

CT Geothermal Chapter of IGSHPA

2012 Meeting Minutes

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Minutes

Connecticut Geothermal Association

January 3, 2012 6:30 PM

Chuck's Steakhouse Rocky Hill, CT

Guy called the meeting to order at 7:30 PM after dinner. Those present were Guy Wanegar, Ray Sima, Ralph Brusino, Stephen Wierzbicki, John Sima, Peter Tavino, Jane Bugbee, Scott Beaulieu, David Corcoran, Jim Sansoucy, Earl Semmelrock, Ben McDaniel and Michael Sotak.

John began with the Vice President report. Digging deeper into the ACCA QA standard and qualifications, he found that the only NATE certification specific to the geothermal industry was for the geothermal loop installer. The test is the same as the test for the IGSHPA accredited installer. He has reached out to ACCA to see if IGSHPA accreditation will suffice as NATE certification for the QA program. Mark Foley will accept it for the QIV program at CL&P.

Additionally, John and Guy will be attending the Renewable Energy and Efficiency Business Association (REEBA) meeting on Thursday from 4:30 to 7:30 at the Rocky Hill Marriott. There are a lot of wind and solar folks in this group which has a strong lobbying presence in the state. Bill Colonis at CEFIA supports our group representing the industry there, as he reports the industry is very under-represented in the organization.

One of John's customers wrote a letter to Dan Esty regarding her positive experience with geothermal. There is still no news on aligning with NEPGA, as they have lost some momentum with the resignation of their president.

Jane's only matter of business was to report that she updated the constitution and bylaws to reflect the name Connecticut Geothermal Association and removed the requirement for members to maintain membership with IGSHPA. She will email to Peter to post on the website.

Scott reported that he had re-filed all our paperwork with the secretary of state to reflect our new name. He also updated our EIN and bank account. He reported a starting balance of \$3,978.85 with expenditures of \$75 for the past three speakers meals. The current balance is \$3,903.85. Because it is so difficult to file any paperwork with the state and more likely than not requires a trip to Hartford, he recommended having the group set up a PO Box in central CT, perhaps in Rocky Hill where we meet. Right now we use Peter Tavino's PO Box as our mailing address. All were in favor of looking into this. Peter asked if Scott could provide a year to date treasurers report; Scott will e-mail it to the group, but in the meantime quickly went through the checkbook.

Ben started with committee head reports and discussed the brochure. He did have 250 printed, which we will use temporarily but they do say IGSHPA on them. He will revise to remove IGSHPA and send to the group (through Guy) to request final revisions and edits.

Ralph discussed the agreement for free membership in exchange for free advertisement with World Wide Geothermal Resources magazine. They are late in getting their most recent issue out due to the holidays. He also made contact with two state representatives – Dan Carter of the 2nd district and Geoff Luxenberg of the 12th district – who are interested in attending potentially our February meeting.

Peter had no standards related activity to report.

Guy then brought up a phone call he received from GEO reaching out to our association to become an affiliate member. We would be able to post information to their website and vice versa. GEO is what used to be GeoExchange organization which underwent major internal changes last year and has massive manufacturer backing. They are gaining in size and strength very quickly and are working to secure the 30% tax credit for geothermal through 2016. There was concern we'd have to pay membership as we are not a non-profit. The group agreed unanimously to proceed with executing the relationship if at no cost to us; otherwise, Guy will report back next meeting with the cost and membership agreement for the group to vote upon.

The need for a special committee to address membership was brought up as old business from last meeting. While Dane agreed to help with brochures and print materials, we still need someone to spearhead the effort. Jim Sansoucy volunteered.

The next old business matter was membership to IGSHPA as a group. Jane argued that there was no value in the fees to the group, but Earl pointed out that although GEO is becoming the main industry trade group, IGSHPA still governs the training so we should not rule them out just yet. For now the group is unaligned with IGSHPA with the exception of the majority of member's personal memberships.

Insurance remains an outstanding old business matter. Scott has some quotes, and he is going to work with Larry to see what kind of insurance (professional liability, errors & omissions, general liability, etc.) the well drillers association carries and he and Guy will shop around for quotes on that.

Ray presented an agenda from a previous technical seminar held by the Well Drillers. He is going to price our seminar, scheduled for April 7th, at \$250 per booth with two free meal tickets. The cost to members will be \$20 and the cost to non-members will be \$35 with the option to register at the door. He needs speakers within the next two weeks. Guy is going to try to get a representative from GEO and Steve Wierzbicki is reaching out to Peter Harding of Home Energy Technologies. Additionally, there will be recertification for fusion, which leaves us with a back up plan for a speaker if the two we reached out to cannot make it. Peter Tavino also plans to reach out to Brian Hayden of HeatSpring to have a booth.

Next was elections. No one new wished to run for any officer positions or nominate anyone for an officer position. The current officers agreed to hold

their positions for another year. The group unanimously accepted this slate of officers for 2012.

Before voting on committee heads, we agreed on a restructuring of the committees as some of our existing committees are duplicating efforts. The three resulting committees and elected committee heads were: Membership – Jim SanSoucy, Public Relations and Community Outreach – Ben McDaniel with the support of Ralph Bruscano and Standards & Webmaster, Peter Tavino.

Ralph then motioned to adjourn the meeting, Guy seconded and all were in favor. Guy adjourned the meeting at 8:58 PM.

Minutes
Connecticut Geothermal Association
February 8, 2012 6:30 PM
Chuck's Steakhouse Rocky Hill, CT

Guy called the meeting to order at 7:30 PM after dinner. Those present were Guy Wanegar, Phil Robert, Mark Henderson, Terry Hewitt, Ray Sima, David Klecan, David Ragaini, Stephen Wierzbicki, John Sima III, John Sima IV, Rob Sima, Rich Vocke, Tyler Wragg, Rob Loffos, John Pouliot, Larry Sima, Matt Sima, Bob, Scott Beaulieu, Jane Bugbee, Dean Demague, Bill Prebeck and Tony Silverio.

