

IN THE LOOP

The latest news and updates from the Ontario Geothermal Association

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Year End Letter from HRAI President & CEO



Good bye 2020.

I have little doubt that I am not alone when I breathe a sigh of relief as we leave 2020 behind us. The recent news of a vaccine that brings an end to this pandemic is indeed a relief.

Few parts of our lives have been untouched by this pandemic. Business and incomes have been impacted, school schedules

disrupted, travel plans obliterated and social lives put on hold for the better part of a year. So many of us missed important life events that can never be replaced, some of us have lost loved ones causing immense personal pain. It has been a tough year.

Let's look forward to a better year in 2021.

I have been speaking to member companies across the country throughout the pandemic and I am pleased to report that for the most part the HVACR sector has performed well during these difficult times. There is no doubt that some firms have seen a decline in business, most are performing very well some have even had record breaking years and most see a bright outlook for 2021.

For HRAI, the early days of the pandemic were tough, the cancelation of CMPX was a hard financial hit but since then we have been recovering and find ourselves in a better financial position that we expected at this point in time. We are in the process of filling vacant positions and re-establishing member services that were placed on hold earlier this year.

At the onset of the pandemic, our Government Relations team geared up to send a strong message to government that our sector needed to be considered an essential service. This approach has proven most successful over these past eight months. Throughout this crisis we have not reduced our commitment to our government relations efforts. The team continues to work tirelessly on behalf of our members at all levels of Government, most recently participating in budget submissions both federally and provincially.

In our federal budget submission HRAI called for investments in home and commercial building retrofits as an effective way to achieve reductions in energy use and carbon emissions. The association has also consistently referenced the importance of framing these investments to align with the Market Transformation Roadmap that has been supported by provincial governments across the country. Among other things, this plan calls for policies that ensure a smooth transition in the workforce to meet the emerging needs of a low carbon economy. The key now will be to work closely with the government(s) to ensure initiatives work well for the HVACR industry members while effectively achieving their policy goals.

We are pleased to report that Ottawa has been listening:

On Monday, November 30th, Minister of Finance Chrystia Freeland tabled the Fall Economic Statement entitled Supporting Canadians and Fighting COVID-19, a spending plan that looks to support Canadians during the continued COVID-19 pandemic and support Canada's economic recovery. The plan includes several measures that will affect the HVAC sector, most notably a commitment to support home energy retrofits (as proposed by HRAI) though details remain to be communicated

On Friday, December 11, Prime Minister Justin Trudeau, Minister of Environment Jonathan Wilkinson, Minister of Infrastructure and Communities Catherine McKenna and Minister of Canadian Heritage Steven Guilbeault, announced Canada's long-awaited new climate plan, which includes a host of measures aimed at achieving Canada's 2030 emissions targets and achieving net-zero greenhouse gas emissions by 2050.

The plan, entitled a Healthy Environment and a Healthy Economy, aims to create two million green jobs and commits \$15.2 billion on top of the \$60 billion previously allocated to implement the Pan-Canadian Framework on Clean Growth and Climate Change.

Throughout the climate plan, the federal government notes that it will consult with key stakeholders, including businesses and industry representatives, as the objectives of the plan are further laid out and implemented. HRAI has been in regular contact with NRCAN and Environment and Climate Change Canada and will be actively involved in consultations on programs affecting the HVACR industry as these get rolled out.

Another of our recent activities is the creation of a Canadian Expert Advisory Panel on Indoor Air Quality in commercial and institutional buildings. With businesses, educational institutions and governments all trying to understand the most efficient and safest ways to return to near-normal conditions that will support the social and economic well-being of Canadians over the months ahead, this group will produce easy-to-use and understand materials on the best practices currently in place to limit the transmission of COVID-19 through HVAC systems

HRAI continues to focus on a future with an eye to improved energy efficiency, a low carbon environment and a changing landscape for refrigerants. We believe the future is bright for the HVACR industry in Canada.

And as the year closes I would like to announce that we are moving. It was just 4 years ago that HRAI moved to its current location at 2350 Matheson Blvd E., Mississauga. These past 7 months have been challenging for all businesses. With HRAI's fast and furious pivot to virtual networking, meetings and event execution, we felt it was the right time to take a hard look at how to be even more fiscally responsible and ride the pandemic wave into calmer waters.

