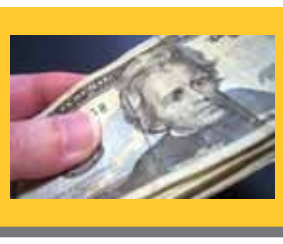
The CONSERVATION WAY

THIS ISSUE:
Everything you Need to Know About Geothermal Heating & Cooling

What's the most practical renewable energy solution? pg.2



Battle of the Best: Who's ***really*** the most efficient out there? pg.3

Renewable Energy Tax Credit Rewards Green Homeowners

Homeowners who install geothermal heating and cooling systems are eligible for increased tax incentives under the American Recovery and Reinvestment Bill of 2009.

Previous legislation offered a one-time tax credit of 30 percent of the total investment for residential ground loop or ground water geothermal heat pump installations, with a maximum credit of $2,000 for a single residence. The new bill removes the $2,000 cap and offers homeowners the entire 30 percent tax credit. Commercial building systems installed after October 3, 2008 are also eligible for a credit of 10% of the total investment.

The new tax credits are retroactive to Jan. 1, 2009 and expire on Dec. 31, 2016. Residential systems installed Jan.1, 2008 through Dec. 31, 2008 are also eligible for the 30 percent tax credit, but they are subject to the provisions of previous legislation, including the $2,000 cap.

To qualify for the tax credit, residential systems must meet Energy Star requirements. Owners can file for the credit by completing form 5695—the Residential Energy Efficient Property Credit on their tax return forms. No proof of purchase is required. However, in case of an audit, owners are encouraged to keep a detailed invoice of their purchase on file. The contractor who sold and installed the product should list the purchase as a "Geothermal Heat Pump" on the invoice and note that the unit "Meets or exceeds requirements of the Energy Star program currently in effect."

More than half a million homes currently benefit from geothermal systems because of the growing popularity fueled by soaring energy prices and homeowners looking to reduce their carbon footprints.

According to Tim Shields, WaterFurnace International chairman of the board, Congress' encouragement to use geothermal energy will have far reaching effects. "Geothermal heat pumps and the renewable heat exchangers in the earth are made in the U.S.," said Shields. "Every system installed requires skilled U.S. labor and more installations mean more jobs. This is truly a homegrown solution to the energy crisis and a very good way to address the financial crisis at the same time."

For more information about the benefits of a geothermal heating and cooling system, visit waterfurnace.com or contact your local WaterFurnace representative.

To learn more about the federal tax credits, visit dsireusa.org or contact your local tax professional.

Want to learn more about
the **30% RENEWABLE ENERGY FEDERAL TAX CREDIT?**

To download your guide free of charge visit:
waterfurnace.com/taxcredit

A *"Smarter"* Way to Heat and Cool

Tired of skyrocketing fossil fuel prices? The answer may be right under your toes.

What if there was an abundant source of free, renewable energy that could be used to heat a house in winter, cool it in summer and provide hot water at the tap all year round?

Well, a growing number of homeowners say there is: the sun. While most people already have a basic understanding of solar panels, these homeowners are actually talking about geothermal.

Geothermal heating and cooling is extremely energy-efficient and generally provides the lowest utility bills of any residential system. It taps into the renewable solar energy from the sun's rays that's stored in the ground and provides savings from 40%-70% on utility bills.

"The secret to a geothermal heat pump's amazing efficiency is that, although it operates similarly to a standard heat pump, it exchanges heat with the ground instead of the outdoor air," says Tom Huntington, President and CEO of WaterFurnace, the leading manufacturer of geothermal products. "The temperature of the outdoor air can vary greatly from day to night and more than 100˚F from the coldest winter night to the hottest summer day. In contrast, the temperature just a few feet below the earth's surface stays an average 55˚-70˚F year-round."

In the winter, a geothermal heat pump can produce over five dollars worth of heat for each dollar spent on electricity. Meanwhile, the most efficient traditional furnace returns less than 98¢ of heat for each dollar spent on expensive, polluting fossil fuel. And unlike ordinary heat pumps that struggle to pull heat from the air as the outdoor temperature drops, the efficiency and heat output from a geothermal heat pump remains constant.