Guy introduced the guest speaker, David Klecan from Isco. David showed a video on geothermal vault fabrication and installation and answered questions related to HDPE pipe, fittings and fusion techniques.

Guy reported that the membership with GEO was \$450 annually unless we were a non-profit trade association, then the membership would be free. The group did not vote on paying the for-profit membership fee as the future state of profit/non-profit was still debatable. He also mentioned that as GEO grows, they may take on a state chapter structure. Additionally, the group now has an official address in Rocky Hill at PO Box 06067.

John reported on the REEBA meeting which was focused primarily on solar technologies. The geothermal industry; however, was named as a renewable industry to participate in REEBA. He brought up the Connecticut Power and Energy Society (CPES) March 14th meeting at the Cromwell Courtyard Marriott. There is a \$500 exhibitor fee that the group voted unanimously in favor of spending. CGA will participate, as it is critical for the geothermal industry to have a voice. He also brought up the GeoOutlook article on the Michigan geothermal utility where the city drills wells and rents the use of said wells to homeowners interested in using geothermal heating and cooling.

Jane had nothing new to report.

Scott presented the following half-fiscal year mark treasury report:

Not available at this time.

No committee heads were present, so Guy moved to old business.

Ray passed around the flyer for the spring workshop. He mentioned already four vendors were signed up; FW Webb and Company, Morris Industries, Blake Equipment and Phoenix Supply Company. Dave Raigaini will be there providing recertification on HDPE fusion. John will send invites to the CT ASHRAE group and Guy will reach out to CT AEE. Dave brought up the next old business topic: insurance.

Scott presented the insurance quote for the group as a non-profit. While a \$1M general liability policy alone would be close to \$1,000, we were quoted for \$609 if we include directors and officers insurance for \$755. The group discussed and agreed the directors and officers insurance was needed in addition to the general liability. Steve motioned to accept the quotes, Jane seconded and all were in favor. The group will need to vote on reorganizing to a non-profit next meeting in order to accept the quotes.

John and Tony then discussed the building official code trainings. Tony is going to work on scheduling the first session.

Guy mentioned the GHPsRus survey, a federal grant/initiative and recommended every one participate if they have the time. Information can be found here:<http://ghpsrus.com>. The results will be presented early 2013 and will benefit all of us as an industry.

Additionally, there are several upcoming events. Please check the calendar for more information at: http://geothermalconnecticut.org/calendar_of_events.htm

The events are

1. The 2012 New Construction program roll-out. This even takes place on February 15th from 8:30-11:30 at the Northeast Utilities Auditorium: 107 Selden St. Berlin, CT. Register at www.cl-p.com/register
2. CT chapter of the Association of Energy Engineers annual utility update breakfast at 8:00 am on February 16th at the Northeast Utilities Auditorium: 107 Selden St. Berlin, CT. Register by email (\$25/person fee) @ jenn26@cox.net.
3. Regular meeting of the Association of Energy Engineers. February 21 at 5PM at the Crowne Plaza Cromwell. Nuclear and Sustainable Energy focus. Contact dave@emendetechn.com
4. The 2012 HVAC Program Roll out February 23 9:00am – 12:00 pm at the Crowne Plaza in Cromwell. Register at www.cl-p.com/register

The group agreed to vote on non-profit status next regular meeting so insurance can be purchased prior to the spring workshop. Next regular meeting will be rountable/networking style.

John motioned to adjourn the meeting; Guy seconded.

Minutes

Minutes

Connecticut Geothermal Association

March 6, 2012 6:30 PM

Chuck's Steakhouse Rocky Hill, CT

Guy called the meeting to order at 7:38 PM after dinner. Those present Guy Wanegar, John Sima III, John Sima IV, Mark Foley, Tony Silverio, Herb Davidson, Dave Ragaini, David Corcoran, Bruce Nowak, Ralph Bruscano, Phil Robert, Dough Rothmann, Ray Sima, Bob Polmatier, Mark Henderson, Scot Rogers, Earl Semmelrock, Ben Uscilla, Jane Bugbee, Peter Tavino, Tony Iaconiello, Dane Weber, Scott Beaulieu and Rich Vocke.

Guy discussed several meetings that had taken place since last month. The AEE CT breakfast at Northeast Utilities was of special interest because there were representatives from the municipality power companies discussing their local rebates. The AC and HVAC rebates were mostly the same, but any project in their territory may be submitted to them based on the incremental improvement of the increase in efficiency level of the equipment. There was also an HVAC roll-out and a residential new construction roll-out. The geothermal rebates are staying the same from the CT Energy Efficiency Fund - \$500/ton up to 3 tons. The insulation levels (R-30 ceiling/roof; R-19 basement; R-13 walls; R-30 floor over garage) and infiltration reduction (1cfm₅₀/sqft) remain the same in the retrofit program. In the new construction program, in order to comply with Energy Star version 3.0 for new homes, the ACCA QI process must be followed. Consequently, 25% of your company's technicians must be NATE certified.

At CEFIA's last meeting, they outlined three long term goals:

1. To become the most energy efficient state in the nation
2. To scale up deployment of renewables
3. Support the infrastructure of renewable through tech schools and training programs

As an organization, we need to attend these meetings to make sure geothermal is recognized by CEFIA as a renewable technology as stated by the Department of Energy. It seems that the future of CEFIA programs will shift to financing and away from rebates. In fact, a consultant named Dave Carey has been hired by CEFIA and reached out to the group regarding how we would like to see the technology marketed and financed. Guy will forward to the group and compile answers.

Saturday several of the group met at Chucks where Peter Tavino graciously gave a review on the IGSHPA exam and retested 10 students at cost so they could receive NATE certification. The event was a success, and if there are enough students interested, Peter would be willing to host another training.

