A 2016 Annual Report for CaliforniaGeo



The Year In Review-

The following words attempt to capture the activity and achievements of our association during the past year. By publishing these efforts we can continue to compare our work to the <u>overall mission</u> we have set for ourselves. This will highlight what has been accomplished for our <u>supporting members</u> and our industry, represented by both IGSHPA® (the International Ground Source Heat Pump Association) and GEO® (the Geothermal Exchange Organization).

Though we are a non-profit 501 c3 all volunteer organization, we are trying to work together to make progress in bringing more greenhouse gas-free geo heat pump heating, cooling, and hot water production to California, where installations by 2015 <u>ranked 47th per capita</u> in the nation. It is our job to improve that record and we need the help of our members and others to get it done.

January: Following contact made in late December, several board members participated in phone interviews with Google to accurately describe for them what geo heat pump technology was, and how it could be used in retrofits or new construction. The company is considering expansion into geo and contracted geo installer training at their west Bay Area office in late spring by **IGSHPA training** staff.

February: We contracted with *Energized Graphics* to overhaul the look and feel and menus of our website and ready it for large blocks of new content.

We produced a webinar that featured three GeoExchange® projects of different types in three locations (Florida, Tennessee, and Colorado) that seriously reduced or eliminated water consumption by cooling towers. California's 5-year drought was the serious backdrop to these presentations.

March: We worked with the <u>American Ground Water Trust</u>, helping to produce their "Geo Day" in Los Angeles. Four members made presentations to this group, and a site visit was made to <u>Rancho Los Alamitos</u> in Long Beach, location of one of the better outcomes of a geo project serving a public facility space.

We also produced a feature on a California carbonless **<u>zero net energy home</u>** for the Geo Exchange Organization's newsletter.

April: We held our annual corporate day-long meeting in Santa Rosa, adding Terracon's Neil Anderson to our **Board of Directors**.

IGSHPA contacted us about a partnership for delivering training in California which we discussed and both committed to building a joint agreement.

We gained new Affiliate member Doug Kolozsvari, who was a contracted associate for the BAAQMD (Bay Area Air Quality Management District) in San Francisco. This led to the generation of five pages of examples forwarded that matched BAAQMD's goals in their Climate Protection Plan to the specific capabilities and benefits of geo heat pumps. CaliforniaGeo attended and contributed to a BAAQMD meeting at their headquarters to directly explain geo heat pump mechanics. A portion of this effort was due to the hope that a new IKEA retail outlet in Dublin might utilize geo heat pumps and head for a ZNE (zero net energy) rating.

We initiated contact with Linda Murphy, Executive Director of <u>CABEC</u> (the California Association of Building Energy Professionals) requesting a presentation slot in a future annual conference of theirs. The response was positive.

May: We finalized the structure and function of our website after great work by *Energized Graphics*. Additional stories, graphics, photos, and blog entries have been posted since. After obtaining Google Analytics for our website, we are tracking unique visits, time on site, bounce rate, and other statistics to justify future sponsorship offerings.

Posting of content from our 4/23/15 **Zero Net Energy Seminar** in San Jose was finalized, accounting for six hours of narratives with slides. Since then, it has been our most popular download from the website (330 as of 12-10-16).

The final draft of our MOU in <u>partnership with IGSHPA</u> for training in California was adopted by both boards of directors.

We posted the first entry to our website's Engineer's Corner, a white paper on thermal conductivity testing by Board Member Terry Proffer.

June: President Bill made a personal visit to CaliforniaGeo's newest member (<u>Earth Heat</u>) in Duvall, WA. Yes, this installer includes California in their working circle with a very mobile set of equipment!

We re-engaged with the Building Standards Office of the CEC (California Energy Commission) to confirm the existence of a little-known (but legal) pathway for geo heat pump installations after the 2016 standards take effect on 1/1/17.

The privately contracted Google training in geo heat pump technology (contemplated in January) took place in Menlo Park over four days with IGSHPA trainers Cary Smith and John Turley, with Acting Executive Director Roshan Revankar. This was basically an installer's course.

July: We attended a BAAQMD public meeting announcing the finalizing and implementation process of their <u>Climate Protection Plan</u>, where reduced methane use is a large part of future efforts. Obviously, geo heat pumps (previously mentioned in the lengthy written comments by us into BAAQMD's public docket) can be a large part of this program as it rolls out.

