



N Y - G E O 2 0 2 5

APRIL 23-24, 2025 | SARATOGA SPRINGS, NY



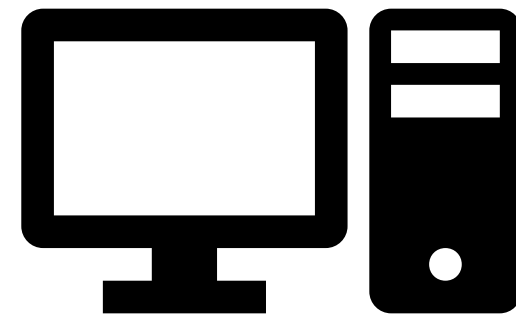
DAY 1 OPENING SESSION

Welcome: John Ciovacco / *Conference Co-Chair, NY-GEO*

Gold Sponsor: Titian Burris / *ClimateMaster, Inc.*

NY-GEO Update: Christine Hoffer / *NY-GEO Executive Director*

Day 1 Keynote: James Van Nostrand / *Chair, Massachusetts Department of Public Utilities*

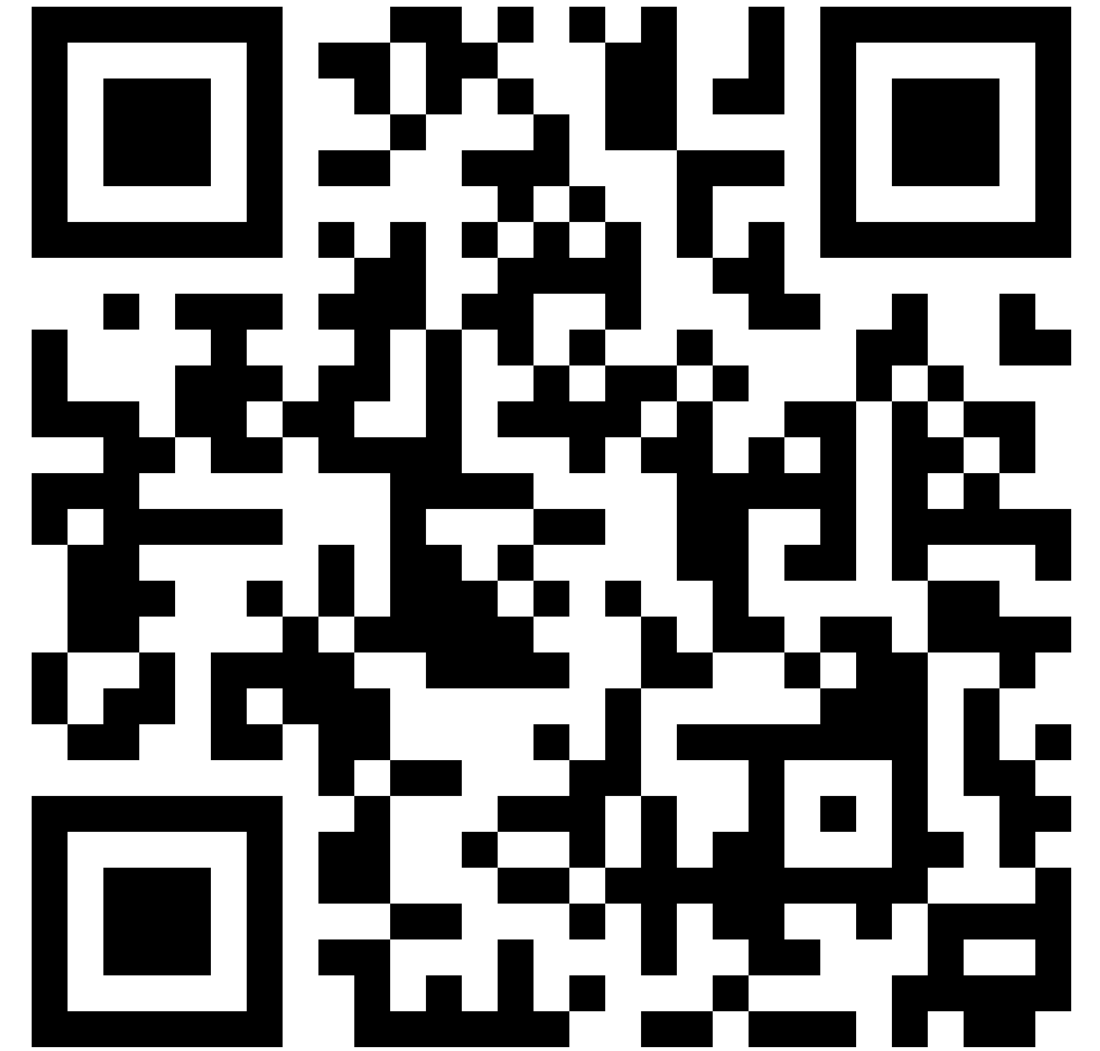


WiFi Network Name:

NYGEO

Password:

LETSGOGEO



NY-GEO 2025 PHOTOS!
Link to Gallery – Rachel Collet Photography



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Wed., April 23 • NY-GEO 2025 • Saratoga • DAY 1

7:30-8:30

Registration, Continental Breakfast & Mingling with Exhibitors *Sponsored by Enertech Global*

8:30 -
9:45



Welcome/Housekeeping: John Ciovacco / Aztech Geothermal & NY-GEO Board

(Proctor: Chris Winckler)

Gold Sponsor Remarks: Titian Burris / ClimateMaster, Inc.

NY-GEO Update: Christine Hoffer / NY-GEO Executive Director