Peter mentioned that at the REEBA annual meeting, the group met to review the bylaws. One of the revisions struck geothermal from the original document calling out renewable technologies. Although the document specified "not limited to," so geothermal would technically still be included, Peter opposed the vote. The group discussed, and he confirmed he was a dues paying member of REEBA, and the group voted to keep the word geothermal in the description of renewable technologies. This is the kind of event we need to have a presence at. AEE CT is another, and Guy suggested that at least one of us attend all of their regular meetings on the third Tuesday of each month.

Jane reported next that 41% of Energy Star new homes built in Connecticut that participated in the incentive program were geothermal homes. Of those same homes,

only 3% had solar PV. She suggested this be included in our marketing materials to prove that geothermal is a tried and true technology, here to stay.

John reported next to mention he was attending the CT ASHRAE meeting on Thursday in Hartford at City Steam Brewery. The topic is direct exchange. Jane will also attend in lieu of Peter, as he is traveling to Florida.

Scott reported on three new members and the treasurer's report. We currently have a balance of \$3,037.85 and our expenses last month were on the business insurance.

The group talked about the income from Saturday's training and the topic of CEU's was brought up. The 19th and 20th of this month, Blake Equipment will be hosting an advanced geothermal training for \$349 which provides 16 NATE credits. To register or request more information, please email Bob.Klybas@bghusa.com or call (860) 286-4244.

We had voted to participate in the CT Power and Energy Society's event on March 14th at the Courtyard Marriott in Cromwell. John Sima graciously agreed to attend and represent the group.

Ralph reported that Ben Northcott from the Colorado Geothermal Heat Pump Association had requested survey information from the group that he is going to pass on to the membership. Additionally, he will send another press release to the local papers regarding our spring workshop.

Peter began his report and suggested we invite Dave Carey to the May meeting. Since he is an out of state consultant, perhaps another representative from CEFIA could come in lieu of him. He asked Mark to speak regarding the 2012 CEEF rebates, and Mark confirmed Guy's report of status-quo from last year.

Ray said we had six booths already, and surprisingly only 1 supplier. He will look into CEU's, but asked if anyone had existing contacts to work with. Peter will contact IGSHPA to see if they will support the event.

Jane motioned to table the vote on becoming a nonprofit until a later date in time. Insurance for the group was purchased based on our for profit filing status, and needs to be in place for the workshop. Guy pointed out when we work with GEO to develop a partnership, we can revisit our filing status then. John seconded the motion, and all were unanimously in favor. This topic will be tabled indefinitely.

Additionally, other outstanding old business from last month's meeting was our logo. It is similar to the logo of CT Wells (not currently a member) and there is concern from the membership about brand identity issues or market confusion. Jane motioned to vote, and Dave seconded. All were in favor except for John who opposed. He pointed out that the logo is already in print and we need it for the March CPES event and our workshop. The group compromised and agreed to look at other logos but to continue using the current logo for the time being. Ben will be contacted by Ralph to see if he has any redesign ideas.

There was then a roundtable chaired by Tony Silverio and the topic was initiated by Ray and started off initially as to how the contractor group determines loop length to spec for the drillers. Ray sees many different thresholds. The conversation then evolved into the most critical part of sizing the loop or the equipment; building load calculation. Software and different modeling techniques were discussed at length.

At 9:05 Tony wrapped up the round table. Dave motioned to adjourn, Ralph seconded and all were in favor.

Meeting adjourned at 9:05pm.

Minutes respectfully submitted by:

Jane Bugbee
Secretary the Connecticut Geothermal Association

Connecticut Geothermal Association

Meeting Minutes

Secretary's Report - May 1, 2012

Call to Order by Guy Wanegar at 7:30

23 Attendees- Guy Wanegar; Mark Henderson; John Sima III; John Sima IV; Stephen Wierzbicki; Phil Robert; Sam Johnston; Herb Davidson; Jim Sansoucy; Bill Seguin; David Corcoran; Dane Weber; Scott Beaulieu; Doug Rothmann; David Klecan; Mark Foley; Ray Sima; Pete D'Agostino; JP Langlois; Tyler Wragg; Tony Silverio; Scot Rogers; Larry Sima.

Officers' Reports

President

Compliments to Ray Sima for a job well done on workshop.

Maryland passed law saying that geothermal must be recognized as a renewable energy source. We need to work with our Legislators in that direction.

GEO - WaterFurnace CEO, Tom Huntington is president of GEO. GEO wants to establish state chapters. We don't know yet, whether we would have to re-register as a non-profit organization to become a chapter of GEO. Our association is not currently a member.

Smart Living Center (Orange, CT) brought in a out-of state presenter (Martin Orio) to speak on geothermal. Guy noted that we could have provided someone locally to do that. We do have access to that Smart Living Center in Orange for future programs.

Norwich Technical School. Guy, Jane and John will attend a meeting with State Technical School representatives on May 10. The Tech schools have received grants from CEEF and CEFIA to build homes using Energy Efficiency and Renewable Energy technologies. Norwich Tech School will be building a demonstration project. We have an opportunity to weigh-in on how geothermal will be incorporated. (Guy, Jane, please correct me if I'm wrong, or missing something on this)

Vice President

CT-ASHRAE at City Steam Brewery – Slide show by engineers billed as geothermal. Slides were of some pretty complicated schematic drawings of commercial geothermal piping systems, so little was learned. But CT ASHRAE is receptive to combining a meeting with our association. They are meeting next week (Thursday, May 10) at Marriott, Cromwell. This month's meeting is on advancements in chiller technology. John will go. All are welcome - \$35.00 for dinner and the meeting.

CT Power & Energy Conference March 14. – Dan Esty (DEEP) and Brian Garcia (CEFIA) spoke on CT energy issues. Other presentations focused on the fantastic natural gas deposits in Pennsylvania and New York. When I (John) asked whether CEFIA will be able to help the geothermal industry, Brian revealed that the CEFIA fund would continue beyond April 30.

