NY-GEO Members & Conference Attendees,

Things have been moving briskly since we were last all together in April of 2018.

NY-GEO’s members have been hard at work, installing record numbers of Earth’s most efficient heating and cooling systems across the State. Simultaneously we’ve been working with Governor Cuomo’s energy team and New York’s utilities to pave the way for the electrification of New York’s heating sector.

As always, progress moves in a two step forward, one-and-a-half back fashion. To wit:

• Gas customers continue to get infrastructure built right to their house for free under New York’s “hundred foot rule”.
• Electricity delivery charges that don’t reflect costs continue to penalize geothermal customers, making other fuels look more affordable than they really are.
• Recent rate cases have taken only baby steps toward fairly integrating the advantages of renewable heating and cooling into utility programs.

To put things in perspective though, five years ago none of these points were under discussion. Today they have become a serious focus for State policy discussions. Furthermore New York State, with cooperation from the utilities, is taking remarkable steps that promise to move us past today’s roadblocks.

• In December, the Public Service Commission adopted an Energy Efficiency program with a carve out for heat pumps that will require utilities to install upwards of 83,000 systems in the next five years.
• In January, NYSERDA issued a heat pump report that documented thousands of dollars in net present value that each heat pump installation brings to all rate payers.
• In February, Con Edison pulled the public into a spirited discussion on moving forward in the absence of added gas capacity in Westchester County.
• In late March, utilities filed plans with the Public Service Commission designed to meet the PSC’s demand to move the heat pump market forward.

On the policy level, our combined efforts will be an important part of New York’s transition to renewable heating and cooling.

On the ground, continuing to install well designed, efficient systems that leave our customers comfortable and happy is the best guarantee that we will succeed in our mission.

We look forward to seeing you at next year’s conference on March 24th and 25th, 2020.