DAY 1 KEYNOTE: Jamie Van Nostrand / Chair, Massachusetts Department of Public Utilities

9:45 -10:00

Mingling with Exhibitors / Coffee Break *Sponsored by Versaprofiles*

TRACK
Room

THERMAL ENERGY NETWORKS
Room M1 (Proctor: Aeowyn Kendall)

DESIGN TRACK (CEUs)
Room M2A (Proctor: John Rath)

BUILDING ELECTRIFICATION
Room M2B (Proctor: Matt Arisohn)

10:00-
11:00

**Establishing a
Thermal Energy Network Program**

Moderator:

Tim Ashmore / CDM Smith

Panel:

Greg Koumoullas / Con Edison

Bess Gorman / National Grid

Jen Hendrick / Baltimore Gas & Electric

**The Importance of Monitoring in
Commercial GSHP Systems**

Speaker:

Connor Dacquay / GeoFease

Geothermal 101

Speaker:

Jay Egg / Egg Geo, LLC

11:00 - 11:30

Coffee Break & Mingling with Exhibitors *Sponsored by New York State Pipe Trades Association*

11:30-

**Thermal Energy Network
Tools & Resources:**

Speakers:

How Incentives Impact Design Choices

Speakers:

Jeff Love / Sustainable Comfort, Inc.

2025 GeoStar Top Job Presentations

Moderator:

