



NY - GEO 2025
APRIL 23-24, 2025 | SARATOGA SPRINGS, NY



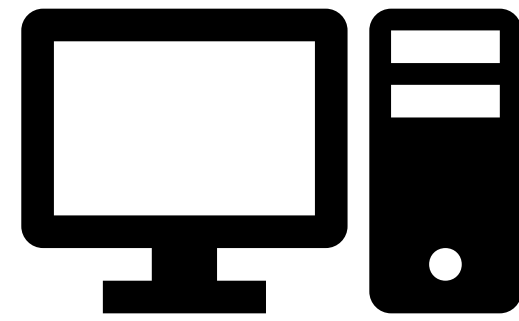
DAY 1 OPENING SESSION

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



[Rachel Collet Photographers LINK](#)

OR

[Google Photo LINK](#)

<https://photos.app.goo.gl/1NDUHXdFKGkP9daG7>

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 <i>Room M1 (Proctor: Aewyn Kendall)</i>	DESIGN TRACK (CEUs) <i>Room M2A (Proctor: John Rath)</i>	BUILDING ELECTRIFICATION <i>Room M2B (Proctor: Matt Arisohn)</i>
10:00-11:00	Establishing a Thermal Energy Network Program Moderator: Tim Ashmore / CDM Smith Panel: Greg Koumoullou / 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



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New York State Energy Research
and Development Authority

50 YEARS 1975-2025



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MEDIA



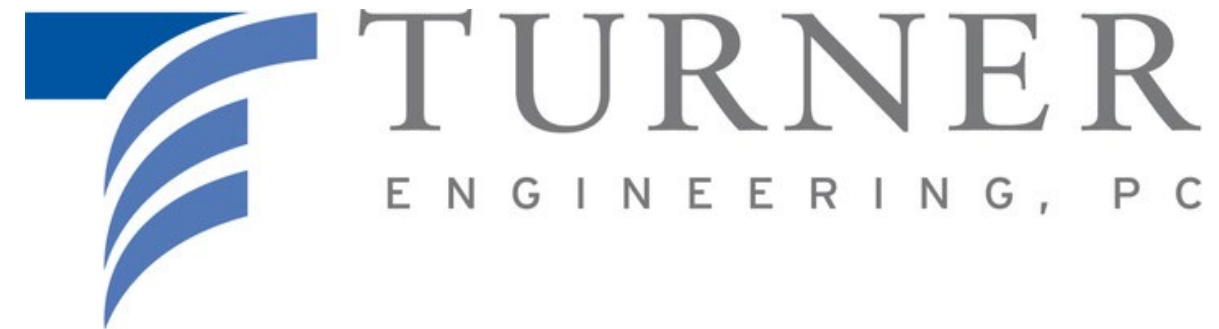


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DRILLING DEMO & SITE TOUR SPONSORS