Bill Nowak
NY-GEO Executive Director
<table>
<thead>
<tr>
<th>ROOMS</th>
<th>TRACKS</th>
<th>Main Hall CONTRACTOR TRACK</th>
<th>Session Room 2 DESIGN TRACK</th>
<th>Session Room 1 FOCUS EVENTS</th>
</tr>
</thead>
</table>
| 10:00–11:00 | Contractor Incentives to Build Your Heat Pump Business: Rebates, Marketing Support, & Workforce Development Opportunities | The Old, the New & Everything In-between:  
PART 1: Designing Heat Pumps into New Buildings  
Presenter: Ed Lohrenz / GEOptimize Inc. | Geothermal 101:  
Ground Source Heat Pumps for Beginners  
Presenter: Jay Egg / Egg Geothermal |
| 11:00–11:30 | Welcome/Housekeeping: John Ciovacco / Board Member, NY GEO • Bill Nowak / Executive Director, NY-GEO  
Opening Remarks: John Franceschina, President, NY-GEO • Day 1 Keynote: Timothy P. Cawley, President Con Edison | Location: Main Hall  
Registration, Continental Breakfast & Mingling with Exhibitors | Location: Main Hall  
Welcome/Housekeeping: John Ciovacco / Board Member, NY GEO • Bill Nowak / Executive Director, NY-GEO  
Opening Remarks: John Franceschina, President, NY-GEO • Day 1 Keynote: Timothy P. Cawley, President Con Edison |
| 11:30–12:30 | Clean Heating & Cooling Community Campaigns: Partnering with Local Contractors  
Moderator: Sue Dougherty / NYSERDA  
Sam Wright / HeatSmart Ulster-Sullivan  
Jonathan Comstock / HeatSmart Tompkins  
Lauren Brois / HeatSmart Westchester  
Todd Fabozzi / HeatSmart Capital District  
Jeremy Koo / HeatSmart Mass | PART 2: Approach to Geothermal Conversion of Existing Buildings  
Presenter: Ed Lohrenz / GEOptimize Inc. | GeoStar Top Job Presentations  
MC: John Manning / Phoenix Energy Supply  
5 Finalists:  
Larry Lessard / Achieve Renewable Energy  
Hal Smith / Halco Energy  
Dan Silvestri / D. Silvestri Sons, Inc.  
Geoff Hoffer / Aztech Geothermal  
Jens Panikau / GroundUp |
| 12:30–1:30 | LUNCH & MINGLING with EXHIBITORS Sponsored by NYSEG and RG&E | NYSERDA Next Generation HVAC Program Highlights  
Moderator: Michael Genovese / NYSERDA  
Matt Davis / UNH / Kilfrost Anti-Freeze Evaluation  
Jordan Dentz / The Levy Partnership / Hybrid Heat Pump Controls  
Joseph Borowiec / NYSERDA  
Bob Carver / NYSERDA | Update on New York State Air Source & Ground Heat Pump Demonstrations  
Moderator: Scott Smith / NYSERDA  
Hugh Henderson / Frontier Energy  
Chong Lin / National Grid  
Richard Faesy / Energy Futures Group  
Jordan Dentz / The Levy Partnership / Hybrid Heat Pump Controls  
Zach Fink / ZBF Geothermal |
| 1:30–2:30 | Selecting the Right Distribution System for Heat Pump Customers  
Moderator: Joe Parsons / ClimateMaster  
John Abularrage / Advanced Radiant Design  
Hal Smith / Halco Energy  
AJ Heiligman / ACES Energy  
Sam Qualagari / Perfection Contracting | PART 3: Putting It All Together  
Presenter: Ed Lohrenz / GEOptimize Inc. | Update: Geothermal’s Role in Environmentally Beneficial Electrification  
Presenters:  
Jerry Acton / Physicians, Scientists & Engineers for Healthy Energy  
Bob Wyman / Consultant  
Erich Scherer / NYSERDA |
| 2:30–3:30 | Starting Up a Heat Pump is More Than Flipping the Circuit Breaker  
Presenter: John Manning / Phoenix Energy Supply | Evolution of Geothermal Through Campus Conversions  
Presenter: Ed Lohrenz / GEOptimize Inc. | |
| 3:30–4:30 | COFFEE BREAK & MINGLING with EXHIBITORS Sponsored by National Grid |
| 4:00–5:00 | The Connected Heat Pump: A New Cornerstone of Your Business  
Moderator: Zach Fink / ZBF Geothermal  
Brandon Hudson / Seerwise  
Amanda Schneck / WaterFurnace / Symphony Insight  
Geoff Hoffer / Aztech Geothermal  
Rob Sullivan / Ground Energy Support  
Ryan Carda / Dandelion Energy | How to Convert a Skyscraper to Geothermal  
Presenter: Jay Egg / Egg Geothermal | Update: Geothermal’s Role in Environmentally Beneficial Electrification  
Presenters:  
Jerry Acton / Physicians, Scientists & Engineers for Healthy Energy  
Bob Wyman / Consultant  
Erich Scherer / NYSERDA |
## WEDNESDAY, APRIL 10 • NY-GEO 2019 • DAY 1 • EVENTS CONTINUED

<table>
<thead>
<tr>
<th>Time</th>
<th>Location</th>
<th>Event</th>
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<tbody>
<tr>
<td>5:00–6:30</td>
<td>Main Hall</td>
<td>HAPPY HOUR &amp; MINGLING with EXHIBITORS Sponsored by GroundUp &amp; Enertech Global</td>
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<td>6:30–9:00</td>
<td>Main Hall</td>
<td>NY-GEO 2019 ANNUAL DINNER</td>
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<td>Welcome: Jack DiEnna / GEO-NII</td>
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<td>A National Perspective: Ryan Dougherty / GEO Exchange • Michael Albertson / IGSHPA</td>
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<td>NY-GEO Year in Review: Bill Nowak / Executive Director, NY-GEO</td>
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<td>Dinner Keynote: John B. Rhodes / Chair, NYS Public Service Commission &amp; CEO of the NYS Dept. of Public Service</td>
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</tbody>
</table>