CT Science Center – Jane and John helped evaluate submittals for Hartford Innovation Grants. Grant moneys up to \$15,000 were available to entrepreneurs in Hartford. The money comes from HUD, administered by the City of Hartford with help from the Science Center. One applicant has a geothermal research project – Aztech Engineers – wants to drill a 300 - ft deep well and evaluate a new design for geo exchange. It looked to Jane and John like a variation on standing column design. They received a grant for the full \$15,000 available.

Also, the Science Center has a whole section dedicated to energy efficiency and renewable energy. The director indicated that he would be interested in adding an exhibit on geothermal there. This would be an expensive undertaking, but might be something we could do with GEO or some manufacturers.

Treasurer

Workshop \$2,620 gross – ~\$1,400 expenses = ~\$1,200 net. Scott, please follow up with details.

CT Power and Energy – Scott reimbursed John Sima \$500.00, for our association to help sponsor the March 14 conference.

New memberships – Scott, I apologize, but did not get these. Please send a note out on this too.

Old Business

Workshop – Ray Sima reported 37 contractors registered, and 17 suppliers supported us. Many people complimented Peter Harding and John Manning for excellent presentations. We who attended received certificates for CEU's. Ray added that we can pick a better date next year, since we have more lead time now. Everyone seems to be in favor of doing it again next year.

We are looking for a new logo. Please offer up your suggestions.

New Business

Plymouth Food Pantry community service project. Peter Tavino has been in touch with Plymouth Food Pantry, about having our association donate services and equipment to replace an existing oil-fired heating system with geothermal. Ray Sima has offered to donate some drilling and/or loop-installation services. Peter is looking for other volunteers. Peter was not present to report personally, so the project was tabled. Meeting will be set up with Food Pantry folks. Please let Peter or Guy know if you are interested in donating to the project. Everyone is welcome to pitch in.

Round Table Discussion

Connecticut Code Inspectors – J P Langlois represented the Connecticut Association of Code Inspectors.

There were lively discussions on ductwork. Here are a few topics that we covered.

Will duct board be eliminated from code?

Duct testing - HERS raters sometimes do not do their job (duct testing) correctly. You need to be there to witness the tests.

Return air ducts – Some (many?) contractors undersize return ducts. Retrofit jobs often need increased return air.

ECM fan motors will try to compensate for undersized ducts. End result is noisy fan.

If you do a retrofit where you simply change the machine, you are only responsible for building your plenums to the new code. But if you make any other changes or additions, you now 'own' the entire duct system, and it all needs to be up to code. Mark – Please correct me if I'm wrong on this.

Duct insulation is not needed within the conditioned space. If the temperature in an above-ceiling plenum is within 15 degrees of room temperature, ducts there do not need insulation.

Loops. Pressure test on the outside (underground) loop is required by the Mechanical Code. Some Towns are requiring it, but many are not (yet). We were not able to determine whose jurisdiction this is under.

JP Langlois noted that the Code Inspectors do need to learn more about geothermal systems. He also noted that it is best to talk to the local inspector at the start of each project, to find out what will be expected.

Adjournment 8:50.

Submitted by John Sima

Minutes
Connecticut Geothermal Association
June 5, 2012 6:30 PM
Chuck's Steakhouse Rocky Hill, CT

John called the meeting to order at 7:40PM after dinner, as Guy was absent and receiving a Connecticut Green Business Award. Those present John Sima III, Mark Henderson, Dave Ragaini, John Sima IV, Peter Tavino, Ray Sima, Jane Bugbee, Dane Weber, Scott Beaulieu, Bob Cramer and Scot Rogers.

John's first order of business was an update on the association's collaboration with the Connecticut Technical High School system on integrating geothermal into their E-Houses. The E-Houses are built by the students using grants from the Clean Energy and Energy Efficiency Funds and integrate all trades from construction to electrical to HVAC. Guy and John met with the Norwich technical high school and Guy submitted the design to them. The school is requesting from the association what list of skills, or objectives, we propose the students have. John drafted a preliminary list, which was handed out, for the membership to build upon.

John also reported on the Energy Conservation Management Board's public input session held at the Legislative Office Building in Hartford. Rick King, Guy and John all addressed the Board during the last moments of the session and were received very well. Guy followed up with a letter to Dan Esty, the commission of the Department of Energy and Environmental Protection (DEEP), on behalf of the association with the main objective of gaining recognition for the technology on the state level as a renewable energy. The group elaborated on other states that had tax credit programs or financing available and other models we should look into to suggest to the ECMB. Guy also sent a follow up letter with Tracey Babbidge, also at DEEP.

John Sima III and John Sima IV will be attending the CBIA conference in Waterbury later this month. John was unable to secure an exhibitor or presenter spot, but feels it's important that the group have a presence at events such as this where Dan Esty and Brian Garcia of the Clean Energy Fund will be present. This concluded the Vice President's report.

Scott reviewed his treasurer report with a balance carried forward from last month of \$4,916.85 with one debit to Hydro Dynamic Engineering for registration at the Connecticut Power and Energy Society conference, for a closing balance of \$4,416.85.

Jane had nothing for the secretary report, but did acknowledge the hard work Guy has been devoting to the association to increase awareness of the group.

The only committee chair present was Peter Tavino, so he reported on concern regarding prevailing wages on the commercial projects. The program design prevented many commercial projects from pursuing the geothermal incentive through CEFIA and thinks this should be brought to the attention of the board at the next meeting by our group. Peter requested reimbursement of \$100 for his REEBA membership. Prior to voting the group discussed joining REEBA as an association versus having a member join on behalf of the association. The group voted to reimburse Peter for applying on behalf of the association to REEBA up to \$500. If the cost of membership for an association is greater than \$500, Peter will present the amount next meeting and the group will vote to either pay for Peter's membership or pay the association membership, whatever the amount greater than \$500 is. John motioned to vote, Ray seconded and all were in favor of this solution.