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



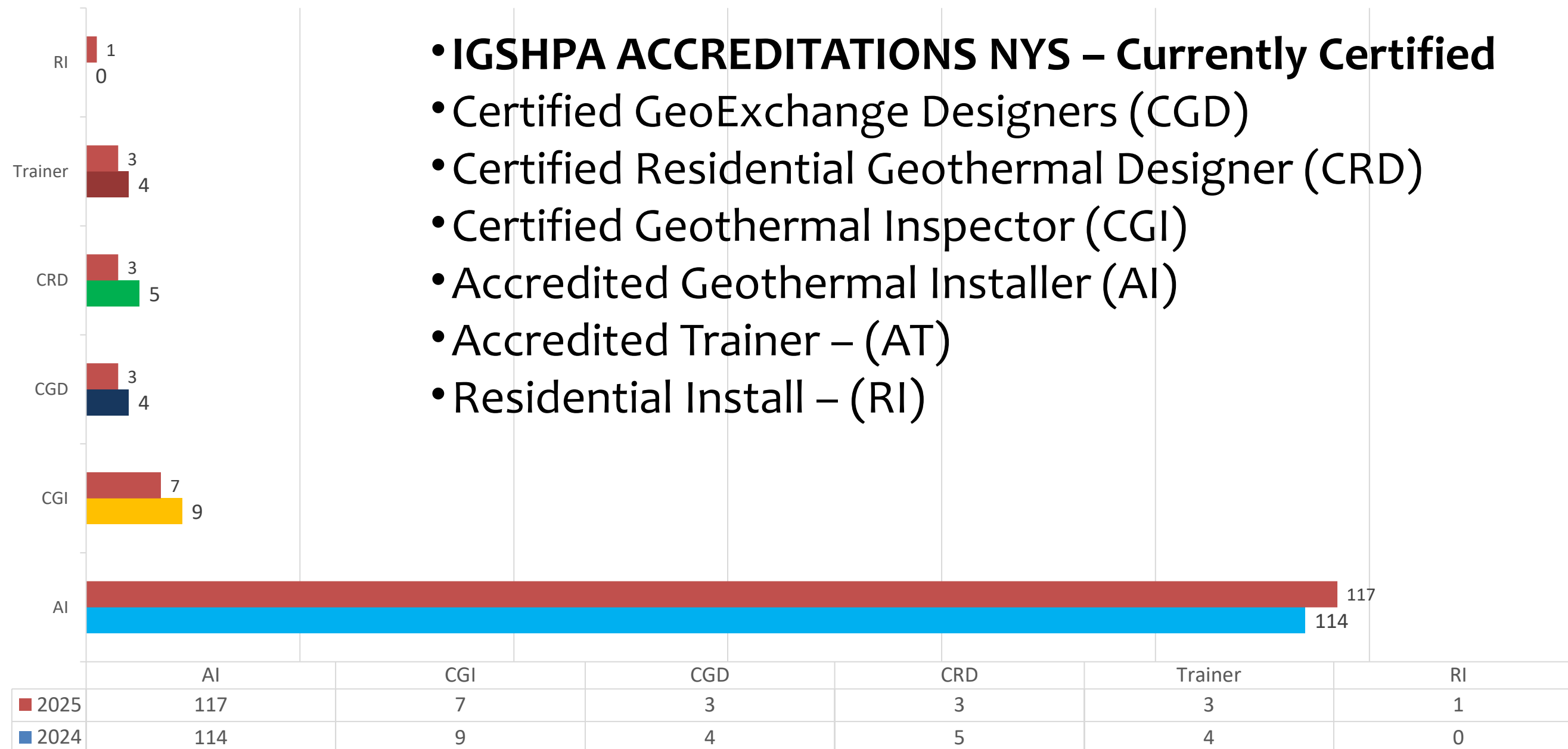


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GEO THERMAL CERTIFICATION



- **IGSHPA ACCREDITATIONS NYS – Currently Certified**
- Certified GeoExchange Designers (CGD)
- Certified Residential Geothermal Designer (CRD)
- Certified Geothermal Inspector (CGI)
- Accredited Geothermal Installer (AI)
- Accredited Trainer – (AT)
- Residential Install – (RI)



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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**

