President's Message

Here it is, almost the end of 2013. My year seemed to fly by. How about yours?

Your association has been very busy this year and it's good to take a look back at some of the things we have accomplished.

It started with a great conference in February. Not long after, members of the Board of Directors met with state representatives and senators to discuss geothermal issues.

In June, we had our annual Geothermal Ride and in July, our first-ever golf outing. More recently, we met again with our legislators to discuss the possibility of making changes to laws affecting geothermal, possibly as early as next year.

Right now, we are in the midst of planning our next conference and securing a lineup of great speakers and topics to benefit all of our members. We have also contracted with a firm to update our website, including a much-improved dealer locator. We're also involved in discussions with the DNR about the proposed rules related to the construction of vertical drill holes used for construction. We continue to do outreach and, because we can't rest on our progress to date, we continue to build relationships in the Capitol.

And while it's great to look at what we have done, it's probably more important to look to the future.

In February, I hope you will all join us at the Osthoff for more great classes and networking opportunities. We also need to finish updating the association website and once we have more details, we will be asking our members to contact their state representatives and senators to ask for their support of our legislative agenda. We are planning another Geo Ride the first Friday of June and a 2nd annual golf outing too.

In the end, WGA is here to promote an industry and to serve our members. We appreciate your membership and support of our programs and events throughout the year. Behind all of this effort is a dedicated group of leaders - our Board of Directors - who give a little bit more of their time and talent to help us advance our cause. Many thanks go to each of them! And if you've ever thought about being more involved, I encourage you to contact me or the WGA office to learn more about Board service or service on one of our other work groups that convene from time to time.

As always, we want your input! What is it that you would like to see your association accomplish in the next year? Next five years? Please feel free to contact me or any of the board member with your ideas.

Together, let's have a successful 2014!

Mark Flock is President of the WGA and is President of Flock's Heating & Air Conditioning in Cashton, WI. He can be reached at 608/654-5522 or mark@flocksheating.com
**Important Clarification on the 30% Federal Tax Credit - Distribution, Back-Up Excluded**

We have been advised of a change in the IRS's interpretation of the federal tax credit for geothermal heating/cooling systems. According to a note on the IRS website, dated November 1, 2013, the distribution system and emergency heat portions of the system are not covered as part of the federal tax credit. Piping and wiring remain eligible under current guidelines.

The IRS states,

“Only the cost of the heat exchange equipment in the ground outside the house can be eligible for the § 25D credit. The costs for the distribution system for the home and a back-up emergency heating or cooling system are not eligible for the credit because they are not incurred for qualified geothermal heat pump property.”

Unless this ruling is overturned, installers can assist homeowners filing for the credit by providing homeowners with an itemized invoice listing, listing those charges that are eligible for the tax credit and those that are excluded. Encourage the homeowners to consult with a tax professional for accurate information on this and any tax code.

Here is the question posed to the IRS and its answer in their entirety:

Q: A taxpayer contacts a seller to inquire about the installation of a geothermal heat pump to heat his home. The seller/installer informs the taxpayer that the following items must be installed in addition to the geothermal heat pump: heat exchange equipment in the ground outside of the house, a distribution system for the home, and a back-up emergency heating or cooling system. Which of these costs, if any, are eligible for the § 25D credit?

A: Only the cost of the heat exchange equipment in the ground outside the house can be eligible for the § 25D credit. The costs for the distribution system for the home and a back-up emergency heating or cooling system are not eligible for the credit because they are not incurred for qualified geothermal heat pump property.

Section 25D(d)(5)(B) defines qualified geothermal heat pump property as any equipment that (1) uses the ground or ground water as a thermal energy source to heat the dwelling unit or as a thermal energy sink to cool such dwelling unit, and (2) meets the requirements of the Energy Star program in effect at the time that the expenditure for such equipment is made. Section 25D(e)(1) provides that expenditures for piping and wiring to interconnect qualified property to a dwelling unit are eligible for the § 25D credit. However, nothing in § 25D extends the credit to other auxiliary equipment such as distribution systems within the dwelling unit or backup emergency heating and cooling systems.

