



NY - GEO 2025

APRIL 23-24, 2025 | SARATOGA SPRINGS, NY



Meeting Labor Requirements for UTEN & Large GSHP Projects

Moderator: Christine Hoffer / *NY-GEO*

Panel: Emily Engman / *Eide Bailly*

Tom Carrigan / *Local 7*

Harrison Watkins / *LiUNA*

Michael Lyons / *IUOE 158*



INFLATION REDUCTION ACT AND PREVAILING WAGE & APPRENTICESHIP

INFLATION REDUCTION ACT OF 2022 – CLEAN ENERGY ROADMAP

Clean electricity & reducing carbon emissions

Extending/modifying existing credits

- 45 – Production tax credit (PTC)
- 48 – Energy credit (ITC)
- 45Q – carbon capture

New credits

- 48 – increase ITC for solar in low-income communities
- 45U – Zero emission nuclear power PTC

Clean fuels

Extending/modifying existing credits

- 40, 40A, 6426, 6427 – biodiesel, alternative fuels
- 40(b)(6) – second generation biofuel

New credits

- 40B/6426/6427 – sustainable aviation fuel blender credit
- 45V – PTC – clean hydrogen

Manufacturing & energy security

Extending/modifying existing credits

- 48C – Advanced energy project credit – new credit allocation
- 179D Energy efficient commercial buildings

New credits

- 45X – Advanced manufacturing PTC

Clean energy incentives for individuals

Extending/modifying existing credits

- 25C – Nonbusiness energy (extend/increase/modify)
- 25D – Residential energy efficient property
- 45L – New energy efficient homes

Clean vehicles

Extending/modifying existing credits

- 30C – Alternative fuel refueling property
- 30D – Clean vehicles credit

New credits

- 25E – Used clean vehicles
- 45W – Commercial vehicles

Clean electricity and transportation

Below new incentives generally effective 1/1/2025

- 45Y – Clean Electricity PTC
- 48E – Clean Electricity ITC
- 45Z – Clean Fuel PTC
- Cost recovery for qualified facilities, property, and storage

Superfund excise tax

New tax

- 4611 – Reinstate hazardous superfund financing rate on crude oil and petroleum products

ENERGY CREDITS

Clean Energy Investment Tax Credit (Section 48)/Clean Electricity Investment Tax Credit (Section 48E)



Investment in equipment that produces energy from alternative sources:

- Solar
- Wind
- **Geothermal**
- Fuel Cells
- Microturbines
- Combined heat and power systems
- Equipment that recovers waste energy
- Energy storage

ENERGY CREDITS

Credit Percentage

- Basic credit = 6%
- Increased Credit Requirements = 30%
- Domestic Content = + 10%
- Energy Community = + 10%
- Environmental Justice Allocation

Increased Credit Requirements

- maximum net output of less than 1 megawatt (284 tons)
- beginning of construction prior to January 29th, 2023
- satisfies the Prevailing Wage & Apprenticeship requirements

INFLATION REDUCTION ACT – MONETIZING CREDITS

Section 6417: Direct Pay

- Eligible Entities:
 - Tax-exempt
 - State or political subdivision
 - TN Valley Authority
 - Tribal Government
 - Alaska Native corporation
 - Rural Electrical Co-ops
 - Certain Partnerships and S Corporations

Section 6418: Transferability

- Everyone not listed in 6417
- Transfer for Cash
- Buyer is not eligible for direct pay
- Proceeds not includable as income or expense
- Risk on Transferee
- Consideration for tax insurance instrument

