Events At A Glance

January 16, 2024: 10 Week CGD Course Online
January 17, 2024: California Geo Underground Learning Session
January 22-24, 2024: Online AI Training with Ewbank Geo Testing
January 23, 2024 HRAI Online AI Course
January 26, 2024: IGSHPA Dig Deeper Webinar with U.S. Dept. of Energy
February 14, 2024: IGSHPA Town Hall with Steve Kavanaugh
February 28-29, 2024: HRAI CRD Course

STAY UP TO DATE ON OUR UPCOMING EVENTS WITH OUR EVENTS PAGE ON OUR WEBSITE: https://igshpa.org/calendar/

Message from the Executive Director

Happy New Year! The New Year is already starting off with a lot of activity, some of which was spurred by the excitement from the 2023 annual conference. With 30% more attendees than 2022 (the 2022 conference
included attendees for the Research Conference) and double the 2021 attendance, there was a lot of “buzz” in the workshops and on the exhibit hall floor of the Geothermal Pavilion. Attendees in 2023 were from Australia, Canada, Norway, Sweden, the United Kingdom, and the United States. We also had a much more diverse group with new attendees from utilities, government, standards and codes organizations, and more. Watch your Inbox and social media for details on the next conference in just over a year, March 11-13, 2025, in Champaign, Illinois.

Moving into 2024, the momentum at IGSHPA is increasing exponentially. If you were not able to attend the AGM (Annual General Meeting), you may not be aware of our two new board members, Boyd Lee of CK Energy and Joe Parsons of Climate Control Group. We also covered the new 2024 membership program, provided updates on training, updates on the ANSI/CSA/IGSHPA C448 bi-national design and installation standard, and introduced new IGSHPA staff (0 in 2020; 1 for most of 2021; 2 in 2022; 6 at the end of 2023). With additional staff and funding secured in 2023 for new training and industry support projects, you will see a lot of activity this year that will enhance member benefits and help increase the growth of geothermal systems.

Sincerely,

Jeff Hammond
Executive Director
International Ground Source Heat Pump Association
jeff@igshpa.org

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Meet The IGSHPA Staff

2023 was an incredible year for IGSHPA! Thanks to member funding we have been able to add 4 new staff to the IGSHPA team to help keep our organization growing and moving forward. We are excited for 2024 and to share with you all of the projects we are working on for our members and the geothermal industry!
The IGSHPA 2024 Holiday Schedule

IGSHPA Offices will be closed:

New Year’s Day- Monday, January 1, 2024
Good Friday- Friday, March 29, 2024
Memorial Day- Monday, May 27, 2024
Juneteenth- Wednesday, June 19, 2024
Independence Day- Thursday, July 4, 2024
Labor Day- Monday, September 2, 2024
Thanksgiving Day & Day After- Thursday-Friday, November 28 & 29, 2024
Christmas Day- Wednesday, December 25, 2024
Canada & the U.S. Report on Grid Impact of GSHPs

In November 2023, two impactful reports were produced that confirmed the advantages of GSHPs (Ground Source Heat Pumps – also called Geothermal Heat Pumps) to the electric grid in both Canada and the U.S. In fact, the U.S. report prepared for the D.O.E. by experts at Oak Ridge National Laboratory and the National Renewable Energy Laboratory was released during IGSHPA’s annual conference on December 6, 2023! If you haven’t downloaded these reports, check out the links below, as well as a report from 2020, prepared for HRAI (Heating, Refrigeration, and Air Conditioning Institute of Canada). The conclusions are pretty clear … GSHPs must be part of decarbonization / electrification efforts in managing the electric grid for sustainability.