During the summer, a regular heat pump or central air conditioner loses efficiency and cooling output when the outdoor temperature rises. Unfortunately, this is when your house requires the greatest cooling capacity. The 7 Series from WaterFurnace is one of the highest rated units ever certified by AHRI (the association responsible for industry ratings) at 41 EER (energy efficiency ratio). This is typically more than twice as efficient as a standard heat pump or central air conditioner.

To capture the heat energy from the ground in winter or disperse heat during summer, a long pipe is usually buried in the ground or placed at the bottom of a pond. An environmentally friendly antifreeze/water solution, running through the pipe, acts as the heat transfer medium. If there's an adequate supply of clean water, it can be used to transfer heat. Most WaterFurnace units also use earth-friendly R-410A refrigerant instead of Freon.

Geothermal systems are extremely quiet because there's no outdoor equipment to bother neighbors or your family at night. This also reduces wear and tear from constant exposure to outdoor weather and playing children.

The Environmental Protection Agency has called geothermal heat pumps—also known as ground-source heat pumps or geoexchange—the most energy-efficient, environmentally clean and cost-effective heating and air conditioning systems available.

More information about geothermal is available at the GeoExchange (geoexchange.org) website or at the WaterFurnace homepage (waterfurnace.com).

Geothermal heating & cooling has been installed by over 1,000,000 homeowners.

Choose the Right Installer or Pay the Price Twice

Choosing a qualified contractor is just as important as the equipment you choose.

Although installing a geothermal system isn't overly complicated, only a trained professional should attempt it. When done correctly, a geothermal system can provide years of low maintenance, high-efficiency comfort and unmatched energy savings. But incorrect sizing or installation from an unqualified contractor can negate any financial benefits through prolonged operation or repair costs and lead to other problems.

Some geothermal manufacturers are devoting a substantial amount of time and resources to proper training and education. WaterFurnace dealers are required to attend in-depth training in order to carry its products. In addition to hands-on classes, video training materials are made available online for continuing education.

"We provide the best equipment on the market, so it makes sense to provide homeowners with the best trained dealer network," says Michael Albertson, Senior VP Sales & Marketing at WaterFurnace. "We want to make sure every customer is proud to own a WaterFurnace."

If you're in the market for a geothermal system, continue to page 3 where we've provided some tips for homeowners to keep in mind when looking for a geothermal installer.

Comparing Shades of Green

Earth-friendly technologies become even more attractive as fossil fuel prices rise- but which is the most practical?

As fossil fuel prices continue to skyrocket, green technologies are becoming more attractive to homeowners tired of increasing utility costs. From geothermal systems to wind turbines to solar panels, reducing the size of your carbon footprint is becoming something to brag about, as well as being forward thinking.

All three help the environment, but which is the most practical? If your motivation is purely environmental, then any of these options are outstanding. But if, like most homeowners, you're looking for a way to help your budget as well as the planet, or if you'd like to see maximum impact for your investment, read on.

Wind is actually a form of solar energy. Winds are caused by the uneven heating of the atmosphere by the sun, the irregularities of the earth's surface, and rotation of the earth. This wind flow, or motion energy, when "harvested" by modern wind turbines, can be used to generate electricity.

Wind turbines are now spreading beyond wind farms to people's homes. Homeowners are able to generate their own electricity, and when they produce more power than they consume, the electric meter actually spins backwards as energy is sold back to the grid.

A typical turbine system can cost anywhere from $15,000 -$60,000, depending on size. This high price along with moderate energy returns makes financial payback extend into decades, although government rebates may help to shorten that time.

As for solar panels, the sun generates enough in one hour to power the electrical demand of the entire world for one year. The key is capturing this energy and converting it to a usable form.

Solar panels are made of thin layers of silicon that generate electricity in sunlight. Unlike wind turbines, which some homeowners find visually obtrusive, solar panels are subtler. And like wind turbines, homeowners can usually sell back excess energy.

> **"Geothermal is viable and currently in use in all 50 states."**

Payback for these systems are much shorter, but until cells become more efficient or less expensive, payback time is still long at 15-25 years—depending on location and size. Rebates are also available to shorten payback.

But in many cases, not everyone has a strong enough wind or solar resource to make either investment cost-effective. Usable solar radiation occurs only from about 9 a.m. to 3:30 p.m., even on sunny days, rendering a solar panel ineffective for the majority of time. Moreover, wind turbines are not feasible in many neighborhoods and cities.