## THURSDAY, APRIL 11 • NY-GEO 2019 • DAY 2 • EVENTS

<table>
<thead>
<tr>
<th>Time</th>
<th>Location</th>
<th>Event</th>
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<tbody>
<tr>
<td>7:30–8:30</td>
<td>Exhibitor Hall</td>
<td>Registration, Continental Breakfast &amp; MINGLING with Exhibitor - Sponsored by Con Edison</td>
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<tr>
<td>8:30–9:00</td>
<td>Main Hall</td>
<td>Welcome/Housekeeping: John Ciocacca / Board Member / NY-GEO • Bill Nowak / Executive Director / NY-GEO</td>
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<td>Opening Remarks: Donovan Gordon / Director of Clean Heating &amp; Cooling / NYSERDA</td>
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<td>9:00–10:00</td>
<td>Main Hall</td>
<td>PLENARY PANEL DISCUSSION</td>
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<td>Moderator: Janet Joseph / NYSERDA</td>
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<td>Panel: Bob Wyman / Consultant • Michael Albertson / IGSHPA &amp; GEO Exchange</td>
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<td>Radina Valova / Pace Energy &amp; Climate Center • David Logsdon / ConEdison</td>
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### ROOMS ➔ TRACKS ➔

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<thead>
<tr>
<th>TIME</th>
<th>ROOM</th>
<th>TRACKS</th>
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<td>10:00–11:00</td>
<td>Main Hall</td>
<td>CONTRACTOR TRACK</td>
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<td>Ground Source Mini Splits &amp; VRF: Ductless Solutions</td>
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<td>Paul Lundberg / Skidmore College</td>
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<td>Jared Fortna / Earth Sensitive Solutions</td>
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<td>11:00–11:30</td>
<td>Session Room 2</td>
<td>SUSTAINABILITY TRACK</td>
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<td>Utilities &amp; NYSERDA Collaborations to Achieve NYS Goals</td>
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<td>Moderator: Donovan Gordon / NYSERDA</td>
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<td>Rachel McCrea / National Grid</td>
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<td>Mark Scalfani / Central Hudson</td>
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<td>11:30–12:30</td>
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<td>FOCUS TRACK</td>
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<td>Geothermal 101: Ground Source Heat Pumps for Beginners</td>
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<td>COFFEE BREAK &amp; MINGLING with EXHIBITORS</td>
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<td>13:00–14:00</td>
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<td>LUNCH &amp; MINGLING with EXHIBITORS Sponsored by Diverso Energy</td>
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<td>Moderator: Bill Nowak / NY-GEO</td>
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<td>Stanley Reitsma / GeoSource Energy</td>
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<td>Richard Gerbe / Highmark (SHARC)</td>
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<td>Klaar De Schepper / Dutch ATES</td>
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<td>15:00–16:00</td>
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<td>Financing Low Carbon Campus Retrofits</td>
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<td>Jack DiEnna / GEO-NII</td>
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<td>Tim Weber / Diverso Energy</td>
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<td>Vinny Burke / Fordham University</td>
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Safe travel home. Please drop your reusable name tag off at the labeled collection boxes as you leave. SAVE THE DATE: MARCH 18 & 19, 2020 // SEE YOU NEXT YEAR!
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national grid

GROUNDUP

NYSEG	RG&E

DiVerso energy
**SESSION DESCRIPTIONS**

**Day 1 • Wednesday • April 10, 2019**

**Day 1 • Plenary Session**

**Welcome/Housekeeping:** Location: Main Hall  9:00–10:00 AM  
- **John Ciovacco, Board Member** / NY-GEO (Aztech Geothermal)  
- **Bill Nowak, Executive Director** / NY-GEO

**Opening Remarks:** **John Franceschina, President** / NY-GEO

**Day 1 Keynote:** **Timothy P. Cawley, President** / Con Edision

**Day 1 • CONTRACTOR TRACK**

**Contractor Incentives to Build Your Heat Pump Business:**  
*Rebates, Marketing Support, & Workforce Development Opportunities*  
Location: Main Hall  10:00–11:00 AM

Hear from the team at NYSERDA that designed, developed, and are implementing the heat pump rebate programs. Residential rebates for geothermal systems are $1,500/ton up to $15,000, and $1,200/ton up to $500,000 for commercial systems. NYSERDA will provide participating installers $500 per installed program-qualified air source heat pump system in residential sites, including single-family and multifamily buildings. In addition to providing a rebate for heat pumps, NYSERDA is supporting the renewable heating and cooling industry through a variety of programs. Come learn about marketing campaigns that enable you to receive CO-OP funding for incentives for municipal and commercial projects as well as incentives for R&D projects.