- Grid Cost and Total Emissions Reductions Through Mass Deployment of Geothermal Heat pumps for Building Heating and Cooling Electrification in
Quotes on the EERE (Energy Efficiency & Renewable Energy) website, part of the U.S. Department of Energy, indicate the importance of GSHPs as a solution to decarbonization while reducing grid transmission needs and saving energy. “Geothermal heat pumps offer enormous value for the nation’s energy future,” said Alejandro Moreno, Associate Principal Deputy Assistant Secretary for Energy Efficiency and Renewable Energy. “This report confirms that geothermal heat pumps are a ready-made strategy for decarbonizing our buildings while reducing the need for new electricity generation and transmission, and bringing energy savings to Americans nationwide—all while creating U.S. jobs.”

As an industry, this is an opportunity to utilize these reports from highly respected organizations to help educate consumers, businesses, designers, and companies that are already in the HVAC and excavation/drilling business about preparing for the future of how we heat and cool our homes and buildings.

SAVE THE DATE!!

2025 IGSHPA Annual Conference
IGSHPA & GAOI
Annual Conference
Champaign, IL March 11-13
2025
Breaking New Ground

More information coming soon!
On November 17, the IRS released proposed regulations that would affect commercial geothermal heating and cooling systems and potentially impede industry growth. The rules as written would prohibit shared ownership of commercial geothermal systems. If one taxpayer owns the ground heat exchanger and another owns the heat pumps, neither party can claim the Section 48 investment tax credit.

This rule, if made final, would prohibit a utility company from taking a credit on a thermal energy network unless they also owned their customers’ heat pumps. And it would preclude viable third-party ownership models of the sort that the solar industry used to drive residential solar adoption. GeoExchange is submitting comments urging the IRS to revise its proposed rules to support rather than hinder growth in the geothermal sector. We’ve drafted a template comment letter for industry stakeholders to make their voices heard, too. If your company is interested in supporting this effort, please contact GeoExchange President Ryan Dougherty (ryan@geoexchange.org) for a copy of the template and instructions on how to complete and submit it before the January 22 deadline.
IGSHPA members in good standing now have access to social media marketing materials! IGSHPA has been working MediaMark Spotlight to create content for member marketing and outreach efforts. We will provide links to social media posts, blogs, graphics, and other valuable marketing collateral to help promote geothermal systems and ground source heat pumps. As an active IGSHPA member, you can co-brand with IGSHPA and use this content on your social media platforms. **Any changes must be approved in writing by IGSHPA’s Marketing Manager. Please request approval for changes to Sally Stephens at sally@igshpa.org.**

As more content becomes available, it will be posted in the Member Portal Resources, typically at least monthly.
As IGSHPA continues to grow and provide more benefits to members, we occasionally need to review our membership program to ensure that it is fair to all members, it is positioned to help the organization and the GSHP industry grow, and it is easy to understand. We have spent the last two years discussing the current membership program with members and the IGSHPA board of directors. We are excited to present a new membership program, effective January 1, 2024, that will put IGSHPA on a new path for growth and provide members with many more choices to participate. It will also help correct some of the confusion with membership and certification, and provide discounts for members, as well as additional incentives. IGSHPA's last membership cost increase was in 2016. This new program will have very little financial impact on members but will provide a much better program for IGSHPA and members long-term.
<table>
<thead>
<tr>
<th>Business Organizations</th>
<th>Directory Listing Only (no membership or votes)</th>
<th>IGSHPA Membership</th>
<th>IGSHPA Benefactor</th>
</tr>
</thead>
</table>
| Contractors - HVAC, GHEX, General, other contractors | $200 / year | $450 / year  
- 2 votes  
- Up to 3 members  
- Recert. discount¹  
- IGSHPA verified check¹  
- $200 for add’l 10 mbps | $800 / year  
IGSHPA Membership Plus:  
- Benefactor designation  
- Dedicated web page & logo on IGSHPA website  
- Conference perks¹ |
| Distributors, Architect/Engineer Firms, Consultants, other industry-supporting businesses | $200 / year | $650 / year  
- 2 votes  
- Up to 5 members  
- Recert. discount¹  
- $200 for add’l 10 mbps | $1300 / year  
IGSHPA Membership Plus:  
- Benefactor designation  
- Dedicated web page & logo on IGSHPA website  
- Conference perks¹ |
| Small Manufacturers (100 employees or less) | | $750 / year  
- 3 votes  
- Up to 5 members  
- Recert. discount¹  
- $200 for add’l 10 mbps | $1500 / year  
IGSHPA Membership Plus:  
- Benefactor designation  
- Dedicated web page & logo on IGSHPA website  
- Conference perks¹ |
| Large Manufacturers (>100 employees) | | $1750 / year  
- 4 votes  
- Up to 5 members  
- $200 for add’l 10 mbps  
- Recert. discount¹ | $2750 / year  
IGSHPA Membership Plus:  
- Benefactor designation  
- Dedicated web page & logo on IGSHPA website  
- Conference perks¹ |