Geothermal heat pumps, on the other hand, can provide heating and cooling 24 hours a day, all year long. Geothermal systems can be scaled for a single-family home to entire city blocks or more. And unlike the other options, geothermal is viable and currently in use in all 50 states.

It's interesting to note that although all three solutions compared here seem very different, they're actually different ways to capture the same solar energy. Geothermal units tap into the stored solar energy just below our feet. The earth absorbs roughly half of the sun's energy, and a geothermal heat pump simply collects and moves that energy.

The cost of the unit is not much greater than a new traditional heat pump. It's the cost associated with installing the series of underground pipes (a loop) that makes this option more expensive. But even with added loop costs, geothermal systems are so energy-efficient that the payback period is remarkably brief. A study by the Air Force Institute of Technology calculated that it takes on average just eight years or less to recoup costs.

Since these units don't use combustion or any fossil fuels, they are great for the environment. More than 1 million U.S. households now heat and cool their homes with the stored solar energy in their own backyards. According to the non-profit group, GeoExchange, these homes currently eliminate more than 5.8 million metric tons of CO_2 annually or take the equivalent of nearly 1.3 million cars off the road.

And the most attractive aspect is that geothermal can lower your bills enough to offset any monthly installation expenses. For example, a homeowner may spend $50 a month to finance an installation; yet the geothermal system may lower bills by $75 a month – effectively paying the homeowner $25 a month to install it.

An interesting fact is that the geothermal heat pump industry has, until recent tax credits, been profitable without the benefit of the federal incentives wind and solar have traditionally enjoyed.

So which green technology is the most practical? Without a doubt, the winner at this point is geothermal heating and cooling. It's a constant, reliable resource that is available in virtually every environment. It has a short payback period and helps reduce both our dependence on oil and our carbon footprint.

PRODUCT SHOWCASE:

A Geothermal Triple Threat

A unique product from WaterFurnace offers forced air heating and cooling, radiant floor heat and domestic hot water production—all in one unit.

The best heating system a house can have is the one you don't realize is there. No radiators clanking while you sleep. No gas furnace roaring to life. No too-hot to too-cold temperature swings associated with fossil fuel systems. Just an even blanket of heat, right where you want it.

That's the appeal of the Synergy3D Series from WaterFurnace, a leading manufacturer of geothermal heating and cooling products. For homeowners who desire radiant floor heating, it's an exciting product that's highly efficient and increases comfort as it reduces energy costs.

In a radiant setup, the warmth is supplied by hot-water tubes or electric wires buried underneath the floor. As the invisible waves of heat rise from below, they warm up any objects they strike, which radiate that captured heat in turn. You stay comfortable because the surrounding surfaces aren't stealing warmth from your body.

Photo courtesy of Maxxon.

Clockwise from right: The WaterFurnace Synergy3D unit. Hydronic heat can be used in applications ranging from radiant floors to snow melt for sidewalks. Radiant systems circulate water through loops of 1/2-inch polyethylene tubing.

So, how is the Synergy3D better than traditional radiant systems?

Today's high efficiency hydronic boilers are expensive to purchase. Electric radiant systems are expensive to operate. Both still require you to purchase a separate air conditioning system for cooling, and radiant systems take much longer to react to thermostat changes than forced air units. Also, carpeted rooms remain a challenge to heat.

> **Traditionally homeowners have had to choose between the luxurious comfort of radiant heat and the ease of forced air. Thanks to the Synergy3D Series, that's no longer the case.**

The Synergy3D Series combines the best of both worlds. It provides the luxurious comfort of radiant heat for basement and bathroom floors while it provides traditional forced air heating and cooling for the rest of your home. Homeowners no longer have to purchase a dedicated boiler, a furnace for the rest of the house, and an air conditioner to cool in the summer. The Synergy3D does it all in one convenient package. And, like all WaterFurnace systems, the Synergy3D uses the clean renewable energy in your own backyard to provide savings up to 70% on heating, cooling and hot water. It's five times more efficient than the best performing boiler!

Additionally, the units are smart enough to supply high volume hot water only when you need it—unlike the water heaters in most homes. When used in conjunction with a smart thermostat or zoning system, homeowners can enjoy an amazing level of control over the temperatures in every area of the house.