Joanne Coons / NY-GEO Member



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PRESENTING SPONSOR



NYSERDA
New York State Energy Research
and Development Authority

50 YEARS 1975-2025



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TOP JOBS



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MEDIA



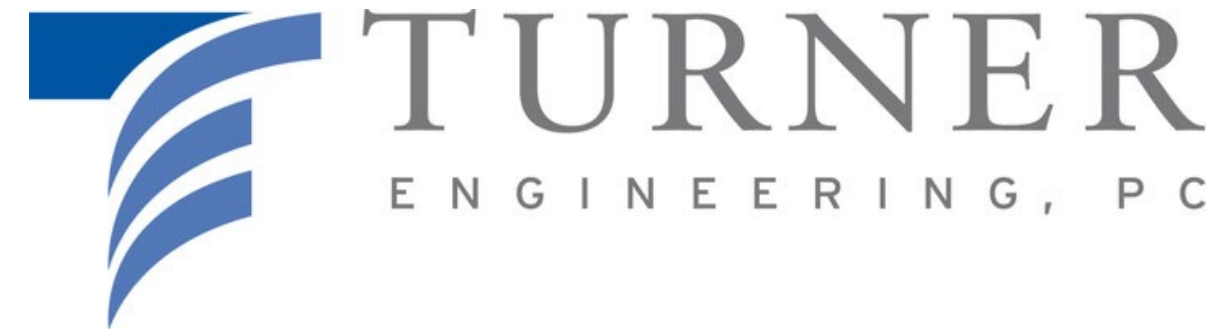


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PRESENTING



missionGeo

Unearthing the benefits of geothermal heating and cooling

DRILLERS



CASING

GROUT

PIPE

PPE





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EXHIBITORS – THANK YOU

1 Celsius Energy
2 Trane Technologies
3 Trane Technologies
4 CHA Consulting, Inc.
5 Con Edison
6 Climate Control Group
7 Climate Control Group
8 Allied Environmental Services
9 ISCO Industries, LLC
11 Endurant Energy
12 Versaprofiles
13 New York State Pipe Trades Association
14 Ewbank Geo Testing
15 SHARC Energy
16 JW Swanson
17 Rototec LLC
18 WaterFurnace International
19 WaterFurnace International
20 Salas O'Brien

21 Midwest Geothermal
22 GeoPro, Inc.
23 Morris Shea Bridge Company Inc
24 NYS Laborers Organizing Fund
25 CORECHEM Inc.
26 Bore Logic
27 East West Drilling
28 HIGHMARK | Building Efficiency
29 Turner Engineering, PC
30 Enertech Global
31 Enertech Global
32 Waterless Geothermal
33 GroundHeat
36 Energy Catalyst
38 Republic Drill Co
39 Republic Drill Co
40 Republic Drill Co
41 M/E Engineering

42 Phoenix Energy Supply
43 Phoenix Energy Supply
G1 NYSERDA
G2 Geothermal Drillers Association
G3 GeoExchange
G3 IGSHPA
G3 MISSION GEO
G3 The Driller
G4 Aztech Geothermal
T1 Dandelion
T2 Envirohire
T3 FW Webb
T4 Stark Tech
T5 ICF
T6 PSEG Long Island
T7 CoilRig Pty Ltd
T8 CETCO
T9 Geoprobe Systems®
T10 Miller Proctor Nickolas, Inc.

