



# Wisconsin Geothermal Association

Autumn  
2008  
Issue

## Jackson Electric Co-op Goes Geo

When Jackson Electric Cooperative in Black River Falls made plans to build a new headquarters facility, Steve Meyer, Member Services Director at the cooperative had geothermal heating and cooling on the top of his “must-have” list of features for the facility. According to Meyer, the original cost estimate for the building from the architect included geothermal heating and cooling in the office area but somehow excluded it in the shop, garage and warehouse areas. Because geothermal heating showed such a great payback over all other heating systems, the co-op directors agreed to go over the \$4 million budget if necessary to pay the added cost to get geo in the whole building.

The 35,192 square foot facility has a 66-ton loop buried under a water retention pond that catches parking lot run-off. The office area has 15 water-to-air units totaling 31 tons providing heating and cooling to 12,104 square feet. The remaining 23,088 square feet of garage/shop/warehouse area receives hot water for in-floor tubing from two 25-ton water-to-water units. The co-op’s

geo system was designed by Todd Armstrong from Architectural Design Group of Menomonie, also a WGA member.

According to Meyer, “We knew geothermal heating was the way to go. Our linemen had been working out of a separate facility that had geothermal in-floor heating. We tracked the electrical usage of that system very closely and it was very low.” Meyer went on to say that because the geo systems are not metered separately in the new facility, tracking the usage is difficult. “We’ve only been in this building since January. After we’ve been here awhile, I’ll be able to track seasonal trends in electrical usage which will enable me to approximate our heating and cooling costs.”

Meyer said they pushed for several other changes from the original plans. All the non-office area was to be concrete block construction. It had a very low insulation value. Pre-cast concrete wall panels with foam insulation sandwiched in-between were used instead. The plans also called for propane unit heaters in the warehouse but in-floor tubing tied to the geo system was installed instead.

With any HVAC system, comfort of the building occupants is of great importance. “The great thing about our geo system” according to Meyer, “is we not only have the most economical heating and cooling costs of any available HVAC system, the occupant comfort levels compare to the best. The 15 water-to-air units in the office area provide enough separate zones that everyone can “dial-in” the temperature that is right for them. And the in-floor heating in the garage/shop/warehouse area; how can you beat that? You can definitely put our geo system in the win column.”



Steve Meyer, Member Services Director at Jackson Electric.



Water Source Heating and Cooling of Eau Claire installs the loop for Jackson Electric Cooperative’s new geo system. The inside work was done by Cargill, Inc. of LaCrosse.



# Midwest Renewable Energy Fair: WGA Was There!

June 20-22, 2008, were the dates of the Midwest Renewable Energy Fair and Conference at Custer WI. Some of your fellow Wisconsin Geo Association board members and other association members participated in this three-day event bringing non-stop conversation with many, many interested parties.

Friday, the first day of the event, brought a large crowd and good weather causing steady geo discussion with attendees.

Saturday brought an energy solutions oriented mob to the grounds making that central sands area of the state look like an end-of-shift exodus from an ant hill. Again, the energy

enthusiasts were hungry for more information. By Sunday the WGA was just about out of geo handouts when a brief rain midday tempered the crowd to a nice steady pace of geo conversation.

There were three one-hour geo presentations provided by the Association to standing room only crowds in the education tents. The MREA's early totals indicate about 22,000 attendees over the three-day event. Geo contractor members who helped out picked up some good leads for their efforts.

Many THANKS go out to the WGA members who assisted with the event. All WGA members should mark your calendars for June 19-21, 2009, and we'll see you all there next year.



*Attendees are eager to hear about Geothermal technology in the education tent.*

## WGA Members Present Training Sessions: “The Right Way To Go Geo”

Spring 2008 was a busy time for geothermal training. One of the many events going on was the “Right Way to Go Geo” sessions presented through the Energy Center of Wisconsin by Leo Udee and Manus McDevitt, two WGA members. Leo focused on presenting how geothermal relates to residential applications and Manus on commercial. Dan Carroll was also on hand to provide demonstrations of pipe fusion techniques as well as flushing and purging. In total 122 people attended the sessions held in Hudson, Madison and Green Bay. The attendees included design engineers, architects,

contractors, facilities managers and equipment distributors. The feedback was great – many of the attendees mentioned that they are committed to use geothermal for their future projects.

Training is one of the key bottlenecks in the growth of geothermal in Wisconsin and the WGA is committed to providing these types of sessions to make sure building owners, architects and engineers are comfortable with the technology as they consider their projects. Leo, Manus and Dan plan to be back again for another round of training sessions next spring. “Hopefully we’ll see you there!!”





## Calendar of Events

Oct 6-8 Geothermal Systems for Water Source Heat Pumps and Central Systems, Madison WI  
(<http://epd.engr.wisc.edu/webJ426>)

Oct 13-16 UW Engineering Professional Development - GeoThermal Systems Design Course, Madison WI. For more information call 800-462-0876

Nov 4-6 IGSHPA Accredited Installers Workshop, LaCrosse WI

Nov 11 Modern Heating Options by Tom Durkin, Madison WI

Jan 19-24, 2009 Lake Superior Green Building Conference, Ashland WI

For information on any event in the calendar of events, contact the Energy Center of Wisconsin, 866-436-7757, or visit the website listed.

### Wisconsin Perspective Magazine and WGA Join Forces



Wisconsin Perspective Magazine a trade publication for the plumbing, HVAC and mechanical industry here in Wisconsin has invited the Wisconsin Geothermal Association to participate in an alliance to help promote a better understanding of Geo Thermal Renewable Energy. We are delighted to partner with WGA and look forward to their input and the sharing of information with our readers said publisher Roger W. Perleberg

We plan to unveil "Green Perspective" a special section dedicated to Solar and Geo Thermal information beginning with the September/October edition of WP. The association will work with the magazine to develop articles on the basics of GEO, product applications, case studies, training resources and to promote the advantages of membership in WGA.

For more information on Wisconsin Perspective Magazine and to receive your own FREE subscription to WP go to [www.wisconsinperspective.com](http://www.wisconsinperspective.com)



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