**Moderator:**  **Wendy MacPherson** / NYSERDA

**Panelists:**
- **Liz Markham** / NYSERDA / Ground Source Heat Pumps  
- **Kerry Hogan** / NYSERDA / Air Source Heat Pumps  
- **Scott Smith** / NYSERDA / Co-Op Marketing  
- **Robbie Adler** / Faraday / Customer Targeting Tool  
- **Adele Ferranti** / NYSERDA / Workforce Development  
- **Jonathan Tham** / PSEG Long Island

**Clean Heating & Cooling Community Campaigns:**  
*Partnering with Local Contractors*  
Location: Main Hall  11:30–12:30 AM

NYSERDA is currently funding Clean Heating and Cooling (CH&C) Community campaigns for 15 communities across New York State. In those communities, community-based organizations are performing local outreach to increase consumer education and awareness of CH&C technologies, reduce costs associated with purchase and installation of CH&C projects, and increase local adoption of CH&C technologies. The CH&C Community campaigns program also provides funding to grow the CH&C workforce and increase participation of low- to moderate-income (LMI) households. This session will give an overview of the CH&C community (or HeatSmart) campaigns in New York State, funded by NYSERDA, and the HeatSmart Mass campaigns, funded by the MassCEC.

**Moderator:**  **Sue Dougherty** / NYSERDA

**Panelists:**
- **Sam Wright** / HeatSmart Ulster-Sullivan  
- **Jonathan Comstock** / HeatSmart Tompkins  
- **Lauren Brois** / HeatSmart Westchester  
- **Todd Fabozzi** / HeatSmart Capital District  
- **Jeremy Koo** / HeatSmart Mass
Selecting the Right Distribution System for Heat Pump Customers

**Location:** Main Hall  
**Time:** 1:30–2:30 AM

While heat pumps are the go-to option to replace combustion heating systems – they are not boilers or furnaces. Heat pumps can produce plenty of heat – but at a lower temperature than their combustion counterparts requiring larger surface areas and/or different flow rates and run times. Should it be central ductwork with forced air or radiant floor heating? Ductless systems or high efficiency baseboard water? This session will showcase four experienced contractors sharing their experience with selecting the right distribution system for different heat pump systems with tips/pointers on how to ensure your system provides the maximum comfort and efficiency.

**Moderator:** Joe Parsons / ClimateMaster  
**Panel:**
- John Abularrage / Advanced Radiant Design
- Hal Smith / Halco Energy
- AJ Heiligman / ACES Energy
- Sam Qualagari / Perfection Contracting

Starting Up a Heat Pump is More Than Flipping the Circuit Breaker

**Location:** Main Hall  
**Time:** 2:30 – 3:30 PM

The success of starting up a heat pump is determined by the preparation prior to flipping the circuit breaker. From flushing and purging, to correctly wiring all the power and controls the “surprises” that may occur after flipping on the circuit breaker can be avoided. The preparation begins with performing all the appropriate design calculations, as well as simple QC checks to verify key aspects before turning on the power. After turning on the power there are many parameters that need to be checked before you can sign off and “turn the keys” over to the homeowner. Understanding and interpreting the various measurements are key to avoiding the costly “callback”. Mr. Manning will draw on his own “scar tissue” as well as from the hundreds of contractors he has worked with since becoming an incurable geojunky in 1982.

**Presenter:** John Manning / Phoenix Energy Supply

The Connected Heat Pump: A New Cornerstone of Your Business

**Location:** Main Hall  
**Time:** 4:00–5:00 PM

Every year more heat pumps are being sold or outfitted with remote monitoring and control capabilities. Customers are beginning to expect the convenience of making temperature adjustments from their mobile devices – even when they are home! When combined with datalogging, designers and installers have a powerful marketing tool for showing real system performance. But perhaps the strongest reason to install connected heat pump systems is how it changes the relationship with your customers, after the sale. What if over 50% of service calls requiring you to mobilize a technician could now be solved remotely? How would that change your business? This session will highlight examples of connected heat pump equipment and encourage a dialog about how to embrace this important technology shift.