Peter addressed the Plymouth food pantry community service project. The building will need two systems; a 5 ton system and a 3 ton system. However, the building is not used full time and the church that owns the pantry is thinking about selling the property. Peter suggested everyone reach out to their clients and ask for a donation to help the project. After group discussion, a consensus was shared by all that the association does need to do a community service project but the Plymouth food pantry may not be the right customer. Before next meeting, everyone will reach out to their clients, family or friends and ask if they know of a struggling non-profit organization that could benefit from geothermal. We would like to avoid political and religious affiliations, and preferable help a children's charity. [Proposed Community Service Project Info here.](#)

Peter drafted a comic book for children starring a superhero, R-410a. He asked the group to please review and submit comments to him either by e-mail or mail to his PO Box in Litchfield. The draft is posted to the website.

Preliminary Comic Book Format [Geothermal for Children](#) 7 Chapters
as power point pptx, for possible publication by NEGPA too.

For new business, the group discussed membership to various different organizations. The list of organizations we should vote on joining next meeting are GEO, CHCC and ASHRAE. Scott will prepare a budget to reflect membership costs so we can assess whether or not we can join one or all of these organizations.

There was also discussion about conflict of interest with the CEFIA geothermal inspector. Many of the membership have experience with the CEFIA inspector trying to

upsell their customers on solar. The group shares the opinion that he should not use his position with CEFIA to promote his own business and should be a non-biased inspector. Scott will work on a draft letter and we will present this next Friday June 15th at the CEFIA Board meeting during the public input session.

The round table discussion had by the group was regarding actual concentrations of propylene glycol. Dave Ragaini brought a refractometer to test three different samples of what should have been 20% glycol solutions. They were all about 13% as a result of the 'pure' glycol being purchases having an actual concentration of closer to 70%. Dave was able to find a 96% product, with a price tag of \$23 per gallon. The main point of the round table was to bring to the attention of the group that they should be testing the concentration of glycol in their loops on every job. The refractometer retails just over \$100 and is a great tool. During this discussion, there was also discussion on purging loops, pressure testing and pressurized vs. non pressurized systems. John suggested this be the topic for July's meeting and that we discuss Energy Star version III at the August meeting as it will implemented this fall.

Before closing, Jane announced that she had to step down as secretary due to other time commitments but will maintain an active membership.

At 9:05 Dave motioned to adjourn, Ray seconded and all were in favor.

Meeting adjourned at 9:05pm.

Minutes respectfully submitted by:

Jane Bugbee
Secretary the Connecticut Geothermal Association

Follow up idea that CGA should see if geothermal clients/ users should sign up for a reduction in electric rates.

Here are the suppliers:

http://www.ctenergyinfo.com/view_rates.htm?electricity_rates_id=1wvbdgfp

Minutes

Connecticut Geothermal Association

July 3rd, 2012 6:30 PM

Chuck's Steak House Rocky Hill, CT

Guy called the meeting to order at 7:15. Present were John Sima, Larry Sima, Ray Sima, Dave Raggaini, Steve Wierzbicki, Bob Polmatier, and Guy Wanegar.

Guy's first order of business was to inform of the possible changing political climate in CT, there are 3 Senate and 23 House seats up for grabs this time around. Now is the time to contact the candidates and find out where they stand. Secondly was the announcement that NH has a new thermal energy bill they have voted on and will be seeking input on. The geothermal section was actually added in by the biomass sector?

John gave his report on the CBIA Energy Conference. - Much of that meeting focused on environmental regulations. The energy part of it focused on the DEEP's effort to get new (small) electric generation capacity online by running a reverse-auction. Bidders propose to provide electricity to the grid at a set price. They'll get grant money to help them build their systems. John submitted a written question for Dan Esty to answer during his question and answer session, about how geothermal heat pump installations might receive incentives in the future. The question was not forwarded to Commissioner Esty.

Guy gave the treasurers report as Scott was absent. The account balance is \$4,416.85. The Association owes Peter Tavino for his REEBA dues.

The Association lacks a secretary at this point. Guy filled in for this meeting.

The meeting was an open forum meeting and began with a discussion of an email forwarded to CTGEO from NEGPA. The email was authored by Roger Skillings, a geothermal drilling company, and dealt with trying to stop bad geothermal jobs and how to resolve existing bad jobs. Members of our association tossed the subject around via email where one of the statements was "maybe we need to educate more contractors on the right way to install geothermal." The meeting discussion picked it up from there whether or not we should be educating more contractors, why educate our competition? Also there is always going to be a certain percentage that refuses to become educated so maybe we need to look at remediation vs. education? The final thought was a committee should be formed to review and recommend remedies for bad jobs.

Ray Sima brought up the possible association with CHCC, John, Ray and I had been approached by Jen Jennings Executive Secretary of CHCC about becoming aligned. All present wanted to know how this would take place,

what are the pros and cons. We will follow up with inviting some of the board to our next meeting.

John Sima started a discussion on flushing and purging. All members had input with some problem scenarios they had experienced or heard of. All felt this would be a good subject for further discussion at an upcoming meeting or even a workshop.

Guy motioned to adjourn at 8:35 and Steve seconded.

Connecticut Geothermal Association

August 7, 2012

Meeting Notes as amended

Attendees

Guy Wanegar
Jim Sansoucy
Scott Beaulieu
Tony Silverio
Mark Henderson
John Sima III
Phil Robert
Eric D'Eramo
Jennifer Jennings
John Sima IV
Ray Sima
Steve Werzbicki
Bob Polmatier
Mark Foley
Peter Tavino
David Corcoran
Scot Rogers
John Pouliot
Bill Seguin
David Shenker

Call to order by President Guy Wanegar at 7:30 PM.

CHCC

Eric D'Eramo, CHCC President addressed the group to introduce us to his association. His email address is President@chcc.net. CHCC has 140 members. Monthly meetings feature topics of interest to the membership, including building inspectors (September), seminars on technical topics, risk management, legislation. They have a lobbyist, and two paid staff persons, working year-round to promote and represent the trade.

Jennifer Jennings, Executive Secretary of CHCC gave us more detailed information on what their group does for its members, including educational programs to help prepare for licensing exams, watchdog legislation and prepare input to the State Legislature, organize golf outing and trade show. They publish a semi-annual magazine, Comfort Connection, featuring information helpful to the membership.