**Happy Birthday, Income Tax!**

And speaking of the IRS, federal income tax just celebrated its 100th anniversary this fall.

Signed into law by Woodrow Wilson on October 13, 1913, the tax rate was 1 percent of taxable income (after deductions and exemptions). For those with incomes over $20,000.00 (about $470,000.00 in today's dollars), the tax rate was 2 percent, and for those with incomes over $500,000.00 (just under $12,000,000.00 in today's dollars), the tax rate was 6 percent.

Only about 1 percent of households paid any tax at all. An IRS Form 1040 required only one page of instructions.

By 1918, just five years later, the top rate (for income over $1,000,000.00) was increased to 77 percent.
**GEO Promotes Extension Of Federal Tax Credit**

Our friends at the Geothermal Exchange Organization (GEO) have taken a public position on behalf of the industry regarding the tax credits in force until 2016 for geothermal heat pump (GHP) installations. GEO filed comments last spring to the House Ways and Means Committee asking for an extension of the tax credits both residential and commercial through 2020. GEO's advocacy team is in constant contact with Committee staff on the issue.

We encourage you to contact your selected leaders to push for the support of the extension, but the real push may not come for a few months yet. GEO stated, "Certainly, there may come a time to generate a grassroots coordinated effort to protect and ask again for an extension of the tax credits, but it appears that moment is off into the future. As always, one cannot predict with certainty what Congress will or won’t do. That’s why GEO has a team guiding us on mounting advocacy campaigns at the appropriate time."

GEO thanked its members and everyone involved in the geothermal community for their interest and desire to help extend the tax credits.

**GEO Completes National Standard for GHP Personnel**

GEO also reports that a team of geothermal heat pump (GHP) industry partners has completed development of a National Certification Standard for Ground Source Heat Pump personnel. The standard itemizes personnel qualifications that apply to each separately identifiable task undertaken in the design, installation, commissioning, operation and maintenance of a geothermal heat pump (GHP) system.

The project was managed by GEO, in partnership with the International Ground Source Heat Pump Association at Oklahoma State University, and the Oak Ridge National Laboratory Building Technologies Research and Integration Center. The standard was developed by a consensus process that solicited input from a variety of industry stakeholders. It is based on industry best practices for system design and installation, to provide the highest level of system performance, quality and safety.

For more information about the project, methodology and final results, click [HERE](#).

**Wisconsin Retains Geothermal Incentives**

The Public Service Commission voted 2-1 to reaffirm its stance on making funding for solar projects contingent on funds being allocated to more cost-effective bioenergy projects. The commission placed a cap on renewable energy projects at $10 million a year, and decided that funding for solar and wind projects be limited to 25% of the dollars spent.

In addition, funding for solar and wind is contingent on Focus giving out funds to bioenergy projects, and few bioenergy projects have sought incentives this year. Funding remains for residential geothermal energy projects.

**Focus On Energy**

Is your company a Focus On Energy Trade Ally Partner? The program's monthly newsletter is a resource for updates on Focus on Energy and a way to stay current with rebates that may be available to your customers. To become a Trade Ally and to receive future newsletters, contact Focus on Energy at: [http://www.focusonenergy.com/Tradeally/](http://www.focusonenergy.com/Tradeally/).
Geothermal Myths Addressed

In a recent Energy Blog post on the National Geographic website, author and consultant Jay Egg suggested that there is a lot of misinformation out there about geothermal HVAC. In *Modern Geothermal HVAC Engineering and Control Applications*, Egg and his co-authors, Greg Cunniff and Carl Orio set out to bust many of these myths. Here is a sampling of the myths that they hear and their short-version responses to each....

**Myth 1:** Geothermal HVAC systems are not considered a renewable technology because they use electricity.

Fact: Geothermal HVAC systems use only one unit of electricity to move up to five units of cooling or heating from the earth to a building.

**Myth 2:** Photovoltaic and wind power are more favorable renewable technologies when compared to geothermal HVAC systems.