**Moderator:** Zach Fink / ZBF Geothermal  
**Panel:**
- Brandon Hudson / Seerwise
- Amanda Schneck / WaterFurnace / Symphony Insight
- Geoff Hoffer / Aztech Geothermal
- Rob Sullivan / Ground Energy Support
- Ryan Carda / Dandelion Energy
Day 1 • Design Track

The Old, the New, & Everything In-between: Location: Session Room 2
PT1: 10:00–11:00 AM
PT2: 11:30 AM –12:30 PM
PT3: 1:30–2:30 PM

To get CEU credits you need to attend all three of the following sessions in succession but feel free to join in to individual sessions if you are not seeking CEUs. The three seminars are designed to acquaint HVAC engineers, geo-scientist, contractors, and building owners with cost effective ground source heat pump (GSHP) design for commercial/institutional buildings. The design methods integrate concepts familiar to most HVAC engineers (building heat loss/gain, zoning, ventilation air, etc.). Attendees will learn the characteristics of quality GSHP design and simple field measured indicators of successful operation.

Part 1 Designing Heat Pumps into New Buildings
Location: Session Room 2 10:00–11:00 AM

Building owners often ask architects / engineers about the feasibility of installing a geo system in their new building project. Often the response goes something like: “Well your building is about 80,000 square feet...you’ll need about a ton of capacity per 400 square feet...so about 100 tons of equipment. And for the ground loop you’ll need about 150’-160’ of borehole per ton...so about 15-16,000’ of drilling should be about right. Drilling is pretty expensive...probably about $20 / foot, so the ground loop will cost about $300-320,000. That’s pretty expensive and gas is pretty cheap these days...you might want to consider a gas boiler.” The question is, “How can you get reasonably accurate numbers?”

Presenter: Ed Lohrenz / GEOptimize Inc.

Part 2 Approach to Geothermal Conversion of Existing Buildings
Location: Session Room 2 11:30 AM–12:00 PM

Existing buildings are more challenging to convert to geo than designing a system for a new building, but combining an energy audit with detailed hourly energy modeling can result in a geo system that can be installed with a good return on investment. This presentation focuses on how this approach was implemented in three buildings in the City of Toronto ranging in size from 75,000-175,000 square feet that resulted in simple paybacks ranging from 3-8 years, reduced carbon emissions by 75-80%, and reduced energy consumption by 40-55%.

Presenter: Ed Lohrenz / GEOptimize Inc.

Part 3 Putting It All Together
Location: Session Room 2 1:30–2:30 PM

Existing college and university campuses present challenges for geothermal system designers with old existing and new buildings, the full gamut of mechanical systems and in some cases, existing district heating systems. Making it more difficult is the challenge of finding the space for needed to install the ground heat exchangers to make it all work. On top of the technical challenges somehow the numbers have to work. What’s the return on investment?

Presenter: Ed Lohrenz / GEOptimize Inc.

Evolution of Geothermal Through Campus Conversions
Location: Session Room 2 2:30–3:30 PM

Geothermal systems can help campuses reduce energy costs and become more environmentally friendly. At the same time the infrastructure requirements and process can be intimidating if the owner does not have experience implementing the technology. To understand the process, we will look at case studies to understand how to conduct a geothermal feasibility study, how installation is planned, and how to measure the return on investment/performance results.

Presenter: Jeff Urlaub / MEP Associates
How to Convert a Skyscraper to Geothermal

Location: Session Room 1   4:00–5:00 PM

This presentation will focus on overcoming some of the hurdles involved in electrification of skyscrapers and other large buildings in dense environments. Because most cooling towers, chillers, and boilers are located near the top floor of building, part of electrification requires that hydronic piping be run to the street level to utilize existing infrastructure as a heat sink and a heat source. There is a growing need for dewatering infrastructure such as below grade floors, parking garages, subway tunnels. These are operations that may be dual sourced for geothermal exchange. The session will cover some of these heat exchange strategies and opportunities such as waste water thermal energy recovery, and the thermal capacity of water mains, etc.