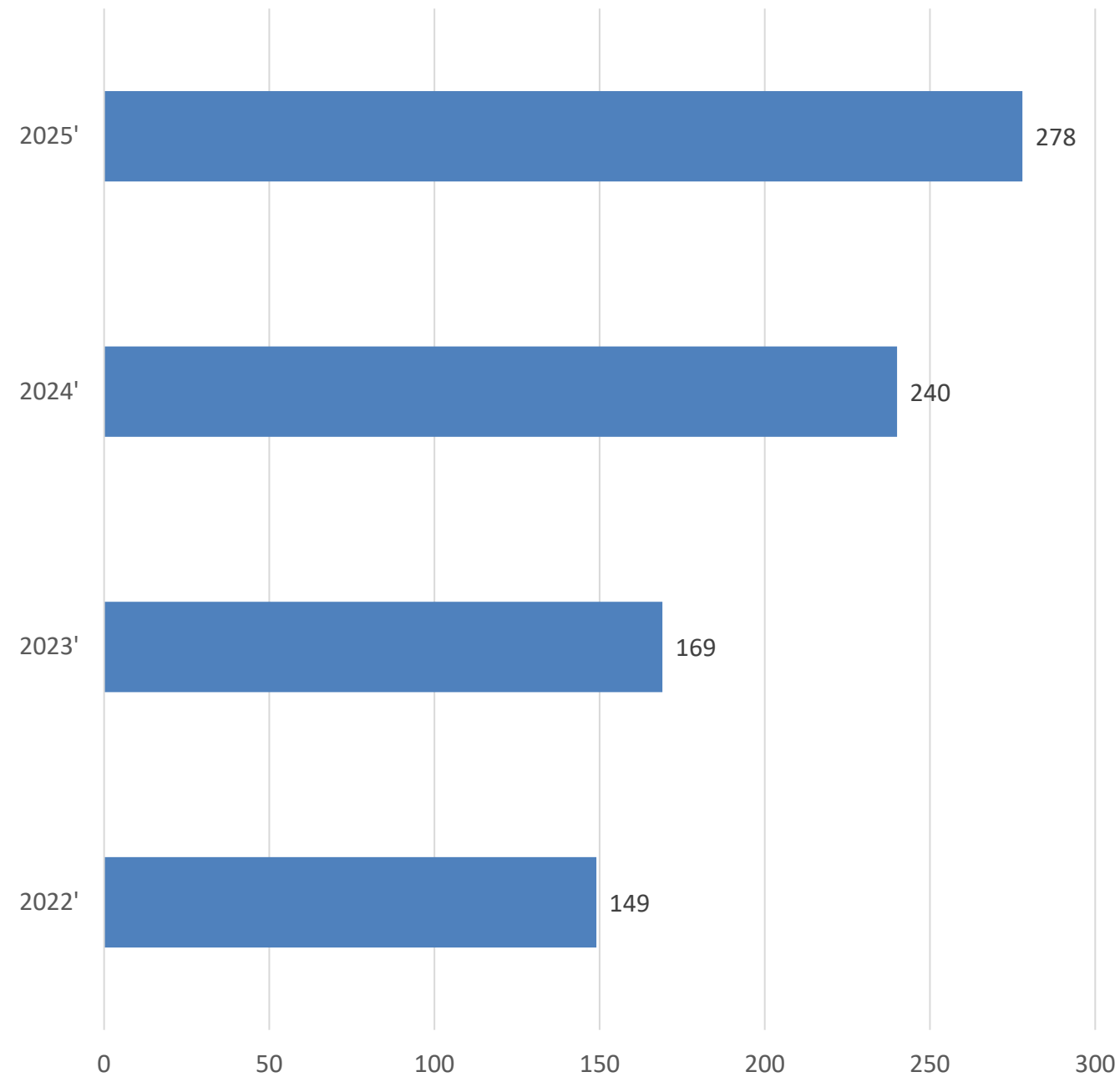


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NY-GEO MEMBERSHIP – WHY IT'S IMPORTANT



2022 to 2025

57% increase in membership

2025

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





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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]

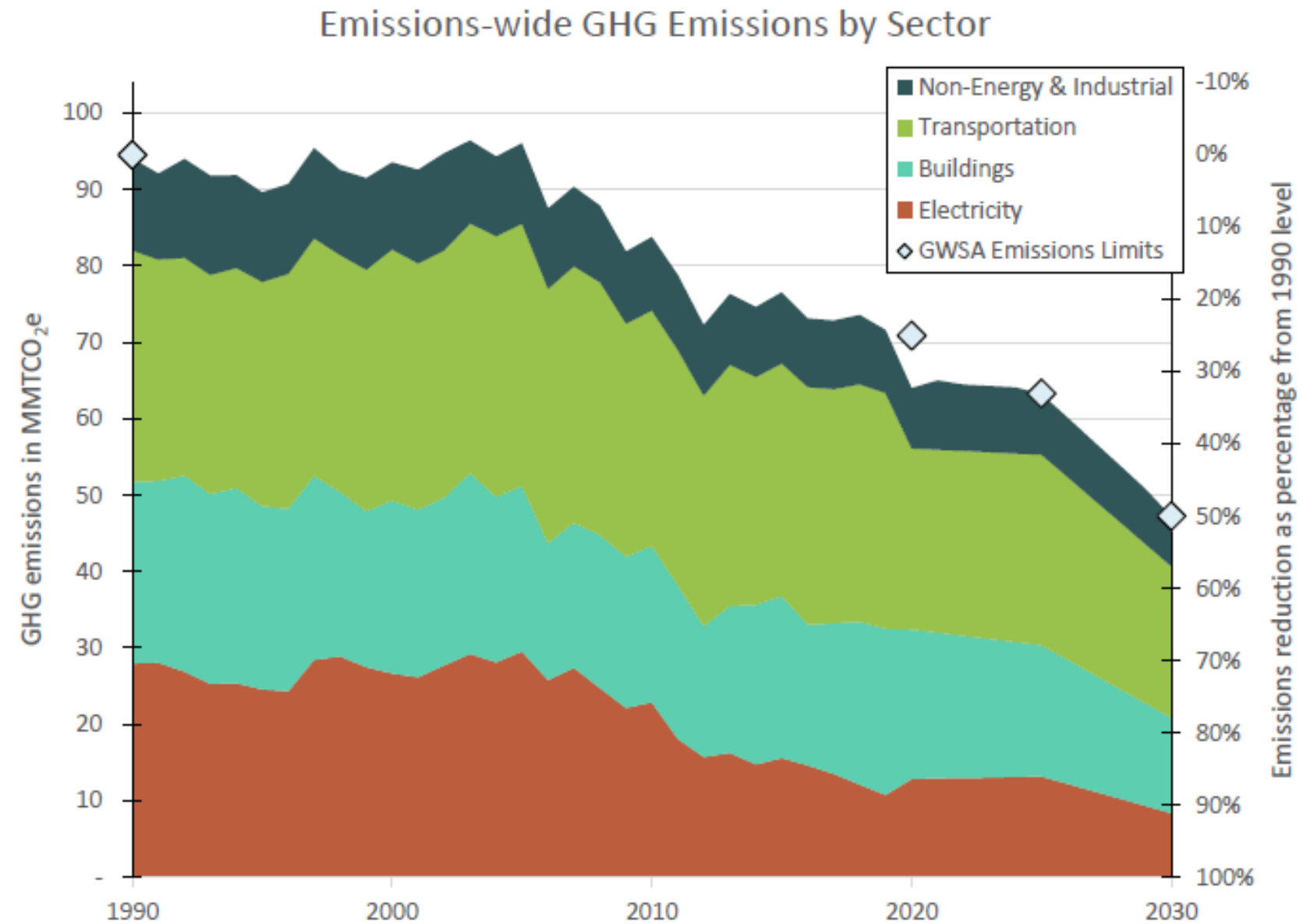


Table ES.2. Historical GHG Emissions and 2025/2030 GHG Emissions Sublimits for Residential and Commercial Building Heat

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 (MMTCO₂e)	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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