

IN THE LOOP

The latest news and updates from the Ontario Geothermal Association

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SUSTAINING PARTNERS



AECON



President's Message

GEO EMERGES FROM THE UNDERGROUND

For anyone in the geothermal heating and cooling industry, and the broader construction and urban planning fields, this is definitely the right time to be talking about decarbonizing buildings with clean operating ground source or water source systems.

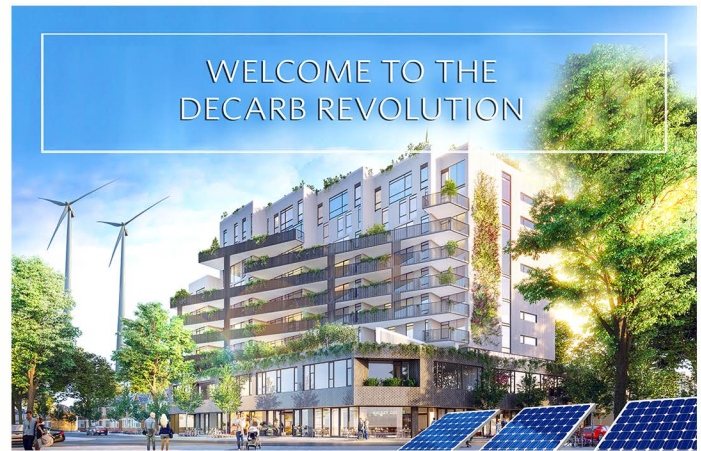
Those of us who have long experience with this technology are pleasantly surprised by the explosion of recent interest. I feel like we have long been hoping for the day when geo could go mainstream, and the Ontario Geothermal Association has been preparing for many years.

This is definitely the right time to be talking about decarbonizing buildings

This year our conference is skewing toward urban and commercial projects because these areas seem to be the busiest. However, reports from around North America are indicating that geothermal heating and cooling is also penetrating in numerous settings beyond urban centres.

LOCAL GOVERNMENTS

Whether we are talking about city, suburb, country, residential, retail, industrial or institutional projects, the shift is being driven by public concern about carbon emissions and by regulations and incentive programs that address that concern at the provincial, state and municipal levels. As an industry, our advocacy work has been paying off. Please see page 5 for notes on government relations from Martin Luymes, and page 6 for briefs on exciting projects around North America, which demonstrate deep building decarbonization in action.



BIG CONFERENCE BUZZ

Please have a look at pages 3 and 4 for details on our wonderful conference speaker lineup, that includes municipal planning people, developers and industry figures. They will provide government decarbonation policy processes and case examples of geothermal installations.

The excitement surrounding this conference seems higher than it has been for a few years, with high level expertise, more sponsors and exhibitors, and a robust quality of participants. Welcome to the 2020 version of our geothermal conversation!

The OGA also is strengthening beyond the conference. This year we enhanced our communications and advocacy teams, and created an initiative called the Sustaining Partner Program to help stabilize those upgrades. My own company is a supporter and we have also attracted a few other sponsors for our year-round efforts. There are some good branding benefits for anyone who might consider being part of the SPP. Please reach out to the OGA's Paul Frith for more information.

*-Stanley Reitsma
President and OGA Chair*

Excitement builds for OGA Conference April 8 - 9

REGISTER NOW!

Our OGA conference and the geothermal industry are experiencing a significant surge in interest in 2020, as governments, construction leaders and others tackle decarbonization strategies and learn about clean running, healthy and comfortable geothermal heating and cooling.

At the same time remedies have been implemented for many of the obstacles previously facing builders, and they are happy to have found a technology they can rely on to meet the coming regulatory requirements and help solve our climate change challenge. Both municipal and building professionals will be in attendance at this year's "Down to Earth" event, which kicks off with Alex Blue and Fernando Carou delivering the keynote address at the opening night gala on April 8. The theme for the evening will be Decarbonizing our Cities as Alex talks about the BC Step Code and Fernando provides an update on the Toronto Green Standard.

LIVESTREAM OF THE CONFERENCE

The Clean Air Partnership (CAP) is planning to live stream the OGA Conference so that municipal planners who can't make the trek to Mississauga can still listen in to the proceedings. CAP regularly provides educational and other programs and events for Canada's



municipal planning community. "We are grateful to CAP for partnering with the OGA to bring geothermal decarbonization solutions to more cities," said OGA President and CEO, Stan Reitsma.