<table>
<thead>
<tr>
<th>Community Organizations</th>
<th>IGSHPA Membership</th>
</tr>
</thead>
</table>
| Trade Schools, Community Colleges, University Depts, Government, State/Provincial Associations, non-profits | $150 / year  
- 1 vote  
- 2 members  
- Discounted annual certification renewal¹ |

NOTES:  
1. Members qualify for discounted certification renewals (e.g., $75/year for Accredited Installer instead of $225/year), discounts on publications, conference registration, conference exhibitor pricing, standards, and other IGSHPA materials.  
2. If IGSHPA member has certified individuals employed, business listing will include an “IGSHPA verified” checkmark designation as part of the listing.  
3. Conference perks include advance notice on sponsorships, exhibit space, speaker opportunities, and other “early bird” opportunities.
Below is a summary of changes for 2024. You can find all of the details in the new membership brochure.

- Individual IGSHPA membership has stayed the same as 2016 at $125 per year.
- Certification renewal for members for AI (Accredited Installer), CGI (Certified Geothermal Inspector), and CRD (Certified Residential Designer) decreased from $100/year to $75/year. Overall cost for membership plus certification renewal increased by $50/year for members. For non-members, the overall
cost for membership plus certification renewal increased by $100 per year. Note that CGD (Certified GeoExchange Designer) certification is administered by AEE (Association of Energy Engineers) and therefore certification renewal and AEE membership has not changed.

- HVAC, GHEX, and other contractor memberships increased by $30 per year.
- A new directory only listing (no membership or voting) has been added for contractors, distributors, and MEP firms at $200 per year. This is a new level to encourage more industry participation and help customers find GSHP businesses in the online directory.
- Utility memberships have been broken out separately (previously part of manufacturer memberships) as distribution co-operatives, municipal utilities, G & T co-operative utilities, Investor-owned utilities, and (Canadian) Crown corps.
- Distributors and MEP firms memberships increased by $230 per year. This is part of our efforts for membership fairness, better leveling out the membership types.
- A new student/retired individual membership has been added.
- A new community organizations membership (trade schools, community colleges, university departments, government, and state provincial associations) has been added.

If you have any questions at all, please contact us at info@igshpa.org, 1-800-626-4747, or 1-217-212-2112. Thank you for your support of IGSHPA!

January Dig Deeper

Don't forget to join us January 26, 2024- from 10:30 am - 11:30 am CST. This month, speakers Jeff Winick & Sean Porse of U.S. Department of Energy Geothermal Technologies Office will go over the **GHP Impact Analysis**.

In Fiscal Year 2022, with GTO support, ORNL and NREL conducted a modeling assessment of the grid impacts resulting from the mass deployment of GHPs. Modeled changes in end use load profiles for the US building stock...
and their impacts on the bulk power system were analyzed under various carbon policy, electrification, and sensitivity scenarios using capacity expansion modeling (ReEDS) and production cost modeling (PLEXOS). The results demonstrate GHPs’ significant aggregate value to a decarbonizing grid through reduced infrastructure requirements, reduced emissions, and improved grid efficiency. The results have important implications for energy and technology investments in a rapidly decarbonizing energy economy.