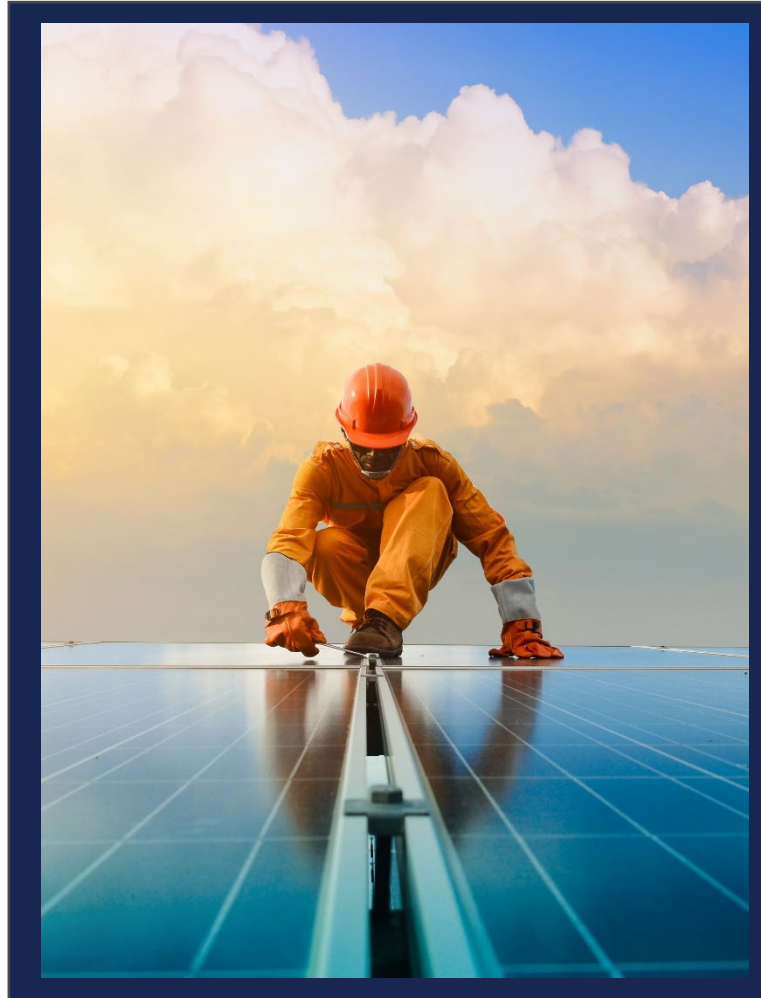


INCREASED CREDIT REQUIREMENTS

PREVAILING WAGE & APPRENTICESHIP

PREVAILING WAGE

- Defined by Davis Bacon
- Risk maintained by Taxpayer
- Documentation
 - Name & ID Number
 - Work Classification
 - Hours worked
 - Rate of Pay, including Fringe Benefits
- Penalties



APPRENTICESHIP

- Registered Apprentice
- Labor Hours
 - 15%
- Apprentice to Journeyworker Ratio
- Participation Requirement
- Exceptions
 - Good Faith Effort
 - \$50 or \$500 per labor hour



PREVAILING WAGE & APPRENTICESHIP REPORTING CHALLENGES

PREVAILING WAGE & APPRENTICESHIP CHALLENGES

PREVAILING WAGE

- Construction type
- Job Classifications
- Deficient Hourly Wage
- Overtime

APPRENTICESHIP

- Registered Apprenticeship Programs
- Journeyworker to Apprenticeship Ratio
 - Contractual Bargaining Agreement Ratios
 - State Department of Labor Ratios

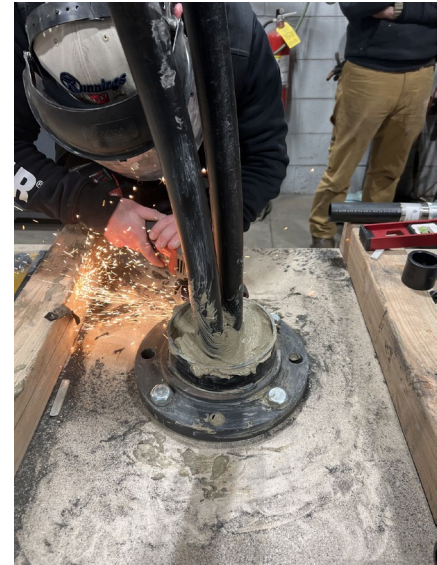
REPORTING

- Review Timelines
 - Penalties



Local 7 Plumbers & Steam Fitters

Commercial Ground Source Heat Pump Systems



Tom Carrigan

- 38 Year Member of UA Local 7 Plumbers and Steamfitters
- Business Agent UA Local 7
- IGSHPA Accredited Geothermal Installer (2024)