THANK YOU TO THE CLEAN AIR PARTNERSHIP
OUR COMMUNICATIONS ASSOCIATE

Keynote: Decarbonizing our cities

A DOUBLE KEYNOTE SPEAKER BONUS AT OUR APRIL 8 GALA





DYNAMIC DUO KEYNOTERS

Alex Blue, P.Eng. LEED® AP BD+C, BEMP, Morrison Hershfield and
Fernando Carou, B.A.Sc, P.Eng., City of Toronto

For more details on our dynamic duo keynoters and the talk they will deliver at our opening night gala please visit the OGS web site by clicking [here](#).

SPONSORS


"On behalf of the OGA I also want to extend my heartfelt thanks to the many organizations who have stepped up as sponsors, exhibitors and content partners for this year's conference,"

THANK YOU TO OUR
CONTENT PARTNERS


City of Toronto
Morrison Hershfield
HRAI
FCM
City of Burlington
City of London
City of Oshawa
Oxley Wind
IESO
Peel Memorial Hospital

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OUR EXHIBITORS
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Chicago Geothermal
Drilling Solutions
Ground Heat
R. Mancini & Associates
Trinus Pipes & Tubes Ltd


**OGA Conference
SPONSORS**





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Preliminary conference agenda

AGENDA



A preliminary agenda has also now been released by the conference committee led by OGA Vice President Jeff Hunter. “We’re excited because our excellent speaker lineup of municipal planning people, developers and industry figures will provide detailed case examples of successful decarbonization policy processes, and geothermal installations,” said Hunter.

“We have high level expertise, more sponsors and exhibitors, and a robust quality of participants.” Welcome to the 2020 version of our geothermal conversation.



REGISTER NOW!

More information here.

<https://ontariogeothermal.ca/oga-conference-2020/>

Register today, right here.

<https://tinyurl.com/seght2k>

OGA Conference PRELIMINARY AGENDA



Time	Item	Speaker	Sponsor
Wed Apr 8			
5:30-6:30 PM	Reception	Stan Reitsma	
6:30-7:30	Dinner	Jeff Hunter & Paul Frith Co-Hosts	Opening Gala Courtesy of
7:30-8:30	Keynote	Alex Blue & Fernando Carou	GEOSOURCE ENERGY INC
8:30 - 8:45	OGA Communications	Bruce Nagy	

Time	Item	Speaker	Sponsor
Thurs Apr 9			
7:30-8:30 AM	BREAKFAST		Courtesy of VERSAPROFILES
8:30-8:40	MC Welcome	Jeff Hunter	
8:40-8:50	Opening Remarks	Stan Reitsma, President	
8:50-9:00	Advocacy	Martin Luymes, HRAI	
9:00-9:40	Incentives/support for municipalities	Marco Iacampo, FCM	
9:40-10:45	Panel: Cities & Climate Emergencies	Representatives from three Ontario municipalities	
10:45-11:00	BREAK		Courtesy of AECON
11:00 - 11:30	Highrise geothermal developer's perspective	Maurice Wager & Jennifer Burstein, Collecdev	
11:30 - 12:00	Research: geothermal vs. fossil fuels & electric resistance	Glen Estill, Oxley Wind	
12:00-1:00 PM	LUNCH		Courtesy of BEATTY GEOTHERMAL CONSULTANTS
1:00-1:30	AGM Ontario Geothermal Assoc	Stan Reitsma	
1:30-2:15	Skills & Education Update	OGA & others	
2:15-2:30	BREAK		Courtesy of AECON
2:30 - 3:00	IESO Annual Planning Outlook	Chuck Farmer, IESO	
3:00 - 3:15	Closing Remarks	Stan Reitsma, Geosource	

CONTENT PARTNERS



Oxley Wind Farm Inc.