Ed Lohrenz of <u>GeoOptimize Canada</u> requested that we make an opening presentation to ENGeo, a New Zealand engineering firm with six offices in California that wants to expand its geothermal work portfolio. Planning for an August appearance began.

August: President Bill traveled to the **ENGeo** office in Dublin, CA to open the first of three presentations to assembled engineering staff on the subject of geothermal heat pump use. Huw Williams and Ed Lohrenz followed, and the two went to City of San Francisco offices two weeks later with another presentation toward public housing inclusion of geo technology in planned, multi-residential construction.

Welcome to James Wilcox of <u>VernonSons Construction</u> in Santa Barbara, CA as our latest Service Provider member!

CaliforniaGeo's Board of Directors adopted an update of their **By-Laws**; the first adjustment since 2012.

September: A call to membership was sent for help in promoting congressional legislation to extend the geo heat pump tax credits via HR 5167 & SB 1755. Sample (template) letters were circulated with a list of congressional reps from California on key committees that would consider these bills.

President Bill accepted a seat on the TAC (Technical Advisory Committee) for an EPIC (Electric Program Investment Charge) grant to the <u>Western Cooling</u> <u>Efficiency Center</u> of Davis, sponsored by the Energy Commission. WCEC will study the mechanics and performance of shallow auger-bored helical heat exchangers, 24" wide by 15-22 feet deep.

October: Mailings supporting the geo heat pump tax credit extension continued to congressional members (in coordination with the **Geothermal Exchange Organization's** campaign) for our industry.

President Bill attended the first TAC meeting for WCEC's grant at their Davis offices, meeting the principals, other TAC members, and grant supervising staff from the Energy Commission. Several emailings of geo literature and engineering have been sent since then, to help the effort.

Board Chair Susan Nichol and Bill continued with monitoring of Google Analytics reports of our website traffic, which continues to pick up, slowly. The blog post count on our website reached 24 by month's end.

November: We were contacted by <u>CABEC's</u> Training and Education Manager, Hope Colitz to open discussion on how CaliforniaGeo could team with CABEC to reach their members with geo heat pump technical and case history information.

Later in the month, Hope, President Bill, and Todd Ferris of the CEC conferenced by WebEx to continue the discussion. Todd and Bill will continue their previous work toward production of a geo heat pump (GHP) narrative statement illustrating their compliance option in the new Title-24 standards. When that statement is completed, this trio will meet again in January to plan a CABEC Webinar on the subject, tentatively scheduled for mid-March.

Board member Paul Bony (long ago, a demand side planner for Sierra Pacific in Reno) has been invited to serve on the steering committee for energy (DC) storage. This is an important connection for us because the Duck Curve imbalance to electric utility load profiles has adversely affected the grid by excess daytime solar PV generation. Expanded grid-scale DC storage of daytime solar electricity will allow utilities to put that energy back on the grid other than when the sun is shining. The more this technology succeeds, the more we can stress that geo heat pumps matched with solar electric are the one-two punch of a renewable future.

December: By the Board's 12/9 meeting, the website's blog post total reached 35 features. Our posts of energy-related news by other print and online outlets has reached 16. As analyzed by Google Analytics, our website visits are up 59 per month, page views up 202 per month, bounce rate down by 29%, and time on-site is up 23%—all in the last 30 days. Our most popular landings are on the **GHEX types** page, and the most popular download page is our 2015 San Jose **ZNE Seminar** (by a wide margin).

The website is making progress toward the point where we will encourage outside sponsorship for several of its sections. Greater visitation is the key, and it will likely come as the result of more people becoming aware of our website, and the continued posting of quality content that puts geo heat pumps in a central position to pivot the nation's interest toward completely green building options.

The Board authorized President Bill to complete two documents for potential approval at our January meeting. One was this very document as a 2016 Progress Report for the Association. The second was a condensed history of CaliforniaGeo from its 2012 beginnings.

The Board reluctantly accepted Terry Shewchuk's resignation as Board Secretary in our December 9th meeting. As of 1/1/17, he will be replaced by Board member Kevin Oxley.

We received word from The Geothermal Exchange Organization that lack of congressional action to insert geo tax credit renewals into the government's financial extension bill had failed. <u>The details</u> were circulated by GEO President Doug Dougherty early in the month.