Fact: Geothermal HVAC systems remove four times more kilowatt-hours of consumption from the electrical grid per dollar spent than photovoltaic and wind power add to the electrical grid. Those other technologies can certainly play an important role, but geothermal HVAC is often the most cost effective way to reduce environmental impact of conditioning spaces.

**Myth 3:** Geothermal HVAC needs lots of yard or real estate in which to place the polyethylene piping earth loops.

Fact: Depending on the characteristics of the site, the earth loop may be buried vertically, meaning little above-ground surface is needed. Or, if there is an available aquifer that can be tapped into, only a few square feet of real estate are needed. Remember, the water is returned to the aquifer whence it came after passing over a heat exchanger, so it is not “used” or otherwise negatively impacted.

**Myth 4:** Geothermal HVAC heat pumps are noisy.

Fact: The systems run very quiet and there is no equipment outside to bother neighbors.

**Myth 5:** Geothermal systems eventually “wear out.”

Fact: Earth loops can last for generations. The heat-exchange equipment typically lasts decades, since it is protected indoors. When it does need to be replaced, the expense is much less than putting in an entire new geothermal system, since the loop or well is the most pricey to install. New technical guidelines eliminate the issue of thermal retention in the ground, so heat can be exchanged with it indefinitely. In the past, some improperly sized systems did overheat or overcool the ground over time, to the point that the system no longer had enough of a temperature gradient to function.

To read the entire post, click [HERE](#).
**Legislative Progress Being Made In Wisconsin**

In our last newsletter, we noted that WGA had registered recently in order to lobby our state legislators on the need to update the statutes to include geothermal in the renewable mix - whether through production or through energy savings. We are pleased to report that we are making progress!

One of the first steps in the legislative process is to look at what is happening in other states and without a doubt, the trend is favoring the inclusion of geothermal *energy savings* as part of the renewable energy portfolio.

We met recently with the chairman of the Assembly Energy Committee and talked about our industry and the need for a change. The discussion was positive and from that effort, we identified a legislator that we could approach with the idea of drafting a bill. Following another positive meeting, we are now in the process of having a bill drafted that would address our concerns.

It is really a matter of inclusion for the geothermal industry. We are not seeking any tax credits or other subsidies, simply a level playing field with other renewable technologies and the way to do that is to recognize energy savings from geothermal and not simply energy production.

We will keep you posted on further developments....

**Work Group - Heat Exchange Drill Holes**

The public hearing on the proposed rules related to the construction of geothermal drill holes will be held December 16 and 17 via teleconference from several areas of the state. WGA Board member Bruce Walker and Executive Director Jeff Beiriger both serve on the committee that worked with the Wisconsin Department of Natural Resources on the development of the rule. The rule is being created as a result of legislation passed in 2012 requiring the licensure of companies and individuals constructing vertical drill holes.

While most of the draft rules deal with the drilling and construction of the bore hole, there are a couple of areas that address the loops themselves:

- **Fusion welding connection for vertical heat exchange piping shall be done using socket fusion, saddle fusion or butt fusion type, in accordance with pipe manufacturer’s instructions. Joint surfaces shall be clean and moisture free.**
  
  ASTM D 2610, D 2683 and D2657

- **Only department approved heat exchanged fluids may be used in the piping placed in heat exchange drillholes.**

For more information about the hearings, contact the WGA office.
The Wisconsin Geothermal Association will hold its **2014 Annual Conference on February 19 and 20**. Once again, we will be holding the event at **The Osthoff Resort** in Elkhart Lake, one of only two premier AAA Four Diamond resorts in Wisconsin.

The program will begin around noon on Wednesday, February 19 and continue through mid-afternoon on Thursday, February 20. Once again, the **conference will feature two keynote speakers**, but we’ve made some **changes to our schedule - adding a fifth break-out session after lunch on Thursday and offering more advanced subjects**. The vendor showcase and **exhibit area will return and there will be plenty of time for networking**. The WGA will also conduct its annual meeting during the conference.