Government Relations and Advocacy in Ottawa

FEDERAL BUDGET DISCUSSIONS

In August of 2019, HRAI again made a “pre-budget” submission to the Federal government that included some simple recommendations:

1. Fully fund the Market Transformation Road Map for Energy Efficient Equipment in the Building Sector.
2. Create the conditions for a successful low-carbon transition through funding for skilled tradesperson employment and skills development by
 - a. Establishing a Workforce Training and Adjustment Fund for Skilled Tradespeople that aim to retrain or learn new skills that will deliver low-carbon solutions
 - b. Providing direct support to contractors that offer funding for their employees to upskill and retrain through HRAI-delivered programs.
3. Explore a program of incentives for greater uptake of heat pumps (GSHP and ASHP) as the most energy-efficient, low-carbon method for heating and cooling of homes and buildings.
4. Re-interpret the federal tax treatment of investments by commercial building owners in improved energy performance by moving from a capital improvement to an operational expense.

These recommendations sat idle during the federal election campaign but, in January, the re-elected Liberal government resumed its budget deliberations. Last week, the federal Standing Committee on Finance made its final recommendations to the Minister of Finance. Though short on detail, some of the recommendations may be of special interest to OGA members. For example:

Recommendation 1: Adopt the recommendations of the Expert Panel on Sustainable Finance that are within federal jurisdiction and support other jurisdictions and the private sector to do the same.

Recommendation 2: Adopt a transparent environmental framework with legislated five-year GHG reductions targets to achieve net-zero emissions by 2050, and publish the government’s ongoing progress in mitigating the impacts of climate change.



Recommendation 3: Develop and implement a fully funded strategy to transition to a low-carbon economy, which would limit some of the most devastating impacts of climate change for our generation and those to come while putting justice for Indigenous people, workers and the least fortunate at the heart of the transition to a green economy.

Recommendation 50: Establish a program to provide home energy audits for homeowners and invest in home energy retrofits.

Recommendation 54: Make the investments necessary to significantly reduce the northern infrastructure gap to address the transportation, connectivity, energy, and climate-based challenges Northerners face.

Recommendation 55: Create a green renovation program with a commercial building component providing fiscal support that would cover both energy efficiency renovations and heating system electrification.

HRAI will be in discussions with relevant Ministries (principally NRCAN and Environment and Climate Change Canada) to ask for clarification and provide support as necessary if these make it into the final budget in April.

BENEFICIAL ELECTRIFICATION

HRAI has also been engaged with NRCAN in discussions around the potential impacts of electrification of heating systems across the country that will come if commitments to market transformation under the Pan Canadian framework are kept. NRCAN has offered to host a workshop for policy-makers and regulators in early April that will focus on the specific grid benefits that would arise from investments in ground source heat pump systems on a widespread basis. Members of the OGA will be invited to participate.

- *Martin Luymes*

Project News

7500 HOMES IN AUSTIN WITH GEOTHERMAL COOLING & SOLAR PV

The Whisper Valley project in Austin is for real. The first phase is now complete, banks are financing them and Austin homebuyers have been snapping them up. Each home has a geothermal borehole in the back yard, a ground source heat pump inside, and solar photovoltaic panels on the roof. Home batteries are an optional extra, although the third party energy service contractor is considering the possibility that they will also be standard in future phases.



“The changes that we need to make in this industry are not huge, they’re not impossible, and they can be embraced by all developers, all builders and all cities,” said Douglas Gilliland in February. He is the President of Taurus of Texas, the developer of the project. He added that the first few hundred homes had proven that clean energy can be provided at scale, and for people of ordinary means. At about 1700 square feet, the new houses cost \$300k or \$400k and are being purchased by people as their first or second home, or by empty nesters.

The big news from Gilliland’s point of view is that the developer has created a replicable technical and economic model with which at least five different (large production) builders are finding it extremely easy to work. “They can just bring their normal floorplans and they don’t have to adapt too much to build these homes and sell these homes.”

He says that the sustainability features and high tech smart home package together add \$20 per square foot or about 10% to the cost of the home, and there has been no difficulty getting accurate appraisals by finance companies. “The mortgage companies are now completely embracing green homes.”

DANDELION NY UPDATE

The latest news from New York State offers similar good news on the growing popularity and accessibility of geothermal to average homeowners. Dandelion is a Google/Alphabet company that adds geothermal mostly to existing single family homes.

The company was launched with some fanfare a few years ago and has also received publicity for some successful capital fundraising rounds.

We learned recently that Dandelion is also a real deal. It has created a retrofit model that is a little less costly than usual, can be financed by Dandelion, and is supported by generous New York and federal incentives. In the last two years Dandelion has installed hundreds of systems and it appears that it has also sold “more than a few hundred” additional systems, which the company hopes to install in the coming year. It is hiring and expanding and considering offering their service in additional US states.