CHCC has an organized structure in-place to help us. They suggested that our group might join them in some way. Looking forward to speaking with us in more detail.

Website: www.chcca.net

Membership renewals

It's time to renew your membership. Membership runs July 1 to June 30.

Member involvement

We need more members to help out with activities.

Hartford Green Business

Prints 16,000 copies. Has invited us to advertise \$1,600.

New Hampshire's new energy bill

SB-218 – recognizes geothermal as a renewable energy resource. NEGPA is involved to help write regulations pertaining to this new law. We have an opportunity to help with this. We will forward information as it becomes available. Stand by.

Get letters out to representatives

Find out who is your representative, and/or who is running for re-election in your area. Help steer things our way by letting your representative and senator know about geo and about us. Geothermal heat pumps save energy and they save money. They use energy from the sun that is stored in the earth. That's renewable energy.

Connecticut Green Building Council

Has invited us to prepare a program (presentation) geared toward architects and engineers, to explain geothermal by springtime. We might be able to put something together that passes muster for CEU's. Another great opportunity for us to be involved with educating professionals in our trade.

Connecticut Farm Energy Program

Also looking to us to prepare a presentation.

CBIA 'What's up

An opportunity to familiarize us to policy makers in October. Guy and John have both inquired at CBIA to see if we can participate as an Association – by exhibiting and/or by making a presentation.

Connecticut Realtors

Also looking to us for a presentation.

Vice President

John's letter to Senator Richard Blumenthal and Joe Markley, to make them aware of us, were actually answered favorably. John encourages everyone to contact his representative and senator.

EEB – The DEEP and Energy Efficiency Board sponsored workshops in Waterbury recently. It was half environmental, and half energy-related. The energy sessions focused on solar. John was not able to engage Commissioner Esty on geothermal.

Secretary's Report

No Secretary last month. Peter Tavino volunteered tonight to serve as Secretary for the remainder of this year. His offer was accepted unanimously. Thank You Peter!

Treasurer's Report

Checking account balance - \$4,366.85.

Scott will send invoices for this year's dues as soon as we work out details for how to deal with members who recently paid, just before the end of our official July 1 - June 30 annual dues/membership cycle.

Standards Report

Peter Tavino is renewing our membership in REEBA.

Peter is also checking with CEFIA on what is happening, now that the ARRA money is 'used up'. \$168,000 has been spent on a study of geothermal. Money is also being contributed by CEEF. The total cost of the study might be \$500,000. KEMA/NMR, an engineering firm, is conducting [the study](#). None of our members have been consulted.

Ducts – Dept of Construction Services says duct testing does not need to be performed by a 'certified' operator. Testers need to be familiar with the testing equipment, the process and its purpose. [link](#)

Variable Speed Compressors – AHRI does not have a category yet, for inverter-drive compressors, so applications for refund will use manufacturer's performance figures. [link](#)

Peter has developed a slide show on geothermal. It is proving to be helpful for teaching the general public.

Public Outreach

Green Building open house is going to be on October 13. Contact Guy or Ben McDaniel if you have a house that you are interested in having including. NESAs = Northeast Sustainable energy Association.

Membership

New Business

Secretary position – Peter Tavino offered to take the job. Jim Sansoucy moved to elect Peter to do so until the end of the year. The motion carried unanimously.

Website – Market Hardware bid \$2,199 to Guy, to develop a website. They would charge \$299.00 per year to host it. We can get access to it to make changes.

Ray is working on revamping his website. Keywords are important to getting found on the web. Peter moved to go ahead. Dave moved to get more prices and information first. That motion carried.

Associating with other groups – Reciprocal membership (liaisons), where some of our members belong to both groups, keep each other informed. We are already doing this. Martin Orio has suggested that we each have a member on the other's Board.

Tony Silverio noted that he has not known how he can help the CT Geo Association. He mentioned that he (and others) can be the liaison to some other group. Peter recommends assigning specific members to be liaisons to specific other groups.

CHCC – Dave moved to investigate an alliance with CHCC, by meeting with Eric and Jenn. A motion, for Guy and John to talk with them, passed unanimously.

Discussion followed on alliances. Some members are in favor of allying with a group like CHCC, because lobbying is expensive. Most members prefer to just associate with them for now, because we have a special purpose and should not just become a 'chapter' of a larger group.

Workshop with Wrightsoft – Tony attended classes with Wrightsoft, and they were very helpful for him. Wrightsoft is willing to do an overview introduction to the software for us. Guy will see about setting up something for September.

CT Farm Energy - \$75.00 per booth. December 1 at Glastonbury Country Club. Sponsorship \$100, \$250 and up. John moved to buy a booth. Guy and Dave offered to man it. Motion carried.

Membership. Scott moved we convert to fixed-date membership. From this date forward, membership runs July 1 to June 30. Moved, seconded and voted unanimously.

Adjournment 9:22

John F. Sima III

Connecticut Geothermal Association September 4, 2012 Meeting Minutes

Attendees

Guy Wanegar Jim Sansoucy Scott Beaulieu David Ragaini Mark Henderson John Sima III Phil Robert Tyler Wragg David Shanker John Sima IV	Ray Sima Rich Vocke Steve Werzbicki Bob Polmatier Peter Tavino David Corcoran Rick King
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Secretary's note: Next month marks the completion of two years of monthly meetings. The membership was active tonight, voting unanimously to fund thousands of dollars in promoting the Association through various programs as noted below:

Call to order by President Guy Wanegar at 7:30 PM.

CEFIA Meeting (Guy)

Guy, John Sima III and Peter Tavino met with David Ljungquist at CEFIA headquarters last week. 40 rebated homes are being studied with \$167,000 in CEFIA funds originally earmarked for rebates plus \$167,000 by CEEF to Massachusetts consultant KEMA/NMR.