T11 Centennial Plastics, Inc.
T12 Terra Sonic
T13 Air & Water Source Group



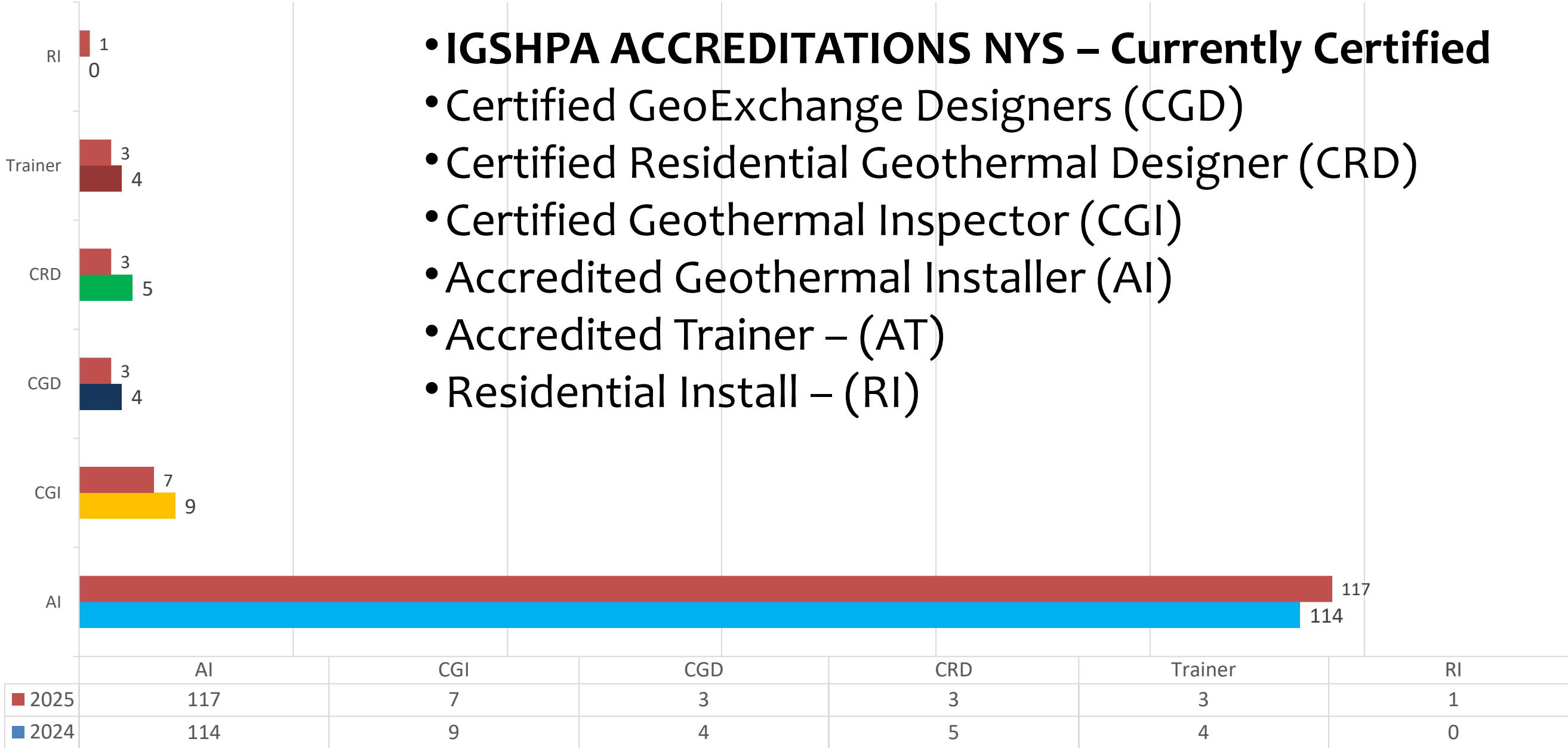


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GEO THERMAL CERTIFICATION





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ADVANCING GSHP- GEOTHERMAL IN NYS

NY HEAT ACT [\(S2016A/A4592A\)](#)

- 100' Rule
- Obligation to Serve
- Energy Costs no more than 6% of income

NY CAP and INVEST- NYCI

Charge emitters for carbon pollution and reinvest that revenue into rebates for ratepayers and projects to mitigate the impact of climate change.

INCREASE GEOTHERMAL TAX CREDIT [\(S8106/A8588\)](#)

To help more building owners manage this transition, the allowed tax credit should be increased from \$5,000 to \$10,000, and geothermal technology should be adopted.



Sign the NY-GEO letter supporting the **NY HEAT Act** and the **Expanded Geothermal Tax Credit** !
Use the QR Code below or type: bit.ly/NYGEO25 into your browser. Then fill out the Google Form





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ADVANCING GSHP- GEOTHERMAL IN NYS

DRILLING

> 500 Feet Legislation Passed

NY-GEO Geothermal Drilling Regulations Committee continues to work with the DEC on the rule making/regulations

< 500 Feet Legislation

Discussion on a bill introduced in 2017 and then again in 2019

Wetland – New Rules Passed

BOREHOLES COMPLETION REPORTS > 500 Feet

Voluntary drilling log submissions for deeper closed-loop boreholes to help inform the DEC's rulemaking process





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NY-GEO GROWTH - INITIATIVES

WORKFORCE DEVELOPMENT

Provide IGSHPA Certified training to Clean Heat Contractors

- 975 registered Clean heat Contracts
- 97 are GHP

Provide certified training courses to organizations with HVAC programs

- Community Colleges
- BOCES
- Electrical and HVAC Training Centers
- Traditional Fossil Fuels Delivery Companies (oil and propane)
- Clean Heat Contractors that are not providing geothermal
- Labor Groups



GSHP MANUFACTURERES /DISTIBUTORS

- Collaborate to help promote and outreach.
- Request attendance and number of certified individuals

CLEAN HEAT CONTRACTORS

- Work with Utilities to identify Clean Heat Contractors with no GSHP certification to invite to certified training programs
- Collaborate with Clean Heat HUBS to educate on geothermal