This is excellent news for the geothermal heating industry and welcome information for environmentalists, because it verifies that geothermal is an economically viable solution to our building retrofit challenge.

Geothermal for Toronto condo helps first-time buyers

"We've all read media stories suggesting home ownership for first time buyers is out of reach in Toronto," says Maurice Wager, President of Collecdev development company. "We wanted to change that. With stricter mortgage rules, we knew it wasn't going to be easy."

One-bedroom downtown condos start at more than \$500,000 and may require a 20% down payment. Banks look at purchase price, condo maintenance fees, income and debt load, when qualifying buyers. This makes it difficult even in the less expensive suburban areas. "Geothermal heating and cooling is premium quality and uses about 70% less energy, and produces less greenhouse gas than traditional systems," says Tim Weber of Diverso Energy in Waterloo, Ontario. "It should work in any kind of building, but it took a while to figure out a successful model for developers."

"Diverso introduced a unique proposition that unlocks the potential of geothermal to be more widely adopted," says Wager. "They bring technical expertise and they have layered a financing element on top." Diverso and its partner EO Electric in Montreal developed a 'utility model' under which they build, maintain and operate a project's geothermal system for 30 years, after which the condo owners can choose to buy it. This reduces capital costs, eliminates the developer's budget and technical challenges, and also helps the condo owners corporation.



Jennifer Burstein and Maurice Wager from condominium developer Collecdev will talk about several projects at the OGA conference in April.

At Westwood Gardens in Richmond Hill, Collecdev is building 370 condominium units. "The geothermal ground loop consists of 144 vertically drilled boreholes, producing enough energy to support the heating and cooling of the entire building", says Collecdev, Vice President of Construction, Jennifer Burstein.

By law condo owner corporations must use owner maintenance fees to pay operating costs and also carry reserves for long-term capital upgrades. This can be problematic with gas heating. Gas is traded on the global commodities market and prices can be volatile, often spiking when the economy weakens and employment becomes unstable. "Our model replaces unpredictable variables with one fixed cost," says Weber.

At Westwood Gardens, our focus was to ensure we could offer residents predictable monthly maintenance costs to ensure the long-term value of the building says Collecdev, VP of Sales & Marketing, Natascha Pieper. "We needed to ensure the units were designed efficiently and that both the first-time buyer and downsizer market segments could see the value this community offers - especially against the backdrop of the industry's record-breaking quarter - Q2-2017. As a result, all 370 residences were successfully sold. Buyers saw the intrinsic value in the geothermal system which reduces the overall carbon footprint of the building by 70%, EV Charging Stations and several sustainable initiatives that are captured under Toronto Green Standards Tier 2 (the equivalent of LEED Gold)."

PROJECT INFORMATION

Customer
Collecdev residential developer, Toronto

Project
Westwood Gardens, Richmond Hill, 370 units

OGA member - Installer
Diverso Energy, Waterloo, Ontario

Tech details
144 boreholes, ground source heat pumps, ERVs

Utility cost & greenhouse gas savings
Approximately 70%

Join our Sustaining Partner Program

The OGA is pleased to announce brand partnerships under our Sustaining Partner Program, a new initiative providing additional sponsorship opportunities for members and year-round stability for our professional organization.



Under the program brands receive brand exposure, ads and editorial profiles on our web site, social media sites, In the Loop newsletter, Down to Earth bulletin and email campaigns.



It's an excellent opportunity for precise targeting and cost-effective marketing. Join our Sustaining Partner Program today by contacting Paul Frith at 647.287.5554 or Jeff Hunter at 519-854-8986.

Free E-Newsletter Subscription

Keep up-to-date on changes to the industry. Sign-up for our monthly e-newsletter by e-mailing office@ontariogeothermal.ca.

OGA Membership

Take advantage of member benefits such as province and nation-wide recognition on HRAI's online contractor locator, discounted OGA conference rates, exclusive industry deals & HRAI news updates. Learn more [here](#) or get in touch by contacting 1-(800) 267-2231 or sales@hrai.ca.

New & Current Members

Check out our list of current OGA member companies and brand new member recruits [here](#).

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More Information

Contact office@ontariogeothermal.ca for more information on the Ontario Geothermal Association.

Association Partner