We identified that our office space was just too large to justify our needs. We took a look at space needs for staff, as well as identified what space is no longer needed.

I am pleased to announce that with a sympathetic landlord, and a diligent focus by staff, we have secured a new space. This new space meets our current needs, with a little room to grow, saves on rental fees, and is not too far from our current office. The new office location is at 2680 Matheson Blvd E., Suite 100, Mississauga, ON, L4W 0A5.

We take possession of the new location January 4th 2021. Please make note of the new location in your records.

Good bye to 2020, hello to 2021. Season's greetings to all.

Sandy McLeod
HRAI President & CEO

City of Toronto GHG Inventory Report



Toronto releases 2018 Greenhouse Gas Inventory report, on track to exceed 2020 target of a 30% reduction in GHG emissions.

Earlier this month Toronto released the 2018 GHG Inventory report which tracks the city's progress towards GHG reduction targets and identifies key emissions sources.

2018 GHG Inventory Highlights:

- Buildings – residential, commercial and industrial – were the largest source of emissions in Toronto, accounting for about 55 per cent of total community-wide emissions. Natural gas, the fossil fuel used to heat buildings, continues to be the largest source of emissions community-wide, accounting for approximately 50 per cent of Toronto's total GHG emissions.
- Community-wide GHG emissions were 16.2 megatonnes (MT) eCO₂ in 2018, which is 37 per cent lower than in 1990. Toronto is on track to exceed its 2020 target of a 30 per cent reduction in GHG emissions.
- Community-wide emissions increased seven per cent over 2017. The increase was due to two factors: cooler winter temperatures that drove up natural gas usage in buildings by about 10 per cent and a sharp increase in the emissions factor for electricity. In 2018, the province increased its use of carbon intensive natural gas to generate electricity to compensate for a reduction in nuclear power generated electricity, which stemmed from the refurbishment of some nuclear power plants.

Find full details here: <https://www.toronto.ca/news/city-releases-its-2018-greenhouse-gas-inventory-toronto-on-track-to-exceed-2020->

Two pilot projects in Massachusetts will attempt to deploy geothermal heating across entire neighborhoods.

The first pilot is slated for the Merrimack Valley, an area in northeastern Massachusetts hit by a series of gas explosions and fires in September 2018 that federal investigators blamed on inadequate management by Columbia Gas. The \$56 million settlement the company agreed to this fall included \$4 million to implement a geothermal test project.

A second project is being developed by utility Eversource, which plans to spend \$10.3 million constructing a district geothermal system in a densely populated, mixed-use area that has not yet been selected.

Read the full article here:

<https://energynews.us/2020/12/03/northeast/innovative-geothermal-micro-district-concept-moves-ahead-in-massachusetts/>



HRAI's Post-OCOT Consultations: More to Come!

Contractors, wholesalers, manufacturers and industry trade press from across Ontario shared their insights, concerns and ideas with HRAI during three consultation sessions on December 16.

The consultation sessions focused on a variety of questions of importance to the HVACR industry concerning approaches to skilled trades and apprenticeship. Specifically, Governance of the skilled trades, Enforcement and compliance, Portable skill sets, and Fee setting.

While the input from members is being reviewing and analyzed, one thing that is immediately clear is that members have more to say about these critical issues. Accordingly, in 2021, HRAI will set up additional opportunities to discuss these issues in more depth. Stay tuned for details regarding the date, time and format of the next consultation sessions.

To the approximately 100 members who registered and shared their thoughts, thank you for taking the time to contribute to these discussions. Look for information about dates and times for additional consultation in the near future.

Contact Dorothy McCabe, Government Relations Specialist – Ontario at 1-800-267-2231 ext. 274 or email dmccabe@hrai.ca.

Geosource Energy: A Canadian geothermal leader since 2004



A laser sharp focus on delivering geothermal energy. Just one of the reasons why Geosource Energy has evolved into one of Canada's leaders in the implementation of commercial geothermal energy systems, but a big one at that. Established in 2004, Geosource was founded on the principles of tackling climate change to reduce carbon emissions and formed a vision to bring renewable heating and cooling energy, quite literally, to the surface. This singular focus has led to technical leadership and innovation, and a deep understanding of the critical link between system design and drilling know-how, and the kind of cost/schedule equation that results in superb project delivery for their clients.