**DOE PATHWAYS GSHP WFD GRANT
PON 3981 for Certified GSHP Training**

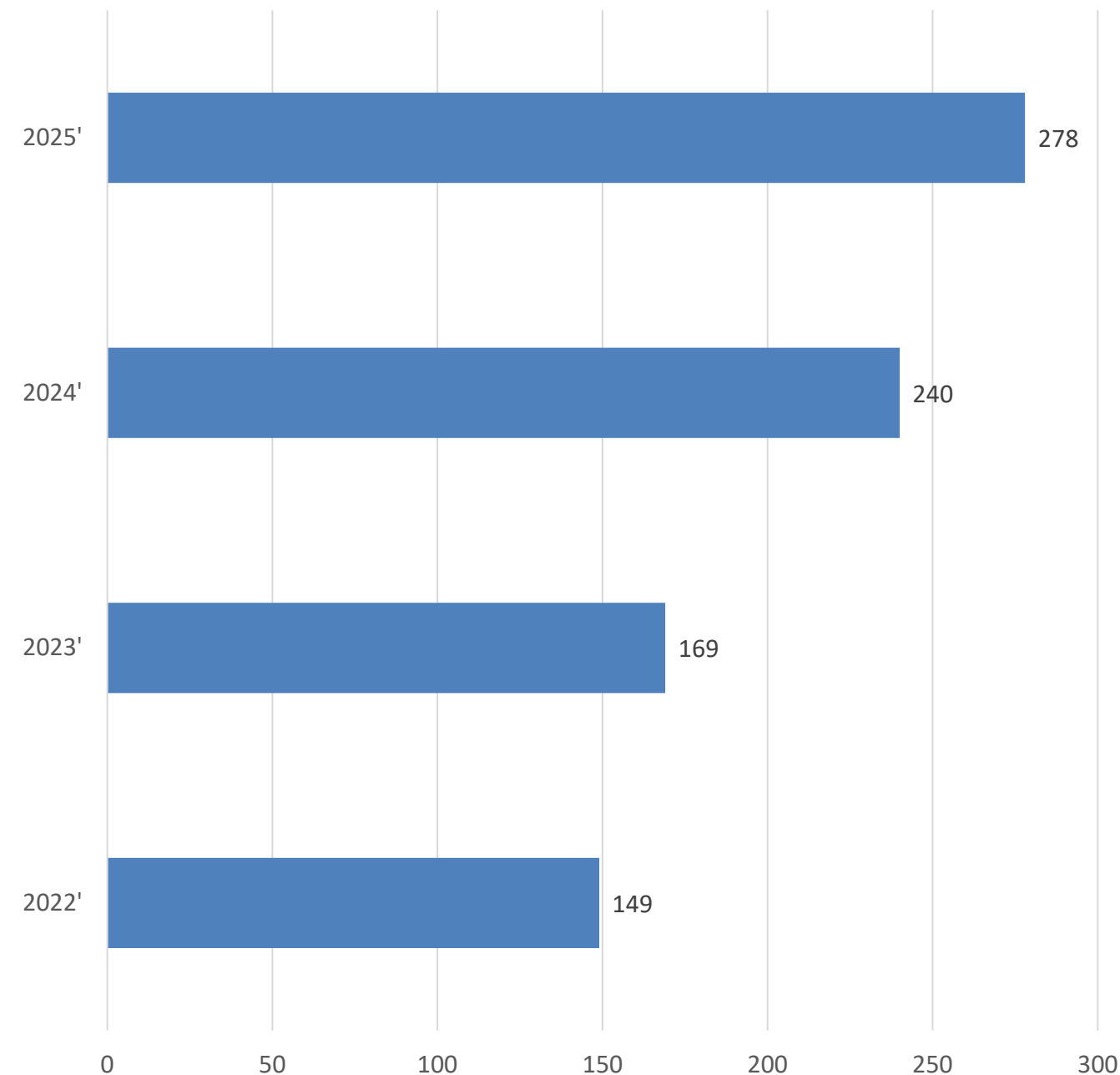


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NY-GEO MEMBERSHIP – WHY IT'S IMPORTANT