When the need for heat in an upstairs bedroom arises, the unit automatically switches over to provide forced air heating. When you awake in the morning, the Synergy3D units can make sure the bathroom floor and shower walls are warm. It can even help provide ice-free sidewalks during the winter months. Later in the season, as outdoor temperatures increase, the unit begins providing refreshing air conditioning throughout the house.

WaterFurnace has seen an incredible demand for the product and expect sales to be especially strong in the northern areas of North America, which are traditionally the largest customers for radiant and hydronic systems. For more information on this product, visit the manufacturer at waterfurnace.com.

Earth Loops: The Heart of a Geothermal System

The earth loop transfers heat to and from the ground—eliminating the need for fossil fuels. It's the heart of a geothermal system and its biggest advantage over ordinary heating and cooling technologies. Earth loops come in two basic types. Closed loops are buried in the earth or submerged in a lake or pond. They transfer heat by circulating a solution of water and environmentally safe antifreeze. Open loops use ground water pumped from a well as a heat source. The type to use depends on the terrain, the cost of trenching or drilling, the availability of quality ground water, and available space. Your geothermal dealer will help you make the best choice.

Horizontal Trench Loops

If adequate land is available, horizontal loops can be installed. Trenches are dug using a backhoe or chain trencher. Polyethylene pipes are inserted, and the trenches are backfilled. There are various designs of horizontal loops using one, two or three circuits per trench. The more pipes in each trench, the shorter the trench can be. Trenches normally range from 100 to 300 feet depending on the design. A typical home requires 1⁄4 to 3⁄4 of an acre for the trenches.

A variation on the horizontal loop is the horizontal bore loop. This type of loop is most often used in a retrofit situation to minimize disruption to the landscape. It requires special equipment to bore holes horizontally under the surface. The operator can "steer" the drill head to go deeper or shallower, or turn right or left. This machine drills at a slight angle down to a typical depth of 10-12 ft., then back to the surface, typically 200 ft. away. At that point, two ends of pipe are attached to the drill bit and pulled back through the hole until the pipe is buried. This technique allows the loop to be placed underneath homes, basements, wooded lots or even swimming pools.

Pond Loops

If an adequately sized body of water is close to your home, a pond loop can be installed. A series of sealed pipes containing a mixture of water and antifreeze can be coiled and sunk to the bottom. Using pond water directly is never recommended. A 1⁄2-acre, 8-foot-deep pond is usually sufficient for the average home. Ideally, the pond should be close to the home (less than 200 ft.). If the pond is farther from the home, the benefit of using a pond loop is reduced due to added trenching, materials and pumping costs.

Pond loop coils are connected together on dry land and then floated into location. Once filled with fluid, they will sink to the bottom and remain there. Generally, a 300 ft. coil is used for each ton of capacity. This is less pipe than is used in an earth loop because water is a better conductor of heat energy. Pond loops are a cost effective way to install a geothermal system because trenching is limited to only the supply and return piping from the pond to the house.

Vertical Loops

Vertical loops are used where space is limited or where soil conditions make horizontal loops impractical. Installing vertical loops requires the use of a drilling rig. Multiple holes are bored about 10 feet apart. A double pipe connected with a U-bend is inserted into each hole. The hole is filled with grout to provide good contact around the pipe and to seal the hole. The vertical pipes are then connected to a header system horizontally a few feet below the surface. The depth of the holes is dependent upon soil/rock conditions and the size of the system. Although most holes are bored about 100 to 250 feet deep, there's no "magic depth" that needs to be reached. Capacity is not based on depth; rather how much pipe is in the ground and the overall thermal conductivity of the borehole.

Open Loop (Well System)

If an abundant supply of quality well water is available, an open loop system can be installed. A proper discharge site such as a ditch, field tile, stream, or pond must also be available. Be sure to check all local codes before selecting a discharge method. This installation usually costs less to install and delivers the same high efficiency since groundwater maintains a relatively constant temperature year-round. Depending on water quality, periodic cleaning of the heat exchanger inside the unit may be necessary. Well water containing too many contaminants may not be suitable for use with a geothermal system as it may cause the unit's performance to degrade over time. Proper testing of the water prior to installation is required.