Go here to register.

**February Town Hall**

Be sure to join us live on Teams February 14th at 10:30 CT. We will be hearing from Steve Kavanaugh of the University of Alabama/Energy Information Service who will be presenting: **GSHP Cost Containment: Low Hanging Fruit Not in the Ground Loop**

For four decades the mantra of ground source heat pump (GSHP) advocates has been, “we need to get the cost of the loop down”. This has proved largely ineffective due to three primary reasons:

1. Installing quality ground loops is extremely difficult work that requires significant investment in equipment and employees (who are difficult to find due salaries, working conditions, and frequent travel).

2. The primary resistance to heat flow to and from the ground is the ground itself. High technology tubing arrangements, super grouts, and flow turbulatators will reduce total length far less than predicted.
Surveys conducted between 1995 and 2012 indicate the HVAC cost of GSHPs increased 11% per year and was 74% of the system costs while the ground loop costs rose 3% per year and was 26% of total cost in 2012. This presentation will provide examples of actual itemized GSHP costs and resulting performance data that indicate simplifying HVAC systems reduce costs, improve performance, expand the market and thus attract more quality ground loop contractors.

Steve Kavanaugh is Professor Emeritus from the University of Alabama and Owner, Energy Information Services. He is the author of *HVAC Simplified* (ASHRAE, 2006), primary author of *Geothermal Heating and Cooling* (ASHRAE, 2014) and *Ground Source Heat Pumps* (ASHRAE, 1997). The 2006 HVAC book and 1997 GSHP book are among the top five all-time best-selling books published by ASHRAE. He is a Fellow of ASHRAE and ASME. He has lived in three different GSHP homes beginning in 1960 (as a child).

Dr. Kavanaugh has presented over 175 GSHP and HVAC short courses to over 5,000 attendees. He is publisher of *Outside the Loop, An Alternative Publication for Skeptics of Conventional HVAC & GSHP Wisdom* (www.geokiss.com). Several free HVAC and GSHP software tools are available from this site. He was twice Board Chair of Habitat of Humanity Tuscaloosa and was co-construction supervisor for 5 homes.

Register for this Town Hall here.

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**Upcoming Events**

**January 16- March 19, 2024- 10 Week Certified GeoExchange Designer Course- Online with Ed Lohrenz:** Tuesday lunchtime for 10 weeks – 12:00 – 1:30 pm EST LIVE, ONLINE & INTERACTIVE: Cost: USD $1,850 – click here to register. 10 live online presentations, PDFs of C-448 Standard and Design of Ground Source Heat Pump Systems and PDF of presentation slides. Cost: USD $1,600 – click here to register. 10 live online presentations and PDF of presentation slides.

**January 17, 2024- California Geo Underground Learning Session:** On January 17th during the Noon Hour (PST) California Geo's next feature
for THE UNDERGROUND will be a panel called A Contractors’ Roundtable. The panel’s three geo veterans are Jeff Brower, Mark Morelli, and Kent Penning. Each has operated a geo-focused firm in northern California.

You’re going to get an entire hour to hear the ups and downs of this business from those who’ve taken the ride. This program is aimed at contractors, including those who wish to consider adding geo heat pumps to their existing repertoire. You’ve got a chance to learn from three pros with decades of successful geo heat pump contracting between them. Whether it’s your curiosity or consideration about adding a geo side to your contracting business, this session is a must as you consider your own strategy. Geo expansion is a big part of the HVAC contracting future and we’d like you to help accelerate it.

As an added inducement to reach a wider industry audience, this session will be **FREE** when you register. [Register here.]

**January 22-24, 2024- Online Accredited Installer Training with Ewbank Testing:** This Accredited Installer Course will be taught online over the course of three days. Cost includes all materials (digital) needed for course, 3 years of IGSHPA membership & AI Certification. [Go here to register.]

