

March 2021



# IN THE LOOP

THE LATEST NEWS AND UPDATES FROM THE ONTARIO GEOTHERMAL ASSOCIATION



## IN THIS ISSUE

### In the News

The last few months have featured many great articles and webinars in the media, here's a few not to miss this month!

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### Advocacy @ OGA

The OGA Advocacy committee is hard at work, promoting, educating and advocating for Canada's geothermal industry. Check-out what we've been up to recently.

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### Training @ OGA

Upcoming training sessions related to geothermal that are not to be missed!

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## Partner Spotlight:

### Aecon GeoExchange Solutions Inc.

*At Aecon GeoExchange Solutions (AGS) Inc. we are a total solutions provider uniquely positioned in the GeoExchange market to serve commercial, institutional, and industrial clients in Canada. Through our industry-leading experience, AGS has amassed an intimate knowledge of project execution and risk management expertise, bringing peace of mind to our trusted clients in the burgeoning GeoExchange market.*

— page 4



GeoExchange  
Solutions Inc.



## IN THE NEWS



### Why geothermal is a hot trend in new condos

Jon Mesquita from OGA member company Diverso Energy along with Martin Luymes HRAI Vice-President of Government Relations and OGA President Stan Reitsma are quoted in this CBC article that highlights the growth of Geoexchange technology in condominiums. They discuss a few reasons why condos are turning to Geoexchange systems more and more, they include:

- Green Building Regulations
- New ways to pay – innovative financing and utility models
- Immediate energy cost savings and increased usable floor area as some rooftop equipment eliminated

► READ THE FULL STORY HERE:

<https://www.cbc.ca/news/technology/what-on-earth-condos-geothermal-canada-jays-climate-change-1.5910570>

### Home renovations are the focus of a Canada-wide Net Zero pilot project

The Toronto Star details a recent NetZero retrofit project that incorporates a Geothermal heating system. Common features of NetZero and NetZero ready homes are air-tight and highly insulated walls, high performance windows, improved ventilation with heat recovery ventilators, and high-performance mechanical systems, in this case a Geothermal Heat Pump. The article briefly introduces PACE (Property Assessed Clean Energy), a financing tool that a number of Canadian municipalities have started to introduce. Toronto's version is called the Home Energy Loan Program, look out for more info on PACE soon.



► READ THE FULL STORY HERE:

<https://www.thespec.com/ts/life/homes/2021/03/24/home-renovations-are-the-focus-of-a-canada-wide-net-zero-pilot-project>

**MUST  
WATCH**

## Geothermal Energy in Residential Construction

Green Energy that (finally!) works for developers. Join industry experts Smith + Andersen, Diverso Energy, Hullmark and Wilkinson Construction as they poke, prod and uncover the realities of Geothermal Energy in the construction sector.

This 1-hour panel discussion includes a general discussion about costs, technical design insights, construction and operational experiences and financing solutions.

► <https://www.youtube.com/watch?v=sTCLKIWARfo>



## IN THE NEWS *(continued from page 2)*

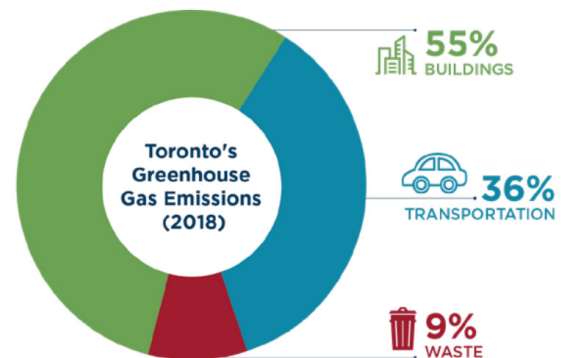
### City of Toronto, 2018 Greenhouse Gas Emissions Inventory Report.

The City of Toronto released its 2018 Greenhouse Gas Emissions Inventory Report in December. GHG Inventory Highlights include:

1. Community-wide GHG emissions were 16.2 megatonnes (MT) eCO<sub>2</sub> 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.
- 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.

Toronto must cut community-wide GHG emissions in half in the next 10 years to achieve the City's 2030 target of a 65% reduction, based on 1990 levels. To reach net zero by 2050 all emissions must be eliminated.

**Figure 3: Toronto's Greenhouse Gas Emissions (2018)**



► **READ THE FULL REPORT HERE:**

<https://www.toronto.ca/wp-content/uploads/2020/12/9525-2018-GHG-Inventory-Report-Final-Published.pdf>

## Advocacy @ OGA

### Ontario Energy Board Case File: EB-2020-0091, Enbridge Gas Integrated Resource Planning

The Ontario Geothermal Association has been following OEB proceeding EB-2020-0091 in regard to Enbridge Gas Integrated Resource Planning Proposal (IRP). On March 4th, 2021 the OGA submitted a letter of comment to be filed with the case documents of the proceeding. The OGA supports the development of a practical IRP framework that is consistent with public interest and accommodates Canada's plans for a low-carbon future.

► **READ FULL LETTER OF COMMENT HERE:**

<https://www.rds.oeb.ca/CMWebDrawer/Record/706638/File/document>

### Ontario Regulation 98/12 Proposal.

After consultation with industry, OGA President Stanley Reitsma submitted a letter to both the Ministry of Economic Development, Job Creation and Trade and the Ministry of Environment, Conservation and Parks. OGA/HRAI have been

actively pursuing discussions with both Ministries to review the regulation. In the letter Stan provided recommendations from industry on recrafting 98/12 to ensure it serves an effective purpose as a safety mechanism, meanwhile supporting the future growth of an industry vital to decarbonizing Ontario building stock.

► **MORE INFORMATION ON REGULATION 98/12 CAN BE FOUND HERE:**

<https://www.ontario.ca/laws/regulation/120098>

### OGA / Clean Air Partnership Webinar Recording – Geothermal 101 and Benefits of Electrification



Jeff Hunter from the Ontario Geothermal Association provided a presentation on background, business case and models of the geothermal heat pump sector and Martin Luymes from the Heating, Refrigeration and Air Conditioning

Institute of Canada (HRAI) presented the highlights of The Economic Value of Ground Source Heat Pumps for Beneficial Electrification study.

► <https://vimeo.com/519266139>

## PARTNER SPOTLIGHT



GeoExchange  
Solutions Inc.

*At Aecon GeoExchange Solutions (AGS) Inc. we are a total solutions provider uniquely positioned in the GeoExchange market to serve commercial, institutional, and industrial clients in Canada. Through our industry-leading experience, AGS has amassed an intimate knowledge of project execution and risk management expertise, bringing peace of mind to our trusted clients in the burgeoning GeoExchange market.*

### Total Solutions Provider

Leveraging our combined experience and long history in the Utility and District Energy industry Aecon saw GeoExchange as a natural fit for our utility and civil construction crews. AGS draws on Aecon's diverse expertise in the utilities sector, with more than 50 years of combined experience and a proven track record of success. Our comprehensive range of GeoExchange system installation goods and services and design assistance capabilities include:

- Vertical borehole drilling capacity
- Lateral piping connection (tie-in) expertise
- System flushing and purging equipment
- Anti-freeze installation, when specified
- System pressure and flow testing
- Construction and installation of mechanical manifolds
- Excavation and backfilling of required trenches
- Site supervision, coordination, and management
- Unparalleled bonding capacity
- Managing underground utility infrastructure for long-term success and stability
- A proactive Environmental Health & Safety (EHS) program

### Quality Management Systems

AGS undertakes every project with a consistent and professional approach, employing a rigorous Quality Management System (QMS) that adheres to the requirements of ISO 9001:15 and meets or exceeds all quality requirements pertaining to the scope of work, including all regulating authorities. Our leadership team is comprised of seasoned industry experts with proven experience and long-established relationships in the Canadian marketplace.

### Strategic Partnerships

AGS promotes the development of strategic alliances and sustainable partnerships that enable growth opportunities, enhance expertise, and positively impact the strategic priorities of all partners and stakeholders.



AGS works collaboratively with:

- Clients
- Employees
- Subcontractors
- Strategic Vendors
- Shareholders
- Statutory & Regulatory Bodies
- Local Communities
- Indigenous Communities
- Unions & Trade Associations

### Our Approach

AGS employs a comprehensive approach to each new contract that addresses the complete project lifecycle, and identifies risk, safety, quality, schedule, scope, and cost management as critical keys to success. Challenges are resolved through internal expertise, our quality subcontractors, and leveraging industry best practices.

AGS' project plan management process ensures that planned activities are carried out in an effective and efficient manner while ensuring measurements against project plans, specifications, and the original project concept continue to be collected, analyzed, and acted upon throughout the project lifecycle.

### Dedicated Drilling Fleet

AGS is proud and excited to welcome the latest additions to our drilling fleet: two custom built GeoExchange dedicated rigs, designed and built by the German manufacturer Hütte Bohrtechnik GmbH, a global leader in drilling technology.

*AGS is dedicated to providing professional and expert services to our clients, ensuring their satisfaction by completing projects on time and on budget. Please visit us at [aecon.com/geoexchange](http://aecon.com/geoexchange) for further information.*



# Building Officials Guide to Inspecting Air & Ground Source Heat Pumps

## Inspecting GHP+GSHP

8:30am - 4:30pm EST

\$299.00/person + applicable taxes

For group rates, please contact  
[training@hrai.ca](mailto:training@hrai.ca) for more details.

Geothermal, a clean, renewable energy source, is gaining in popularity among home and business owners. Through geothermal heat pumps (GHP) or ground source heat pumps (GSHP) that harness this energy, are building officials ready to inspect this equipment?

In this course, Building Officials will become familiar with operations and processes when inspecting air and ground source heat pumps. Participants will learn how earlier versions of heat pumps operated. This will lead into a discussion of what makes modern system functionality more efficient in northern climates.

National and Provincial Building Codes will be referenced, as well as, an assortment of textbooks and instructional texts related to the history and operation of heat pumps.

Building Officials taking this course will walk away with a step-by-step procedure for inspecting air and ground source heat pump equipment during a home / business inspection, including reviewing full inspection report documentation.

About the Instructor: After serving in the US Navy nuclear power field, Jay Egg began a career in mechanical design engineering & contracting in 1990, and founded EggGeothermal in Florida to provide HVAC solutions to the public. Jay Egg is an author, expert consultant, speaker, and instructor specializing in renewable energy specifically for geothermal energy utility efforts and solar/geothermal exchange implementation.



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