Located just east of Fond du Lac, the resort combines a casual atmosphere with elegant surroundings. The **all-suite resort** features many indoor and outdoor activities - including the Aspira Spa. The ballrooms and meeting rooms are well-appointed, the restaurants are first-class, and there are **plenty of places to continue conversations after the conference activities have concluded for the day**.

The WGA room block is **guaranteed through January 19** and rooms are available at the conference rate of Rooms are reserved for Tuesday (2/18) and Wednesday (2/19). Mention “Wisconsin Geothermal Association (WGA) to get our preferred rate.

- **Standard Room - $99; Two-Bedroom Suite - $139**

  A one-night deposit is charged when you reserve your room. You may cancel your reservation, but a modest service charge applies.

  **Make your reservations today by calling (855) 876-3399.**

  **Please keep us in mind for exhibits, sponsorships, and door prizes!**

  **Visit www.wisgeo.org for up to date event information.**
Wisconsin Geothermal Association
2014 Annual Conference

Wednesday/Thursday - February 19-20
The Osthoff Resort
Elkhart Lake, WI

Product Showcase & Exhibits
Educational Programs
Business Networking

Registration is open at www.wisgeo.org!

Call For Nominations
Are you interested in getting more involved in your association? WGA will be electing new Directors/Officers at our Annual Meeting, which takes place during the Conference, February 19-20 in Elkhart Lake. If you would be interested in learning more about Board service, please contact the WGA office at 888/782-6815. A form to nominate yourself or another member follows.
WGA Board of Directors
Call for Nominations

The Wisconsin Geothermal Association (WGA) will be holding elections for its board of directors during the association’s Annual Meeting on Wednesday, February 19, 2014. The Annual Meeting will be held in conjunction with the Wisconsin Geothermal Conference, February 19-20, 2014 at The Osthoff Resort in Elkhart Lake, WI.

The WGA Board of Directors consists of nine (9) directors that are elected to staggered three-year terms. Members may nominate themselves or nominate (with that person’s permission) a fellow member to help lead WGA into the future.

WGA board nominees must be members of the association in order to stand for election. It is helpful, but not required, that a nominee be present at the 2014 Wisconsin Geothermal Conference to say a few words in support of their nomination/election.

Questions? Contact Jeff Beiriger at (414) 331-2059 or jeff@assocmgmtservices.com.

Mail, fax, or email this form to: Wisconsin Geothermal Association
P.O. Box 833
Germantown, WI 53022
Email: jeff@assocmgmtservices.com
Fax: 888/287-4116

**NOMINATIONS MUST BE RECEIVED NO LATER THAN JANUARY 31, 2014.**

WGA will contact nominees to confirm their willingness to serve, for additional biographical information, and to review the election process.

| Nominee | __________________________________________ |
| Nominated By | __________________________________________ |
| Company | __________________________________________ |
| Address | __________________________________________ |
| City/State/Zip | __________________________________________ |
| Phone | __________________________________________ |
| Fax | __________________________________________ |
| Email | __________________________________________ |

*We look forward to hearing from you!*
Economy Looking Up, But Not Way Up....
Compared to this time five years ago, small business owners say that today's economy is better. That should be little surprise, as 2008 saw steep declines in economic activity. Today's numbers are hardly stellar, but by comparison, they do look better.

What is holding business back? Continued uncertainty about the economy, difficulty obtaining financing, confusion about health care reform, and frustration with gridlock in Washington, DC.

Interestingly, the responses from small business owners were considerably more optimistic for other small businesses than they were for their own. Projections for revenue and job growth were generally flat. The availability of financing, for their own business and for their customers, was a major factor in the flat projection.

Just one-in-five small-business owners say they have a clear understanding of how the new health care law will impact their firms, they are delaying many business decisions.