**January 23-25, 2024- HRAI Online IGSHPA Accredited Installer Course:** The IGSHPA Geothermal Accredited Installer Course includes topics such as: Design and Material Options; System Layout; Pipe Joining Techniques – Hands-on for butt, socket, saddle and electro fusion; Trenching/Drilling Processes; Air and Debris Purging; Pressure Drop Calculations; Pump and Fluid Selection; Thermal Conductivity; Start-up, Performance Checking & Troubleshooting. Upon successful completion of the corresponding exam, IGSHPA Accredited Installer certification will be provided. [Get more information & register here.]

**January 26, 2024- IGSHPA Dig Deeper Webinar with U.S. Dept. of Energy:** 10:30 am - 11:30 am CST  Speakers Jeff Winick & Sean Porse of U.S. Department of Energy Geothermal Technologies Office will go over the GHP Impact Analysis. In Fiscal Year 2022, with GTO support, ORNL and NREL conducted a modeling assessment of the grid impacts resulting from the mass deployment of GHPs. Modeled changes in end use load profiles for the US building stock and their impacts on the bulk power system were analyzed under various carbon policy, electrification, and sensitivity scenarios using capacity expansion modeling (ReEDS) and production cost modeling.
The results demonstrate GHPs’ significant aggregate value to a decarbonizing grid through reduced infrastructure requirements, reduced emissions, and improved grid efficiency. The results have important implications for energy and technology investments in a rapidly decarbonizing energy economy. Go here to register.

February 26-28, 2024- 2024 Iowa Geothermal Association Conference: What’s new and different this year? IGSHPA certification courses. These courses focused on installers and service technicians result in attendees receiving recognition and certification which are universally recognized as providing assurances that your geothermal project meets the top industry standards. These classes are only open to current members of the Iowa Geothermal Association.

Separate tracks for technicians and non-technicians. If you work in the field, you have the opportunity to gain valuable knowledge AND CEU credits from some of the best in the industry. For those non-technicians, this conference will help you better sell geothermal to your clients and market the benefits to both homeowners and commercial interests. Information & registration here.

February 28-29, 2024- IGSHPA Certified Residential Geothermal Designer Course Online with HRAI: Learn how to properly design a residential system, starting with the benefits and types of ground source heat pumps. Attendees will also learn about the design process, energy loads and requirements, and how to calculate loads; how to select mechanical systems; site, geology and soil conditions; ground heat exchanger design; pumping, interior piping and header design; economics of the design; and calculate a sample problem. Upon successful completion of the corresponding exam, an IGSHPA Certified Residential Geothermal Designer certification will be issued. For more information & to register go here.

Why Should My Company Join as an IGSHPA Business Member?

On the IGSHPA website, there is a list of benefits for business memberships, including a listing in the directory, voting rights for board elections and changes to the organization’s structure, discounts on conferences and
publications, access to the member-only website, and more. However, IGSHPA membership for your organization is much more than the listed benefits. As our industry grows (and it appears to be on a strong trajectory!), consistency of message, quality design and installation, and unity as an industry is more important than ever. IGSHPA has made good progress in the past 3+ years in its transition to an independent non-profit, but membership funding is a large portion of IGSHPA’s revenue. As membership expands, IGSHPA’s ability to add membership benefits via additional programs, hiring of staff, and participating in more industry events grows exponentially.

IGSHPA’s mailing list includes over 6000 e-mail addresses. We have 130 business members, and we are very thankful for the support! Imagine what we could do with 1000 members! Plus, imagine how many additional hits/leads your companies would receive from being part of a much bigger directory. Keep in mind that HVAC contractors and distributors may have advertising co-op funds available from heat pump manufacturers. We are aware of advertising cooperative funds available to offset IGSHPA membership from ClimateMaster and Enertech; other manufacturers may offer similar incentives, as well.

For more information, check out our online business/corporate member application form or contact us at info@igshpa.org.

Our mailing address is:
International Ground Source Heat Pump Association
312 S 4th St Ste 100
Springfield, IL 62701-1469