These officers (and NEGPA) have emailed detail available for interested parties. The results are important to CGA and recommendations were submitted to David Ljungquist.

Later 8:30pm meeting discussion on this topic:

Concern was shown that ACCA Js are being done needlessly, and VIPs performed without being able to measure water flow, so results will be invalid.

Rick King said 20 of his houses were being monitored, and he met a rep on one 10 ton water to water job, after that rep had just finished training. A story about a leaking test pipe followed. Concern was expressed by others for heat pump warranty impact from KEMA/NMR staff.

Peter Tavino noted that no 2012 winter study of loops in heating mode was done as proposed, (because of a CEFIA funding delay) and the project schedule requires completion by December. Air conditioning is just a small benefit for geo in Connecticut where we are heating dominant. Peter criticized the billable hours (for blower door tests, etc.) as being mostly non geothermal related. He said the funds from the \$5 million that should have gone to rebates at \$2000 per ton were reduced to \$1200 despite objections, and now that that program is done, only about \$3 million was rebated to our clients. The remainder went to this study, future financing, etc. Only 4 or 5 commercial rebates were received by members polled, showing the CEFIA commercial building rebate program did not achieve its goals. Peter feels the state imposed prevailing wage requirement defended by the AFL/CIO union board representative ruined this market. Peter opined that it was a pity the geo program was not held accountable, and the use of funds for future high interest (7-9%) loans has our state geothermal industry worse off than it should have been after the federal ARRA millions were spent.

CGA awaits a response from KEMA/NMR through the Energy Efficiency Board and David Ljungquist.

Real Estate meeting (Guy)

Guy and John Sima III will attend the South Shore Realty Association meeting.

The Galleria (Guy)

Gerry Martinelli, co owner has invited CGA to exhibit for free at a new Energy Exhibit planned at their large granite display store. CGA is generally receptive to this, but made no formal motion, pending a detailed invitation.

CBIA (CT Business and Industry Council) (John)

October 5 will be an energy oriented exhibit. (Packed last year.) John suggested CGA pay \$500 for a booth. Later a motion was made by Rick King and seconded by Jim Sansoucy to fund a booth. Passed unanimously. 2 hour shifts are planned at this time, depending on member attendance.

Well Code (John)

Bob Scully is holding the well code up with the attorney at Consumer Protection. Peter Tavino said he emailed Bob asking for a 5' not 50' nor 10 separations to septic systems when the new health code comes out Jan. 1. Ray Sima and Tyler Wragg noted the varying sanitarian interpretations, and the importance of using properly licensed drillers once code is enacted.

NEGPA (John)

CGA might cohost the November meeting. Later it was suggested that Geo Exchange send a speaker to CT for that meeting. Board meeting tomorrow night will be attended by Guy, John and Jim.

Membership renewals (Scott)

Membership runs July 1 to June 30. Checks are being received and are now due. Account balance is \$4,801.85 from 27 members last year. New balance at start of this year is \$6486. Insurance will be \$1300 due March 1. No taxes because we have not sold anything.

Jim Sansoucy suggested stickers or certificates for paid members. David Corcoran will pass out pamphlets in a booth he is sponsoring at a show in October.

Green Buildings Open House Tour (Guy)

October 13 from 10 am – 3 pm. Guy and others will participate. See homes at www.NESA.org

Geo Exchange Membership (Guy)

GeoExchange offered help to NEGPA to pass NH legislation. They would like CGA to join for \$500. Jim Sansoucy noted that WaterFurnace pays \$250,000 a year, and \$25 from every WF heat pump sold goes here to promote geothermal. IGSHPA conference will not be supported this year by WF or ClimateMaster, so Geoexchange seems to be the future. It was also noted that HeatSpring is looking to start a national organization. John Sima motioned that we join GEO for \$500. David Corcoran seconded and suggested they send us a speaker (for November) Passed unanimously.

New CGA website (Guy)

Cost analyzed since last month is \$2695 with \$299 per year maintenance. Peter Tavino said he would be happy to improve the website in any way suggested, but has no problem having it done professionally.

Ray Sima made motion to fund this. Seconded by John Sima III. Passed unanimously.

CT Farmers Expo (Rick King)

On dec 2 in Glastonbury. Rick and Blake equipment have purchased a booth and invited CGA members to run it with them at no cost. Any leads from that exposure can result in visits to the customer by both king and others. This was discussed as a good market for geothermal, where even tulips need refrigeration, and grant monies are available.

Connecticut Green Building Council (Guy)

Volunteers are needed to develop a training document, that can be used for architect and engineer continuing education. Guy, John, Ray and Jim will help Steve.

State Trade Schools (John)

John sent a list of what to include. Haley and Aldridge also prepared a 20 page report that had recommendations such as two tons needs two 150' boreholes with 3" reverse return to the building (as is not done in CT)

Video of how to flush a loop was made available by CD, but not shown tonight as planned because meeting business ran late into the evening.

Adjournment 9:05 pm

*Respectfully submitted,
Peter Tavino*

Connecticut Geothermal Association
October 2, 2012
Meeting Notes

Attendees

Guy Wanegar
Tony Silverio
Mark Henderson
John Sima III
Phil Robert
John Sima IV

Ray Sima
David Corcoran
Scot Rogers
Bill Seguin
David Ragaini
David Shenker

Call to order by President Guy Wanegar at 7:40 PM.

Guy made the following announcements -

US Senate has passed a bill approving geothermal heat pumps as a renewable resource. Waiting for House of Representatives.

CEFIA financing – Geothermal approved for 4.9% financing. Paperwork is difficult to get through. Loan does not cover entire cost of a project.

CEFIA has announced \$1,000,000 loans for colleges to invest in energy savings. Don't know if geothermal will benefit.

March dinner meeting – NEGPA has agreed to co-sponsor a dinner meeting. Doug Dougherty (President of GEO) has agreed to address the meeting. Details remain to be worked out.

Guy, John and John IV presented a brief demonstration to seven realtors at a private home in Killingworth. The realtors were receptive and promised to spread the word.