Tips for Choosing the Right Geothermal Contractor

(continued from pg.1)

Go With a Pro
Hire only professionals who follow the procedures established by the International Ground Source Heat Pump Association (IGSHPA). Make sure the manufacturer of the unit has trained your contractor and the contractor has installed geothermal before.

Check Training Credentials
Installers should be accredited by IGSHPA or be able to show training by the equipment manufacturer or from experts at industry recognized institutions. Companies like WaterFurnace require in-depth training in order to become a part of the independent dealer network.

Ask for Geothermal References
Ask contractors for references from customers who have had geothermal installed and call them. Ask about their professional performance and if the job was completed on time and within budget.

Expect a Home Evaluation
You should plan on an examination of your home. The contractor should check ducts, insulation and other features for energy efficiency. Software tools like GeoLink Design Studio ensure the most accurate analysis of your home and potential savings.

Ask Questions
Inquire about the contractor's experience installing geothermal. Don't hesitate to ask about the recommendations for your home. Ask if the contractor has installed a geothermal system in his or her own home or business.

Get Written Estimates
Talk to multiple contactors and get a cost estimate in writing. Ask for a breakdown between labor and equipment costs. Be sure you are comparing "apples to apples." If you have any questions, ask the contractor for clarification.

Cheaper is Not Always Better
You'll spend many years with your system. Energy efficient equipment costs less to operate every day, and going with the cheapest price will probably cost more in the long run.

Get a Guarantee
Nearly everything you purchase comes with a warranty. Ask for a guarantee, in writing, on installation work as well.

Insist on a Written Contract
Sign a written proposal before work gets started to protect both parties. Specify project costs, model numbers, job schedule and warranty information.

Make sure the manufacturer of the unit has trained your contractor and the contractor has installed geothermal before. Companies like WaterFurnace require in-depth training in order to become a part of the independent dealer network.

Battle of the Best

We compare the best-of-the-best in this match-up to see: "who's really the most efficient?"

There are a lot of companies claiming to have the most efficient heating and cooling system out there. But how can there be more than one best? It doesn't help that when you shop for a heating or cooling system, there are competing acronyms thrown around. Below, we take the very best that each camp has to offer and compare them to show clearly which is the most efficient. We also define efficiency terms and how they relate. Use this guide to help you make a more educated comparison between systems.

98 AFUE FURNACE

Although the 98% efficient furnace is an impressive feat considering it burns fossil fuels, it simply can't hold up to the competition efficiency-wise. Looking at the performance chart, it becomes clear there are far more efficient solutions out there. When you consider that you'll still need to buy an air conditioner to cool your home, this solution falls to last place.

AFUE is the Annual Fuel Utilization Efficiency—A standard measurement of efficiency for gas and oil-fired furnaces. Given in percentages, this number tells you how much of your fuel is used to heat your home and how much fuel is wasted. The higher the AFUE rating, the greater the efficiency. Currently, the highest rated gas furnace is 98AFUE. That means for every $1 you spend on fuel, you'll receive 98¢ back in heat.

21 SEER/9.5 HSPF HEAT PUMP

The heat pump is a serious contender. It provides both heating and cooling and is nearly twice as efficient at heating as the gas furnace. In the end though, it can't come close to the geothermal unit, and its outdoor home means the system must suffer efficiency-robbing abuses from the moment it's installed.

SEER is the Seasonal Energy Efficiency Ratio—A measure of cooling efficiency for air conditioners and air-source heat pumps over an entire season. The higher the SEER, the more efficient the air conditioner. Technically speaking, SEER is a measure of the total cooling (in Btu) during the normal cooling season as compared to the total electric energy input (in watt-hours) consumed during the same period. Currently the highest rated heat pump is 21 SEER.