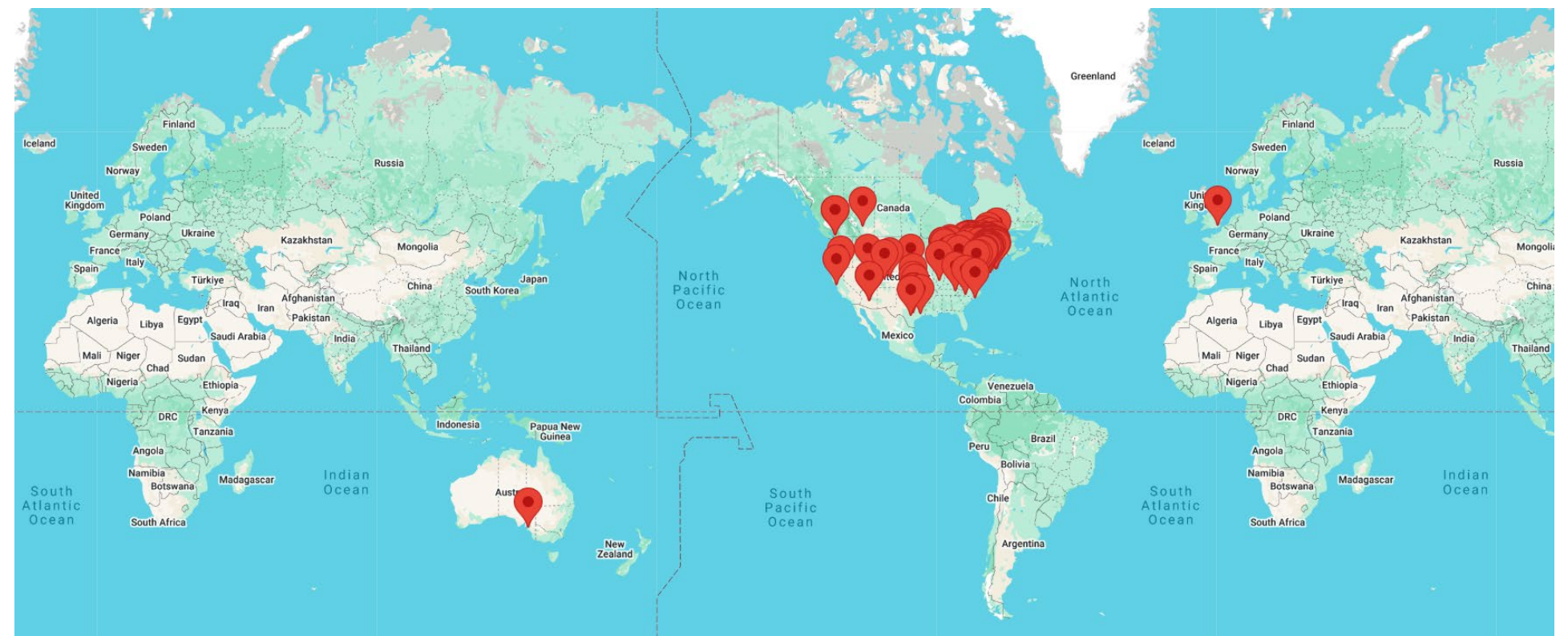


2022 to 2025

57% increase in membership

2025

- 278 Members
 - 236 Organization
 - 42 Individual Members
 - 722 People
 - Example: XYZ Geo 1 organization, 3 people





NY - GEO 2025

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STRONGER TOGETHER

JOIN – NY-GEO

JOIN – WORKING GROUP

SUPPORT – NY-GEO 2025

LET'S GO GEO



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Jamie Van Nostrand

Chair, Massachusetts Department of Public Utilities





The Potential Role of Thermal Energy Networks in Massachusetts

NY-GEO 2025
Saratoga Springs, New York

April 23, 2025



James M. Van Nostrand

Chair, Massachusetts Department of Public Utilities



Overview

- Clean energy targets in Massachusetts
- Statutory framework
- Regulatory framework
 - Pipeline Safety Division's Networked Geothermal Safety Guidelines
- Current challenges



But First, a Big Picture Overview



- A policymaker's perspective on the benefits of thermal energy networks
 - Decarbonization initiatives
 - LDC transition
 - Workforce transition
 - Grid benefits
 - Reduced T&D infrastructure



Clean Energy Targets in Massachusetts

- Commonwealth set a target of net zero greenhouse gas (GHG) emissions by 2050 in the Global Warming Solutions Act of 2008
- Established sector-specific emissions reduction targets for 2025 and 2030 in the Clean Energy and Climate Plan (June 2022)



Clean Energy Targets in Massachusetts

[Source: 2022 CECP]