Guy is having an issue with a project he has invested a lot of time in bidding. Peter Harding has been discouraging geothermal in favor of ductless mini-splits with boiler backup. Scot Rogers has had the same problem with Peter on two of his projects.

An article in Journal Enquirer – Peter Governale received CEFIA money to fund a solar and geothermal installation at his own home.

New Hampshire's new energy bill

SB-218 – recognizes geothermal as a renewable energy resource. NEGPA is involved to help write regulations pertaining to this new law. We have an opportunity to help with this. We will forward information as it becomes available. Stand by.

Connecticut Farm & Energy Expo

We will be present at the Connecticut Farm & Energy Expo at 300 Welles Road, Glastonbury on December 1, 10:00 AM to 3:00 PM, compliments of King Energy. Admission is free. The Connecticut Farm Energy program is also looking to us to make a presentation on geothermal heat pumps for them.

CBIA ‘What’s The Deal

Guy and John will attend a booth at the ‘What’s the Deal’ conference on Friday, October 5, 2012.

Connecticut Realtors

John, Guy and John IV made a presentation on geothermal heat pumps to seven realtors at a home in Killingworth on Wednesday 9/5/12.

Secretary’s Report

Peter Tavino posted last month’s report on the website. Peter could not attend tonight, as he is in Indiana at the IGSHPA convention.

Treasurer’s Report

Scott could not attend either, but he reported a check book balance of \$7,606.00 by email prior to the meeting.

Public Outreach

Green Building open house is going to be on October 13. Contact Guy or Ben McDaniel if you have a house that you are interested in having including. NESAs = Northeast Sustainable energy Association. It is not too late to sign up your project. Visit the NESAs website for details.

The CT Green Buildings Council is also hoping that we will be able to help them develop some training sessions on geothermal.

New Business

Bumper stickers - \$2.00 / ea for 100. \$1.50 / ea for 250. \$1.00 / ea for 500. Ray moved to make 500. Motion was seconded and voted in unanimously. Guy will go ahead with an order for 500.

Old Business

Website – Market Hardware is working on our new website.

Northeast Sustainable Energy – October 13, 2012

CHCC – Guy and John have not met yet with Eric D’Eramo at CHCC.

CT Farm Energy – King Energy has taken a booth, and welcomes the association to participate.

What’s the Deal – This Friday in Cromwell. Governor Malloy and Dan Esty will speak on Connecticut’s energy policy. Guy and John will attend. Hoping to speak to policy makers about getting their support for geothermal.

Scot Rodgers reported on testing conducted on geothermal installations by CEFIA’s consultant KEMA. The testing crew installed monitoring equipment on two systems after taking real-time readings of current voltage water temperature. Rick was present for some of their testing, and is doubtful that they will be collecting correct data. It looks like the monitored systems have done little monitoring during a heating season. Scot will check back with them to ask about whether their technicians are licensed. No results have been reported yet.

Program

Guy played a training video on loop flushing and purging.

Adjournment 9:00

John F. Sima III

Connecticut Geothermal Association November 6, 2012 Meeting Notes

Attendees

Guy Wanegar	Rick King
Mark Henderson	Jim Sansoucy
John Sima III	Amanda Schneck
Phil Robert	Galen Betz
John Sima IV	Rich Vocke
Ray Sima	Larry Sima
David Corcoran	Bob Polmatier
Scot Rogers	Richard Dusza
David Ragaini	Stephen Wierzbicki
David Shenker	Natasha D.
	Peter Tavino

Call to order by President Guy Wanegar at 7:10 PM.
In treasurer's absence tonight, balance is \$4112.85 (Website \$2994 CBIA \$500)

Guy made the following announcements -
He and John Sima III attended Gov. Molloy's What's the Deal? (Energy Report-appendix A has geothermal)
Open Houses for 6 sites 30 people each which we promoted.
John and Guy also attended CBIA with a booth, where they advised on E houses for Tech High schools.
Guy attended EEF Board Meeting and submitted comments in writing.
We discussed Renewable Energy Credits; we propose Class 1 not Class 3.
Guy noted that the new web site is up and running.

Galen Betz, Senior Regional Manager of Water Furnace spoke as Jim Sansoucy's guest.
He understands the 30% tax credit will stay. Geo as a 1 to 11/2% penetration in hvac market. But business was good in 2008 before tax credit but with high oil price.
Geo Association supported by Water Furnace, ClimateMaster and Enertech only.
#1 problem is public awareness
North Dakota has a 15% state tax credit. Iowa 10%? Colorado incentives gone.
W.F. hired a director of utilities liaison person.
Go Go Geothermal in Oklahoma using 5 cooperatives owning loops in pilot program.
W.F. is offering a scholarship to a high school student who makes a video of geo.

Discussion by many about studies.
KEMA interviewed Hohn Sima, Steve and Scott Rogers. Rick discussed a 1993 study by a scientist on Rick King's job showing it works. NEGPA is studying BTUs in the ground saved. Rick suggested second way is duct temps vs. electrical use. We discussed measuring flow in a 1" pipe only with a pulse signal of turbulence.

We will be present at the Connecticut Farm & Energy Expo at 300 Welles Road, Glastonbury on December 1, 10:00 AM to 3:00 PM, compliments of King Energy. Admission is free. – King Energy has taken a booth, and welcomes the association to participate. A long discussion was held on geo for farming.

Peter Tavino said he and John and Larry Sima and Dennis Leary met with Bob Scully.
Bob said water well folks are considering a 50' not 25' setback to wells, so grout does not reach it. Peter said Bob said horizontal loop installers must be licensed W-7 not clear and needs work. Peter said he received a Training award at the

IGSHPA conference and presented Geo for Kidz now at
www.SimplyGeothermal.com

Jim Sansoucy reported normal membership activity. LaFramboise Well Drilling signed as a \$300 member.

Adjournment 8:35pm

Peter Tavino, Secretary

December minutes to be located