Multiple Trade's Roles on a PLA Bore Hole Ground Loop Field Installation

- **Drilling the Bore Holes**
 - 1 Operating Engineer and 1 Laborer
- **Excavating the Ground Loop Field**
 - 1 Operating Engineer and 1 Laborer
- **Installing the Ground Loop Piping Coil into the Bore Hole**
 - 1 Operating Engineer and 1 Laborer
- **HDPE Piping Installation for Ground Loop Field**
 - 3 Pipefitters
- **Hydro Testing Ground Loop Field**
 - 2 Pipefitters



Multiple Trade's Roles on a PLA Geothermal Project Inside of the Building Work

- Setting Geothermal HVAC Equipment (Pipefitters)
- Piping Mains and Branches (Pipefitters)
- Condensate Drains (Pipefitters)
- Power and Control Wiring (Electricians)
- Ductwork (Sheetmetal Workers)
- Piping and Duct Insulation (Insulators)
- Piping Loop and Ground Loop Flushing (Pipefitters)
- System Start Up (Pipefitters, Electricians and Sheetmetal)



Geothermal Training at Local 7

- **All Apprentices receive Geothermal Training:**
- Geothermal System design
- Geothermal System Installation Basics
- HDPE Piping Certification
- Hands on Grouting a Bore Hole



Local 7 scope of work on these projects

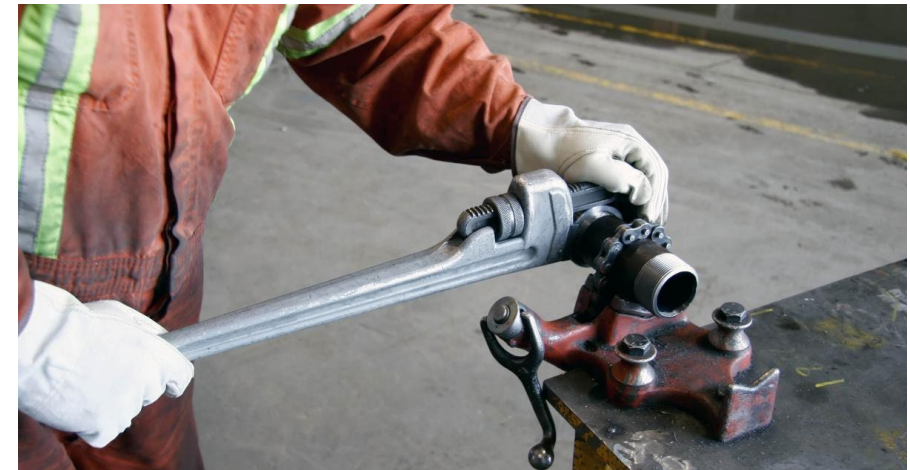
- Installing GSHP Units in the Building
- Installing GSHP Building Loop Mains and GSHP Unit distribution piping in the Building
- GSHP Unit Condensate Piping
- Installing the Ground Heat Exchanger outside of the Building, HDPE Piping, Hydro Testing and Flushing.



NYS Registered Apprentice Program Plumber/Pipefitter

Tasks on the Jobsite:

- Rigging
- Operation of Tools and Equipment
- Safe use of Ladders and Personal Lifts
- Piping Installations
- Installation of Controls
- Installation of Plumbing Work
- Boiler Installation
- Natural Gas Piping
- Geothermal Installations (Installing, Maintenance and Repair)



Safety Training of Local 7 Members

- Excavation Safety
- HDPE Piping Certification
- Ladder Safety
- Aerial/ Scissor Lift Training
- Pressure Testing
- Proper Usage of PPE (Hard Hats, Safety Glasses, Gloves, Ect.)



Projects Local 7 Members have completed

- **ETEC Building Harriman State Office Campus Albany N.Y.**
- Contractor T Lemme Mechanical Inc.
- Project Completed Fall 2021
- 190 Bore Hole Loop Field



Projects Local 7 Members have completed

- Steamboat Square 20 Project
- Contractor: Collett Mechanical
- Project Completed Spring 2024
- 32 Bore Hole loop Field



Projects Local 7 Members have completed

- **HVCC STEM Facility (Malta Campus)**
- Contractor T Lemme Mechanical Inc.
- Project Completed September 2024
- 24 Bore Hole Loop Field



Projects Local 7 Members have completed

- **Saratoga County Airport Project**
- Contractor: Eckert Mechanical
- Under Construction
- 24 Bore Hole Loop Field
- Eckert Complete all Geothermal Work on the Project