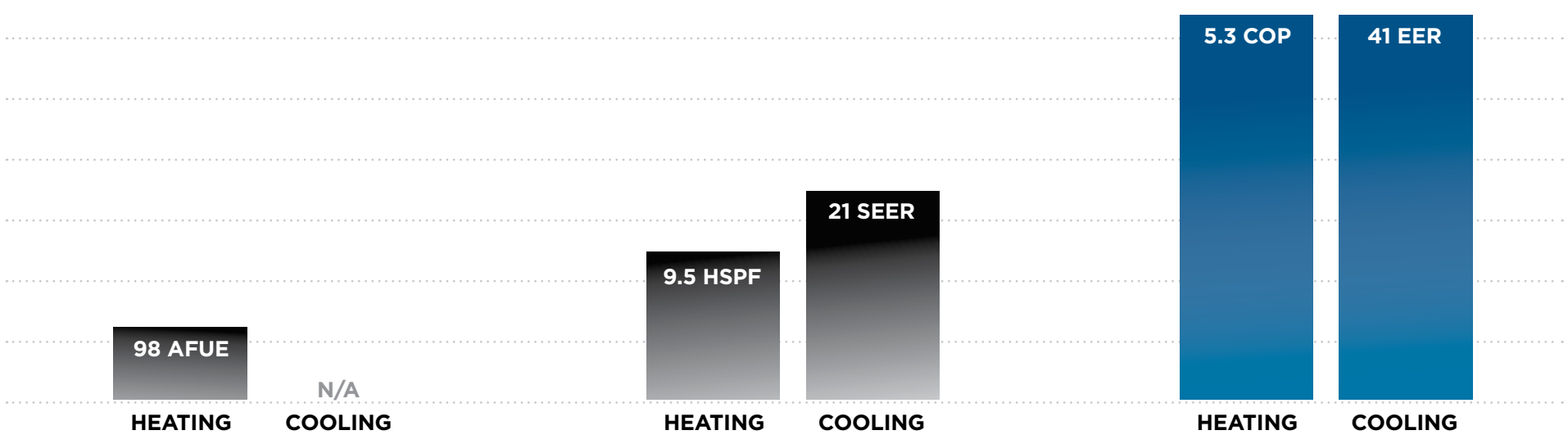
HSPF is the Heating Seasonal Performance Factor—A measure of efficiency in the heating mode of heat pumps. The higher the number, the greater the efficiency. Today's models are required to have a 6.8 HSPF. Currently, the highest rated heat pump is rated at 9.5 HSPF.

41 EER/5.3 COP WaterFurnace 7 Series

The clear winner. The WaterFurnace 7 Series is leagues more efficient than the competition. And because there's no noisy outdoor equipment, there's nothing to clutter your yard. The geothermal unit provides both heating and cooling—but with far greater savings. The 7 Series is truly one of the most efficient units on earth.

EER is the Energy Efficiency Ratio—A measure of efficiency in the cooling mode that represents how efficiently a system will operate when measured at a constant temperature(95°F). The higher the EER, the more efficient the unit. The WaterFurnace 7 Series holds one of the highest recorded certified performances of 41 EER.

COP is the Coefficient of Performance—A measure of efficiency in the heating mode that represents the ratio of total heating capacity to electrical energy input. The WaterFurnace 7 Series holds one of the highest recorded certified performance of 5.3 COP.



Is Green the New Black?

As energy costs and green awareness rise, a very surprising must-have is gaining popularity around the world.

There's a new must-have status symbol among the famous these days. It isn't the new 1000 HP supercar from Italy. Nor is it a diamond encrusted smart-phone from Paris. It's a geothermal heat pump from Fort Wayne, Indiana, and everyone from the Queen of Country Music to Queen Elizabeth II has been lining up to get one.

WaterFurnace International is framed by fields to the east and west, a large pond to the north, and the Fort Wayne International Airport to the south. It's surprising for some to learn that the attractive yet unassuming 115,000 square-foot building houses North America's leading manufacturer of geothermal equipment for homes. The technology that provides super-efficient heating and cooling to Buckingham Palace comes from this plant.

Geothermal heat pumps—also known as geoexchange—take advantage of the fact that the ground is able to maintain a relatively constant 50°-55° in North America. That's because it absorbs 47% of the solar energy that reaches the Earth's surface. Geothermal systems are able to tap into this free energy with a series of water-filled underground pipes called a "loop."

Clockwise from bottom: WaterFurnace International world headquarters. Buckingham Palace utilizes geothermal. A typical geothermal installation.

During the heating cycle, a geothermal system pulls heat from the ground, concentrates it with a compressor, and distributes it through a conventional duct system as warm air. The same heat energy can also be used for a radiant floor system or domestic hot water heating.