Presenter: Jay Egg / Egg Geothermal

Day 1 • Focus Track

Geothermal 101: Ground Source Heat Pumps for Beginners

Location: Session Room 1   10:00–11:00 AM

For those who are new to geothermal heating and cooling, this workshop will give you a basic understanding of the technology and its advantages. For those whose job it is to explain or sell GSHPs Jay’s colorful and compelling presentation will prove to be invaluable.

Presenter: Jay Egg / Egg Geothermal

GeoStar Top Job Presentations

Location: Session Room 1   11:30 AM–12:30 PM

The objective of the GeoStar Top Job Competition is to highlight and recognize the incredible talent, creativity and imagination that exists in geothermal system designers and installers. Additionally, to communicate to those outside the industry the variety of ways that geothermal heat pump technology can be applied. See pages 14-15 to learn more about the projects.

Master of Ceremonies: John Manning / Phoenix Energy Supply

Top Job Finalists:
- Larry Lessard / Achieve Renewable Energy
- Hal Smith / Halco Energy
- Dan Silvestri / D. Silvestri Sons, Inc.
- Geoff Hoffer / Aztech Geothermal
- Jens Ponikau / GroundUp

NYSERDA Next Generation HVAC Program Highlights

Location: Session Room 1   1:30–2:30 PM

Through a series of innovation challenges NYSERDA has identified technology gaps and market needs for the next generation of heating and cooling products to reduce greenhouse gas emissions from New York’s building stock. An overview will be provided on NYSERDA’s NextGen HVAC program, currently in its 3rd round, including presentations from two active projects.

→ Evaluation of Kilfrost GEO Anti-Freeze Performance in GSHP Closed Loop Fields
→ Hybrid Heat Pump Controls

The session will conclude with an open discussion of the identified needs within the marketplace, as well as an opportunity to define future challenges.

Moderator: Michael Genovese / NYSERDA

Panel:
- Matt Davis / UNH / Kilfrost Anti-Freeze Evaluation
- Jordan Dentz / The Levy Partnership / Hybrid Heat Pump Controls
- Joseph Borowiec / NYSERDA
- Bob Carver / NYSERDA
Update on New York State Air Source & Ground Heat Pump Demonstrations
Location: Session Room 1 2:30–3:30 PM

NYSERDA is conducting heat pump demonstrations at over 80 homes in New York. National Grid and NYSERDA are demonstrating on a 10-site district loop in Riverhead, NY. An update will be provided on installation status and the performance data collected to date.

Moderator: Scott Smith / NYSERDA
Panel:
• Hugh Henderson / Frontier Energy
• Chong Lin / National Grid
• Richard Faesy / Energy Futures Group
• Jordan Dentz / The Levy Partnership / Hybrid Heat Pump Controls
• Zach Fink / ZBF Geothermal

Update: Geothermal’s Role in Environmentally Beneficial Electrification
Location: Session Room 1 4:00–5:00 PM

New York Energy Transition Goals-Driven Perspective
The evolving NY State Energy Plan establishes goals for GHG emissions reduction, renewable electricity percentage, building energy use reduction, and improved energy efficiency. It is important to understand how all these goals are inter-related in order to evaluate the effectiveness of current strategies and policies. This presentation will show that if we meet the 40% by 2030 and 80% by 2050 GHG emissions reduction goals, we will exceed ALL of the other the currently established goals.

Presenters:
• Jerry Acton / Physicians, Scientists & Engineers for Healthy Energy
• Bob Wyman / Consultant
• Erich Scherer / NYSERDA

Day 1 • Annual Dinner Location: Main Hall

NY-GEO 2019 ANNUAL DINNER
6:30–9:00 PM

Welcome
Jack DiEnna / GEO-NII

A National Perspective
Ryan Dougherty / GEO Exchange • Michael Albertson / IGSHPA

NY-GEO Year in Review
Bill Nowak / Executive Director, NY-GEO

Dinner Keynote
John B. Rhodes / Chair, NYS Public Service Commission & CEO of the NYS Dept. of Public Service
Day 2 • Thursday • April 11, 2019

Day 2 • Plenary Session

Welcome/Housekeeping: John Ciovacco / Board Member / NY-GEO
Bill Nowak / Executive Director / NY-GEO

Opening Remarks: Donovan Gordon / Director of Clean Heating & Cooling / NYSERDA

PLENARY PANEL DISCUSSION  Heat Pumps’ Role in a Future Without Fossil Fuels
Heat pumps are being written into NYS policy as the principal alternative to fossil fuel heating & hot water for buildings. Responses to existing or planned natural gas moratoria have highlighted some of the challenges involved in a transition away from fossil fuels, and towards electrification. This panel will offer four (4) different perspectives on this transition as part of a necessary dialog of stakeholders in pursuit of a better future for NYS.

Moderator: Janet Joseph / NYSERDA
Panel:
• Bob Wyman / Consultant
• Michael Albertson / IGSHPA & GEO Exchange
• Radina Valova / Pace Energy & Climate Center
• David Logsdon / ConEdison

Day 2 • Contractor Track

Ground Source Mini Splits & VRF: Ductless Solutions
Thursday, April 11 • Main Hall
Ductless technology has taken the world by storm. New York didn’t get the memo! While ductless air conditioning and heat pump systems have been the fastest growing sector of heating and cooling systems in many parts of the world, for a variety of reasons the US has been slow to adopt this approach to HVAC. Advocates cite ductless HVAC as easy to install and require less fan energy than central air ducted systems. Ductless split systems offer targeted cooling and heating comfort to zones in residential and commercial buildings. These systems were frontrunners in multiple heating and cooling stages and variable fan speeds. In existing buildings with no central AC, a ductless system may offer the most practical solution to a zoned cooling system – and take over the heating as a significant bonus.

In this session we will hear from two equipment manufacturers, a system design firm, and facility manager relaying their experience with these increasingly popular systems.

Moderator: John Manning / Phoenix Energy Supply
Panel:
• Amal Humsi / Samsung HVAC
• Kyle Korman / Mitsubishi Electric HVAC
• Paul Lundberg / Skidmore College
• Jared Fortna / Earth Sensitive Solutions

Equipment Manufacturers Panel: Challenges, Opportunities and What’s Next?’
Thursday, April 11 • 11:30–12:30 PM • Main Hall
A key stakeholder in the transition to electrifying buildings in the Northeast are the heat pump manufacturers. In this session we will hear from leaders of the major heat pump manufacturers in specializing in the geothermal industry. Hear them share their thoughts on the status of the geothermal industry, their plans to support the projected growth in the heat pump market and/or any exciting product developments.

Moderator: Zach Fink / ZBF Geothermal
Panel:
• John Thomas / WaterFurnace International
• Steve Smith / Enertech Global, LLC
• Joe Parsons / ClimateMaster, Inc.
• Kyle Murray / Bosch Heating and Cooling
Improving Ground Loop Performance with Innovative Products

Location: Main Hall 1:30–2:30 PM

This session highlights innovative products designed to improve geothermal loop performance. Representatives will discuss applications of their products and reference the operating specifications and real-world performance.

Moderator: David Hermantin / RENU Engineering Technologies
Panel:
- Michael Reynolds / Kilfrost GEO
- Robert Jensen / Agreenability
- Jean-Francois Lavoie / Versaprofiles
- Chris McCaskill / AWEB Supply (Slim Jim Geo Lake Plate)

Day 2 • Sustainability Track

Utilities & NYSERDA Collaborations to Achieve NYS Goals

Location: Session Room 2 10:00–11:00 AM

New York State’s Investor Owned Utilities will present the heat pump section of their New Efficiency NY filing recently submitted to the PSC on 4/1/19. NYSERDA will continue to support existing heat pump programs through the end of 2019 to maintain continuity. The filing will set the stage for heat pump programs in New York from 2020 to 2025.

Moderator: Donovan Gordon / NYSERDA
Panel:
- William Xia / ConEdison
- Rachel McCrea / National Grid
- Charmaine Cigliano / Orange & Rockland
- Mark Sclafani / Central Hudson

The Benefits of Geothermal Heat Pumps to Regional Electric Grid

Location: Session Room 2 11:30–12:30 PM

Geothermal heat pumps are known for their ultra-high efficiencies for heating and cooling, and unparalleled environmental benefits. But they also rank near the top of a variety of important metrics important to electric utilities, such as peak shaving, grid utilization, distributed energy resource, energy intensity and carbon emission avoidance. This session will explain how broad deployment of geothermal heat pumps will bring broad gas and electric system benefits while at the same time significantly lowering cost for all ratepayers.

Presenters:
- Jens Ponikau / Buffalo Geothermal
- Catherine Griffin / Con Edison

Heat Pumps for Low- to Moderate-Income New Yorkers

Location: Session Room 2 1:30–2:30 PM

Energy burden remains a significant challenge for the household economies of low-to moderate-income (LMI) New Yorkers, and Clean heating and cooling (CH&C) has potential to reduce energy costs for these residents. CH&C can also produce non-energy benefits (NEBs) for LMI users, including health, safety, and comfort. However, high upfront costs and difficult access to credit have created barriers which have prevented nearly any use of CH&C in LMI residences. This session will discuss the solutions being explored by NYSERDA and partners to increase the use of CH&C to maximize its economic and social benefits.

Speakers:
- John Scicchitano / NYSERDA
- Scott Oliver / Pathstone Corporation
- Chris Carrick / Central NY Regional Planning Board
**Day 2 • Focus Track**  
Location: Session Room 1

**Geothermal 101: Ground Source Heat Pumps for Beginners**  
Location: Session Room 1  
10:00–11:00 AM

For those who are new to geothermal heating and cooling, this workshop will give you a basic understanding of the technology and its advantages. For those whose job it is to explain or sell GSHPs Jay’s colorful and compelling presentation will prove to be invaluable.

*Presenter: Jay Egg / Egg Geothermal*

**Innovative Thermal Exchange:**  
Location: Session Room 1  
11:30–12:30 PM

Each of these panelists were too good to leave out! Each has an innovative approach to thermal exchange and each is expanding the reach of the energy and environmental benefits of heat pump technology. GeoSource Energy combines drilling science and practical experience with angled drilling to minimize the area needed while maximizing the geo-exchange below a building. SHARC is capturing high grade thermal energy from wastewater and using heat pumps to return the energy to buildings. GI Energy has combined geothermal loops in the foundations of large buildings known as EnergyPiles™. Dutch ATES has sophisticated modeling and practical experience with aquafer thermal energy storage on a large scale.

*Moderator:  
• Bill Nowak / NY-GEO*

*Speakers:  
• Stanley Reitsma / GeoSource Energy  
• Richard Gerbe / Highmark (SHARC)  
• Tom Chadwick / GI Energy  
• Klaar De Schepper / Dutch ATES*

**Financing Low Carbon Campus Retrofits**  
Location: Session Room 1  
11:30–2:30 PM

Fordham University has teamed with Diverso Energy to start a campus wide initiative to a low carbon ground source conversion. Diverso Energy’s unique geothermal utility model coupled with strategic use of existing systems and re-allocating capital has allowed for a quick and efficient role out. The solution being implemented not only helps the school meet aggressive carbon and sustainability goals but has also provided a solution to replacing outdated HVAC systems while improving comfort and indoor air quality.

*Speakers:  
• Jack DiEnna / GEO-NII  
• Tim Weber / Diverso Energy  
• Vinny Burke / Fordham University*

**Day 2 • Top Job / Conference Closing**

**GeoStar 2019 Top Job Awards Ceremony / Conference Closing**  
Location: Main Hall  
2:30–3:00 PM

The objective of the GeoStar Top Job Competition is to highlight and recognize the incredible talent, creativity, and imagination that exists in geothermal system designers and installers. Additionally, to communicate to those outside the industry the variety of ways that geothermal heat pump technology can be applied.

*Master of Ceremonies: John Manning / Phoenix Energy Supply*
# Member Listings

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