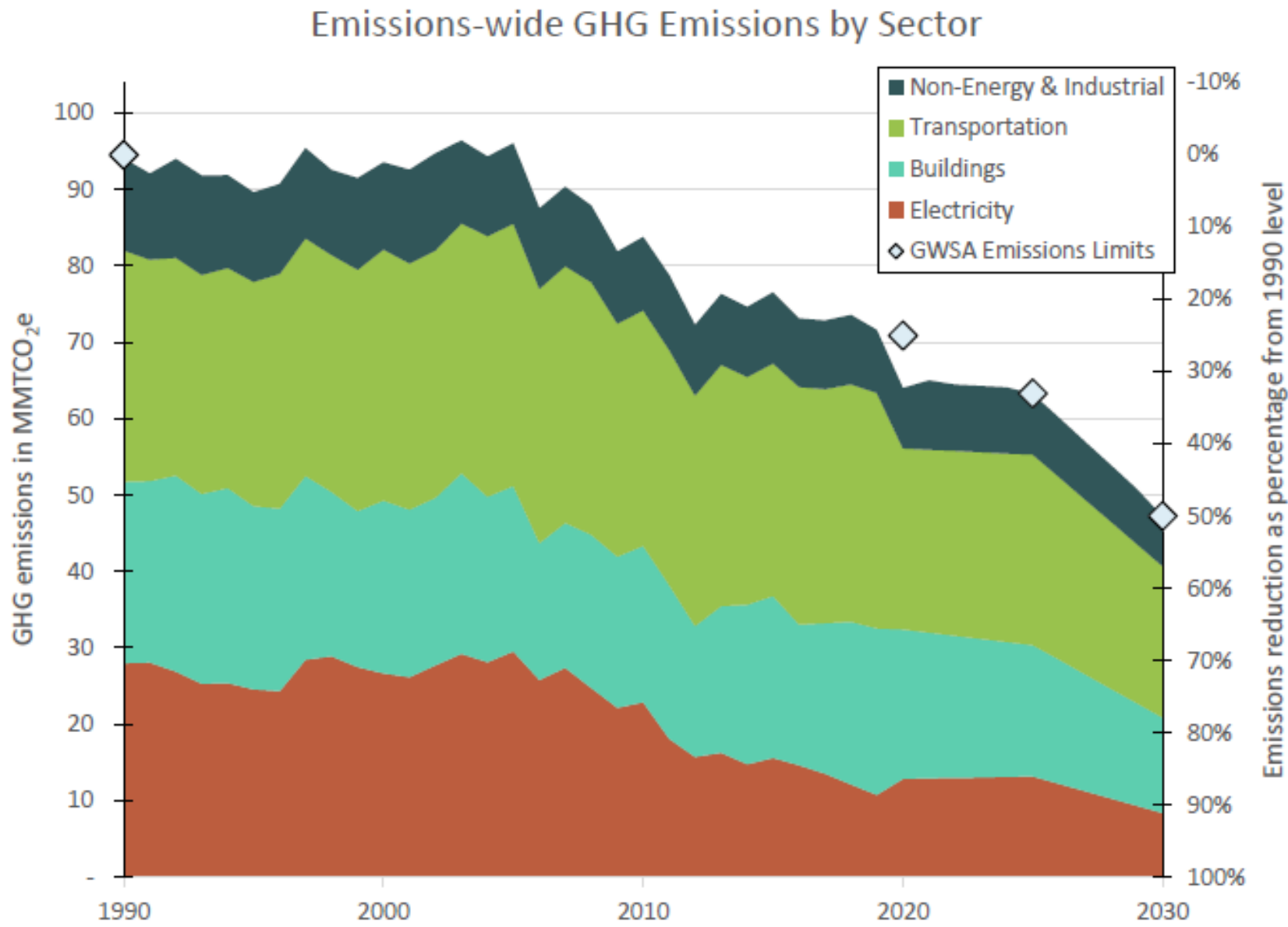


Table ES.2. Historical GHG Emissions and 2025/2030 GHG Emissions Sublimits for Residential and Commercial Building Heat

Buildings (Residential & Commercial) Sector GHG Emissions (MMTCO ₂ e)	1990	2010	2015	2020	2025	2030
Residential	15.3	13.7	13.6	12.2	10.8	7.8
Commercial (without Industrial)	8.4	6.7	7.6	7.3	6.4	4.7
Total Gross Emissions (MMTCO ₂ e)	23.8	20.4	21.2	19.5	17.2	12.5
Total Percent Reduction from 1990		14%	11%	18%	28%	47%