In the cooling mode, the system air conditions your home by reversing the heating process. Instead of extracting heat from the ground, it's extracted from your home and is either moved back into the earth or used to preheat the water in your hot water tank.

The U.S. Environmental Protection Agency (EPA) has called geothermal "the most energy-efficient, environmentally clean, and cost-effective" way to heat and cool our buildings. That may explain why Microsoft cofounder Paul Allen has geothermal. As does singer Sir Elton John. Vice President Al Gore has it installed in his home and President George W. Bush does too. George Lucas turned to geothermal for Lucasfilm's new 185,000 square-foot office and entertainment complex.

"Green" chic may appeal to the rich and famous, but the fact that geothermal can lower utility bills up to 70% is making it attractive to ordinary people. An estimated 1 million buildings in the United States have geothermal installed, according to John Kelly, manager of operations for GeoExchange. He says that number is growing at more than 10 percent a year. Some industry players believe even that estimate is conservative.

The boom has geothermal U.S. heat pump manufacturers working overtime. WaterFurnace has experienced record-breaking growth and profits and has been chosen by many funds and market analysts as a green company to watch.

Traditionally, geothermal systems are more expensive to set up than conventional heating systems. Although payback is usually short at between 5 and 7 years, the initial cost has still been a barrier for some. New federal tax benefits and utilities offering rebates for installing geothermal heat pumps are effectively erasing that obstacle. Homeowners can receive a tax credit for 30% of installation costs in the U.S., and many states offer their own additional incentives. Canada has instituted similar programs to speed adoption.

Even without financial incentives, geoexchange makes sense in larger buildings. The WaterFurnace headquarters is a testament to the capabilities of a large-scale geothermal system. The three-acre pond in front of the building houses a pond loop that helps condition the entire structure. The total capacity of the system is 153 tons, 134 of which were installed in 1991 and 19 of which were added in 1995. Operating costs are estimated to be less than half that of a similarly sized building with traditional heating and cooling.

More than 1,500 schools and colleges in the U.S. now use geothermal heat pumps. According to the EPA, schools using geoexchange today are saving an estimated $25,000,000 in energy costs and save a half-billion pounds of carbon dioxide (CO_2) emissions per year.

It may not go from 0-60 in 2.9 seconds or come encrusted with Swarovski crystal, but from big names, to big business, to the Big Ten, it's easy to see why geothermal is so attractive.

Where Can I Find Out More?

The Geothermal Exchange Organization

geoexchange.org

The Geothermal Exchange Organization has been working aggressively to increase the awareness and use of geoexchange technology both governmentally and publicly across the United States. This effort is driven by the belief that environmental stewardship is crucial to the nation's economy and quality of life.

Dedicated to industry growth, The Geothermal Exchange Organization continues their primary goal, which is to successfully influence legislation on Capital Hill for the advancement of geoexchange technology. Increasing adoption of geoexchange technology will not only reduce the nation's energy consumption and greenhouse gas emissions, but our nation's dependence on fossil fuels as well.

Through public outreach and education The Geothermal Exchange acts as a resource for anyone who would like to know more about geoexchange technology. A full-time staff and industry allies are available and can provide technical expertise, marketing research data and insight, and current industry activity status.

To further their objective The Geothermal Exchange Organization believes in developing and maintaining partnerships with industry associations. Electric utilities, equipment manufacturers, architects, designers, engineers, contractors, builders, drillers, energy service companies, and other private sector companies are all trades in alliance with geoexchange.

The Geothermal Exchange Organization continues to break through industry barriers and implement outreach strategies which are leading the industry forward to new and exciting opportunities.

The International Ground Source Heat Pump Association (IGSHPA)

igshpa.okstate.edu

IGSHPA is a non-profit, member-driven organization established in 1987 to advance ground source heat pump (GSHP) technology on local, state, national and international levels. Headquartered on the campus of Oklahoma State University in Stillwater, Oklahoma, IGSHPA utilizes state-of-the-art facilities for conducting GSHP system installation training and geothermal research. With its access to the most current advancements in the geothermal industry, IGSHPA is the ideal bridge between the latest technology and the people who benefit from these developments.

The mission of International Ground Source Heat Pump Association (IGSHPA) and its membership is to promote the use of ground source heat pump technology worldwide through education and communication.

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