As the construction world ramps up to decarbonize our future, very few geothermal energy firms can be found that have developed a deeper knowledge of geology and real-world building projects. This means project leaders can trust Geosource to head off challenges early, by relating the site conditions to the best options for drilling technique, schedule, and cost. Whatever the locale, geology, building type, sector, schedule, or budget, the Geosource team has been there and seen it before.



The company is currently constructing two of the largest geothermal fields in the country: King's College Circle at University of Toronto and Newfoundland's Corner Brook Acute Care Hospital. In both cases the scale is unprecedented, and the challenges are somewhat new. King's College Circle is essentially a massive retrofit of a complex of heritage buildings, with all the requirements that revered architecture and contemporary landscaping demand. Corner Brook is located on rock that tends to cause high hole deviation which creates some formidable difficulties for hole intersection and tool break-off, that might rattle a less experienced drilling team.

The university has redesigned King's College Circle to be a vehicle-free artistically landscaped pedestrian area, with a parking facility beneath it, and below the parking structure 374 boreholes drilled to a depth of 246 metres (810 feet). Angled drilling has been proposed here to get all the boreholes within the building footprint – leading to simplified construction and a reduction of overall mechanical costs by approximately \$250,000.

The Corner Brook Hospital is located under a future surface parking lot, with 375 boreholes to a depth of 600 feet. It will provide 100% of heating and cooling to the 600,000 square foot, seven-story medical facility. In this case geo-exchange brings clean greenhouse gas-free electrification to a region where the only real alternative would have been oil-fired boilers.

These are just two of the many projects Geosource manages each year. It also recently completed work on the Trend Condominium in the Waterdown community in Hamilton and the Peel Memorial

Hospital in Brampton. The condominium required three separate geo fields under three separate towers, serving 785 residential units. One of the challenges of this project involved the presence of an unusual number of very large boulders embedded in the site. The Brampton hospital also required innovative thinking because within the bore field area, there were several utilities that needed to be avoided.

One of Canada's largest general contractors, PCL Construction immediately thought of Geosource and brought the company in, knowing that its expert team would employ their tried-and-true angled drilling technique to avoid those utilities all together. PCL's trust in Geosource was galvanized after the successful delivery of the Brampton hospital. The result was an invitation to partner on the construction of the P3 project in Corner Brook, and other future P3's across Canada.

As Geosource continues to press on technical innovation and construction process refinements, in-house engineering design and utility financing structures are now also part of their practice. By bringing design and finance back into the drilling space (rather than the reverse) Geosource now offers developers and builders a seamless, nimble, vertically integrated team with unparalleled expertise, and a calm, creative approach to solving problems.



Kings College Circle at University of Toronto, Corner Brook Acute Care Hospital in Newfoundland, Trend Condominiums in Hamilton, and Peel Memorial Hospital in Brampton.



BORE MORE, BURN LESS.

Geosource Energy is a leader in the design and implementation of geothermal energy infrastructure with an unblemished track record of system performance. Our 17 years dedicated to innovation and delivery of on-site renewable geothermal energy has resulted in our ability to bring the most reliable expertise, deliver the most resilient construction methods and materials, and a readiness to implement our technology at every turn. We pride ourselves on quality workmanship and superior client servicing helping our partners achieve exceptional long-term operational cost savings while meeting their low carbon goals.



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OGA Communications

The OGA Communications team needs your help! We are always looking for industry related content and stories. Engage with us on one of our social channels (below), share your experiences in geothermal, connect with our community.

If you'd like to contribute content to our monthly newsletters please email Jeff Hunter:

jhunter@gpainc.ca

Happy Holidays and Best Wishes for 2021!

E-Newsletter Subscription

Keep up-to-date on changes and activity within the industry. Sign-up for our monthly e-newsletter by visiting our website: www.ontariogeothermal.ca or emails us: 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 by contacting 1-800-267-2231 or sales@hrai.ca

Association Partner:



Check us out on one of our channels:

