

# IN THE LOOP

The latest news and updates from the Ontario Geothermal Association

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## DOWN TO EARTH

DECARBONIZING WITH GEOTHERMAL

OGA CONFERENCE  
APRIL 8-9 2020

HILTON MISSISSAUGA MEADOWVALE

SAVE THE DATE



## Save the date: OGA Conference April 8 - 9

### SAVE THE DATE!

Save the date April 8-9 for the next OGA conference! It will be held at the Hilton Mississauga/Meadowvale Hotel (previously the Delta). The Conference Committee is now well advanced, planning an exciting speaker line-up, sessions on innovative technologies, case studies, news from government, research, and new partnerships to advance the geothermal industry.

The committee was established a little earlier this year because there are continuing good announcements from cities and the Federal government about supporting the decarbonization of our building stock. The OGA is hoping to attract some municipal planners and other government and related NGO personnel to the event. As our members know very well, geothermal can provide the clean building solutions that governments are looking to support, and the OGA Conference is a perfect event for continuing that conversation between government people, geothermal and construction industry professionals.

“The committee is now finalizing speakers who will discuss projects and programs relating to the cost effective decarbonizing of the built environment, using Geothermal energy systems. “It is clear that developers, all levels of government, engineering consultants and architects are seeking a deeper understanding of how this clean technology is being used for multi-family projects, remote communities, institutional, government and corporate facilities, complexes and campuses,” says Jeff Hunter, OGA Vice President and Conference Committee Chair. “They want to know about business cases, funding models, operating costs and technical advantages.”

“We are talking seriously with the Clean Air Partnership about livestreaming the OGA conference to municipal planners across Canada,” says Paul Frith, a member of the committee who is



helping to plan the conference. He is expecting the speaker lineup to include representatives from the cities of Toronto and Vancouver, who have both established aggressive decarbonization goals and building standards; and are now in the throes of fleshing out implementation.

“Things are changing quickly in the construction industry in every region in North America,” says Hunter. “in addition to providing a great opportunity for our members to keep up with those changes and discuss best practices among ourselves, we are now seeing the OGA conference as something more. It’s a chance for government people and developers to learn more about the benefits of geothermal, including the quality of the heating and cooling provided, its long history of proven performance, and the many emerging models that are making it easier to manage the up-front costs.”

“This is a big year for the OGA and for our conference!”

# President's Message

## THE GOOD NEWS IS THERE TO FIND

This year 16 year old Greta Thunberg became an international environmental hero by focussing on action, speaking bluntly to power, and mobilizing millions of members of our younger generation. Her message can be summarized as: 'Adults have not acted decisively to make significant progress against greenhouse gas. We the young people are not going to take it anymore. The world is about to change. Become part of the wave or get out of the way.'

Greta's timing is perfect because despite a great deal of the negative news on the environment, many key solutions are now being advanced. They just need more momentum. Her movement seems to be making an impact with decision-makers.

**The world is about to change. Become part of the wave or get out of the way**

## TAKING ACTION

The world's leading banks, investment firms, insurers, corporations and city governments representing more than half the global population are now moving swiftly. We are decarbonizing. We are, for the most part, no longer relying on voluntary commitments. We're regulating change.

Jeff Hunter and our OGA Conference team are creating an event that will review numerous clean energy projects, initiatives and programs being introduced by the federal government and by municipalities across Canada. Many of the people designing the programs, creating the regulations and educating the public about them will be in attendance at the conference as speakers or as attendees. We should all take part in the clean energy conversation. Let's design the future together.

For many years the mainstream media has only supported the clean energy transition in a limited way, but that too is beginning to change. Just one example: an October article in Forbes Magazine, telling nearly one million readers about the benefits of geothermal heating & cooling.



## POLICY & REGULATION

Following October's election, in both the Speech From the Throne, and the Prime Minister's mandate letters to cabinet ministers, Canada's federal government has indicated action on cleaner buildings and transportation. Several policies have been announced in the past few years and Martin Luymes reports that in his talks with Ottawa there are strong indications that more support is going to be announced soon. Numerous large residential and non-residential geothermal projects are popping up all over Canada and the USA. See page 4 for more information.

Like many governments around the world, the UK government has mandated the end of fossil fuels systems in new homes by 2025 and the Scottish Government has gone further, announcing a £3 million second round of the Decarbonisation Fund to help landlords install technology to reduce carbon footprints like underfloor heating, ground source heat pumps and solar panels. It has also announced £17.6 million loan funding to support householders to make their homes more energy efficient.

**As we move into a new decade, it's the perfect time to start fresh and fully commit to decarbonizing the planet. Greta Thunberg is right. A lot of talk, not enough action. Let's step it up. Happy holidays to everyone and best wishes for 2020.**

*-Stanley Reitsma  
President and OGA Chair*





# Project News

## DURHAM COLLEGE GEOTHERMAL SYSTEM

During October Durham College celebrated the completion of its geothermal field and the grand opening of its Energy Innovation Centre (EIC), which provides clean, sustainable heating and cooling to the college's Gordon Willey building. This project is part of the ongoing transformation of Durham's energy infrastructure to support and implement sustainably focused initiatives on campus.

Said Marianne Marando, Associate Vice-President, Academics at Durham: "Not only will the Energy Innovation Centre work in tandem with our green initiatives to reduce the college's carbon footprint, but it will do so while providing our students with a unique living lab that offers both a self-guided learning experience for all students and experiential learning opportunities for students in select programs."

The EIC facility is organized in an exhibit-like way, so that visitors can learn more about geothermal through signage and interactive touch screen monitors, system diagrams and performance metrics. A real-time energy dashboard provides data on campus energy savings and the reduction of greenhouse gas emissions.

## EDMONTON NET ZERO GEOTHERMAL PROJECT

In Edmonton on the site of the former Edmonton City Centre Airport lands, the first phase of the Blatchford renewable energy utility is now up and running and houses are being built. Blatchford will be home to up to 30,000 Edmontonians living and working in a sustainable community that uses 100 percent renewable energy and is carbon neutral. The new Energy One Centre provides geothermal heating and cooling for the new development, with sewage heat recovery to be added later, plus PV solar panels, software and batteries for electricity generation and management.



A 570 borehole, 3 megawatt geoelectric field has been constructed, located under the future stormwater retention pond. It includes a one kilometre distribution piping system for phase one of the project. Associated Engineering is managing construction and contract administration.

## VIBRANT USA GEOTHERMAL MARKET

Geothermal seems to be becoming more popular in many parts of the USA. In Whisper Valley Texas the first stage of a pre-planned community will be to install a geothermal heating and cooling grid for some 7,000 homes.

We're also hearing reports on large geothermal community developments at Serenbe (near Atlanta), Norton Commons (northeast Louisville, Kentucky), and Pinewood Forest (Fayetteville, Georgia),

In Colorado two multifamily developments have been recently completed, Solaire and Elements at Prairie Center. The latter is a 288 unit project that has been sold to a property management company in Akron.

The latest news from New York State is that in Westchester County, Con Edison is planning a neighborhood retrofit project, involving 200 ground loops and heat pumps for single-family homes.

## Oil Replaced with geothermal on farm property

In the winter of 2006 Murray Schlotzhauer received a home heating bill of more than \$800 one month and began pondering the possibility that his oil furnace was not his friend. Then he noticed a mess on the basement floor, wiped it up, and realized that the black substance on the mop was oil.

He suspected it was leaking out of a crack in the firepot. After the last fuel bill, he didn't want to mention this to his wife, Heather, but the mopping up soon became too frequent. It was time for a conversation about how they were heating their country place near Stratford, Ontario.

"I'm just a poor hog farmer so I've got to watch my pennies," says Murray. "At one time I sat on the insurance board and I learned how many leaky oil tanks there were out there. People said geothermal created nice even heat; and provides air conditioning too."

Buchanan & Hall, an OGA member in the Stratford area helped them verify that geothermal would be a good investment for their property. The company used a mini-excavator to dig some 5-foot deep trenches and a header pit in the field near the house. They layed tubing in the trenches and connected it to a 5-ton geothermal heat pump.



*Murray Schlotzhauer, farmer, Stratford, Ontario.*

"Usually with my oil furnace they came every year to do an annual servicing, and then often, once more to fix something. After two years with the geothermal system I phoned Buchanan & Hall and asked about it. They sent someone over to look at the pressure levels and I received a bill for about \$100. Since then, nothing. It hasn't needed service. It just keeps on working year after year."

Rose Anderson, Engineer and Principal at Buchanan & Hall says that when properly installed, geothermal systems don't usually require maintenance. "They can be checked every few years, but it's simple technology that lasts a long time." Ground loop fields last 25-50 years and ground source heat pumps last 20-30 years. Modern systems are equipped with internet hookups so they can be monitored without even being on site. The numbers generally remain constant and systems rarely need attention.

What about cost? "Well now I spend about \$350 on electricity for heating and cooling, compared with \$800 or so previously for oil. This is a much better situation. Because don't forget," says Murray with a twinkle in his eye, "I'm just a poor hog farmer."

### PROJECT INFORMATION

Customer  
**Murray Schlotzhauer, farmer, Stratford, Ontario**

Project  
**Detached home near Stratford, Ontario**

OGA member - Installer  
**Buchanan & Hall Rosemary Anderson**

Tech details  
**5-ton heat pump, closed loop geothermal**

Utility cost & greenhouse gas savings  
**Approximately 56%**



## Check us out and follow us on our new OGA social media pages

We have now added some OGA online social media properties and a Youtube site containing OGA customer videos. In addition we have added a new partner to help with accelerated web site updates and more social media posting.

OGA Members and partner organizations are asked to check out these new pages and become followers. Please re-post some of the material you find on these sites, to your own social media.

### OGA LinkedIn

<https://www.linkedin.com/company/ontario-geothermal-association>

### OGA Facebook

<https://www.facebook.com/OGACanada>

### OGA Instagram

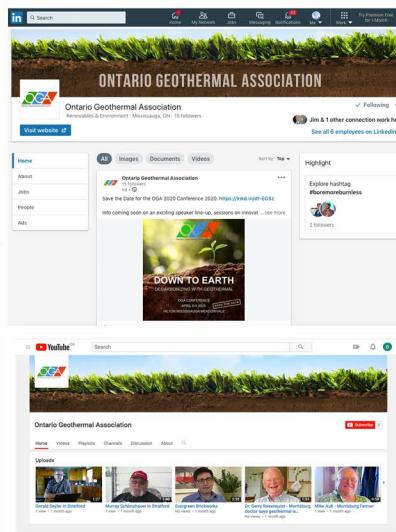
<https://www.instagram.com/OGACanada/>

### OGA Twitter

<https://twitter.com/OGACanada>

### OGA YouTube

[https://www.youtube.com/channel/UCAoJyrb3T1M75g6HgKaW6LA?disable\\_polymer=true](https://www.youtube.com/channel/UCAoJyrb3T1M75g6HgKaW6LA?disable_polymer=true)



## 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](mailto: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](mailto:sales@hrai.ca).

## New & Current Members

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

## Board Members

Get to know the OGA Board of Directors [here](#).

## More Information

Contact [office@ontariogeothermal.ca](mailto:office@ontariogeothermal.ca) for more information on the Ontario Geothermal Association.

## Association Partner