Statutory Framework

- Gas companies are authorized to propose pilot projects for development of utility-scale renewable thermal energy (2021 Climate Bill)
- Gas system enhancement plan (GSEP) projects may include “replacing natural gas infrastructure with utility-scale non-emitting renewable thermal energy infrastructure.” (2022 Climate Bill)



Statutory Framework

- 2024 Climate Bill
 - Section 47: Amends definition of “gas company” to provide that “[a] gas company may make, sell or distribute utility-scale non-emitting thermal energy, including networked geothermal and deep geothermal energy.”
 - Section 77: Addresses “obligation to serve” by allowing consideration of adequate substitutes for gas services
 - Section 81: Modifies eligible infrastructure investment in GSEP to include “retirement”



Regulatory Framework

- D.P.U. “Future of Gas” proceeding
 - Order 20-80-B (December 6, 2023)
 - Electrification is primary pathway to achieve GHG emissions reduction targets
 - Air-source and ground-source heat pumps (which includes geothermal energy networks)
 - Requires consideration of non-gas pipeline alternatives (NPAs) before investing in additional natural gas distribution infrastructure
 - Requires each LDC to file a Climate Compliance Plan (CCP) by April 1, 2025



Regulatory Framework

- D.P.U. “Future of Gas” proceeding
 - Each local gas distribution company (LDC) is required to file a targeted electrification project by March 1, 2026
 - Must work with applicable electric distribution company (EDC)
 - National Grid filed Targeted Electrification Demonstration proposal (communities of Winthrop and Leominster) in December 2024 (D.P.U. 24-194)



Regulatory Framework

- Policy considerations for demonstration projects (2021 Climate Bill)
 - Substitute sources must have a reasonable likelihood of facilitating substantial reductions in GHG emissions
 - Pilot cannot include blending of other fuels with fossil-based natural gas
 - DPU must use third-party evaluation



Regulatory Framework

- Policy considerations (continued)
 - DPU must consider reasonableness of size, scope and scale of project and related budget
 - Do the benefits justify the proposed cost to both participating customers and non-participating customers?
 - Calculation of benefits must include calculations of the social value of GHG emissions reductions



Networked Geothermal Safety Guidelines

- Issued by Pipeline Safety Division on July 31
- Apply to closed-loop geothermal systems of interconnected ground-source heat pumps
- Objectives
 - Support development of clean and non-combustible energy resource
 - Prioritize the safety and health of operator personnel, the public, and the environment
- Division will conduct inspections and regulate operation, maintenance and construction



Networked Geothermal Safety Guidelines

- Excludes networked geothermal systems exclusively on private property and operated solely for owner (i.e., not for resale)
- Elements of Guidelines
 - Install, test, and operate in accordance with technical standards
 - Notice of Intent, Notice of Construction to Division for new projects
 - Create and follow written construction, operating, and maintenance procedures
 - Emergency Response Plan



Networked Geothermal Safety Guidelines

- Elements of Guidelines (continued)
 - Operator Qualification Plan prescribing minimum requirements for workers
 - Record-keeping requirements (traceable, verifiable, and complete)
 - Instruments of service reviewed and stamped by Professional Engineer
 - Filing of Annual Reports with Division



Networked Geothermal Demonstration Projects in MA

- Completed projects
 - Eversource Framingham
- Proposed projects
 - Eversource expansion of Framingham project, with additional DOE funding
 - National Grid Lowell (now canceled)
 - National Grid/Boston Housing Authority Franklin Field Apartments
 - Eversource proposal for new construction
 - As an alternative to extending natural gas system
 - Filing expected "in early Q2 2025" (April 1 CCP)



Current Challenges

- Addressing the continuing obligation to serve existing natural gas customers





Current Challenges

- Addressing the upfront costs of thermal energy networks
 - Monetizing the benefits of geothermal
 - Grid benefits
 - Avoided T&D investment
 - On-bill financing
 - Utility ownership of geothermal resource
 - Limited to natural gas LDCs?
 - Exclusive service territory?



Questions?



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