Source: National Small Business Association

HVAC Codes
Looking for the latest codes related to HVAC installations including radiant heating and dual-use water heaters? You can find the current codes on the DSPS website at:

SPS 322 (HERE) deals with Energy Efficiency
SPS 323 (HERE) deals with HVAC Equipment

OSHA's Top 10 Violations For FY 2013

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<tr>
<th>Hazard, # Citations</th>
<th># Citations</th>
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<tbody>
<tr>
<td>1. Fall Protection: 8,241</td>
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<tr>
<td>2. Hazard Communication: 6,156</td>
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<tr>
<td>3. Scaffolding: 5,423</td>
<td></td>
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<tr>
<td>4. Respiratory protection: 3,879</td>
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<tr>
<td>5. Electrical, wiring methods: 3,452</td>
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<tr>
<td>6. Powered industrial trucks: 3,340</td>
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<tr>
<td>7. Ladders: 3,311</td>
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<tr>
<td>8. Lockout/tagout: 3,254</td>
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<tr>
<td>9. Electrical, general requirements: 2,745, and</td>
<td></td>
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By The Numbers
According to a Rasmussen survey done in October, respondents were evenly divided as to who can do a better job running the country, with both the current Congress and zombies receiving 38 percent of the vote.

In their November 13 Short-Term Energy Outlook, the Energy Institute of America (EIA) says that it expects natural gas prices, which averaged $2.75 per million BTU in 2012 to increase by 34 percent to $3.68 per million BTU in 2013 and to increase by another 4 percent in 2014 to $3.84 per million BTU.

If the cost of other items had risen as much as the cost of health care over the past 50 years, you could expect to pay $58.00 for a dozen eggs, $101.00 for a gallon of milk, $21.76 for a gallon of gas, and $136,700.00 for a family sedan.
Shipments of gas warm air furnaces increased 19.3 percent, to 1,583,426 units. Shipments of oil warm air furnaces decreased 9.6 percent to 15,983. Shipments of central air conditioners increased 6.1 percent, to 3,280,528 units and heat pump shipments increased 16 percent, to 1,480,202 units.

As many as 20,000 letters will be sent from the IRS asking for more information from small businesses. The targeted businesses will likely be those who have a much higher percentage of credit card receipts compared to cash receipts. While not an audit, additional taxes and penalties can be imposed if an explanation is not provided to the IRS within 30 days of the receipt of the letter.

The number of workplace fatalities is down from a year ago, dropping from 4,693 to 4,383. The rate of workplace fatalities is 3.2 per 100,000 full-time workers.

Wisconsin ranks 23rd among the states for energy efficiency, trailing Illinois (10), Minnesota (11), Iowa (Tied - 12), and Michigan (Tied - 12).

Geo Ride

Mark your calendar!
Better Buildings: Better Business Conference® Wisconsin

March 5–7, 2014, Kalahari Resort, Wisconsin Dells

CAPTURE THE INFORMATION YOU NEED FASTER at the Wisconsin Better Buildings: Better Business Conference. Expand your residential building knowledge, produce a better product, enhance customer relations, expand your business opportunities and gain various perspectives from multiple disciplines within the residential building community. Join us March 5–7, 2014.

WHAT CREDITS ARE AVAILABLE?
AIA | BPI | GBCI | IACET | NAHB | NARI more

WHO’S THE KEYNOTE?
Comedian and energy efficiency expert Bill LeBlanc

HOW MANY SESSIONS WILL TAKE PLACE?
52 sessions and 50 expert presenters

CAN’T GET ENOUGH?
Join us in ILLINOIS Dec. 10–11, 2013, too.

REGISTER NOW
Deadline Dec. 12, 2013
GET THE EARLY BIRD RATE PLUS A CHANCE TO WIN two free nights at the Kalahari (valued at $500).

NEW! HANDS-ON EXPERIENCE
Get your hands dirty. Help construct a working model home.
"Coming together is a beginning; keeping together is progress; working together is success."
Henry Ford

"A successful man is one who can lay a firm foundation with the bricks others have thrown at him."
David Brinkley

J. Paul Getty

"If at first you don't succeed, try, try again. Then quit. There's no point in being a damn fool about it."
W.C. Fields

Many Thanks to Our Annual Sponsors!
**2013-2014 WGA Board of Directors**

**Mark Flock – President** (Director Term Ends 2016)
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