for heating, cooling and hot water. Cutting heating and cooling costs by 50% or more with geothermal heat pumps puts more disposable income into homeowners’ pockets, insulates them from fuel price shocks, and spares them the fear of “running out” of fuel when the next Polar Vortex threatens.

Geothermal heat pumps offer a reliable, long-term solution, with state-of-the-art equipment and earth heat exchange loops warranted for up to 50 years. The U.S. Environmental Protection Agency (EPA) says that geothermal heat pumps are the most energy efficient, environmentally clean and cost-effective space conditioning system available today.

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Calculations from a major geothermal heat pump manufacturer show that at average prices during this year's blizzards, thermal energy from the earth saves 426% compared to fuel oil, 81% compared to natural gas, and an astounding 615% compared to propane! Considering recent supply problems and prices, relying on fossil fuels to heat homes just doesn't make much sense when geothermal heat pumps are so readily available across America.

"With the economic downturn we've all enjoyed lower energy prices, but all that is beginning to change with this winter's extreme price volatility of fuel oil, natural gas and propane," Dougherty continues. "Baseline prices for these fuels will surely rise as production regulations challenge the 'fracking' boom across America and more gas is diverted to power generation."

To comply with new EPA air quality regulations, utilities plan to shut down coal-fired power plants with 20,000 megawatts (MW) of capacity by 2015, primarily in the Midwest. And in 2017, new carbon regulations meant to avert climate change could shutter an additional 42,000 MW of coal plants. To generate that power, utilities will turn to natural gas, dramatically pushing up prices.

Natural gas flowing through pipelines to power plants at ever-higher costs kills the incentive to use it for propane production. According to NBC News (1/26), that set the stage this winter for the massive propane shortage that affected 14 million consumers in the Midwest, Northeast and Southeast.

"If you think this winter was bad for home heating, just wait." Dougherty said. "Unless we do something about it." That "something" is broad-based government assistance in promoting the many benefits of geothermal heat pumps to citizens across America. "What better insurance against price spikes of fossil fuels which are sure to come?" he asks.

The federal government, states and some electric utilities offer financial incentives for residential and commercial geothermal heat pump installations. "But we can do more," says Dougherty. "Responsible long-term public policies to promote the technology will help guarantee widespread adoption of the technology, providing growing margins of safety during future hard winters."

As a consumer, you can take action now to ensure your family's comfort and safety by considering a geothermal heat pump for your home. The best place to start is the Geothermal Exchange Organization (GEO) website, [www.geoexchange.org](http://www.geoexchange.org). There you will find a wealth of information about geothermal heat pumps and how they work. A convenient GeoExchange<sup>®</sup> Directory is just a click to find various brands, dealers and geothermal services near you.

*For an interview with Mr. Dougherty, contact him by phone at: (217) 414-0341.*

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**The Geothermal Exchange Organization** is a non-profit trade association representing the interests of its members through outreach to government and the public about the economic and environmental benefits of geothermal heat pumps. For more information, visit [www.geoexchange.org](http://www.geoexchange.org).

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