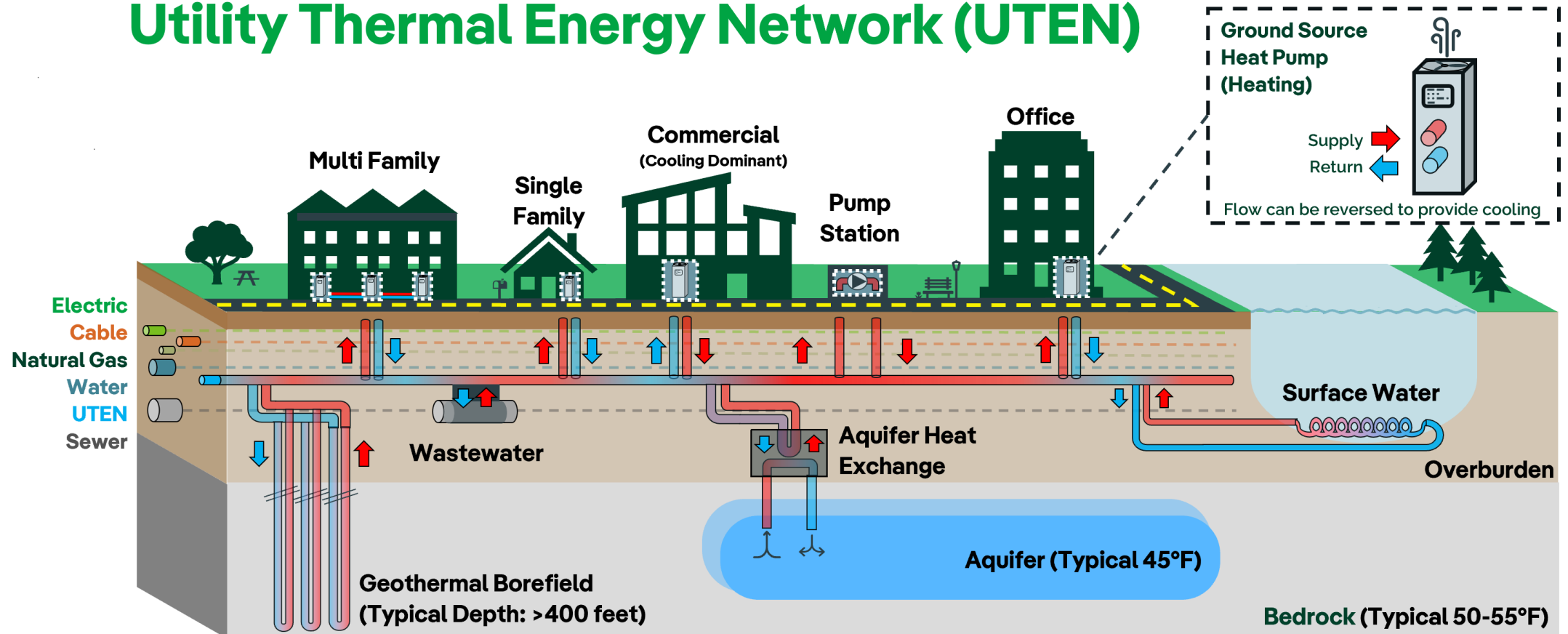
Projects Local 7 Signatory is working on

- **Holyoke Solders Home Holyoke Massachusetts**
- Contractor: Harry Grodsky & Co inc.
- 148 Bore Hole Loop Field
- Under Construction



Utility Thermal Energy Networks (UTEN)

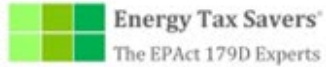
Utility Thermal Energy Network (UTEN)



IRA (Inflation Reduction Act of 2022)



Apprenticeship Ratio for Tax Credit's



Apprenticeship Requirement (REG-100908-23)

Projects Started:	Apprentices make up:
Before 1/29/2023	Exempt from Requirement
In 2023 1/29/23 and later	12.5% of Total Labor Hours
After 12/31/2023	15% of Total Labor Hours

- If a contractor or subcontractor has 4 or more workers, at least 1 is must be an Apprentice
- Apprentice-to-Journeyworker ratio must be met DAILY
- Apprentice must be part of a registered apprenticeship program (3131(e)(3)(B))
- Good Faith Effort Exception
 - The taxpayer requests qualified apprentices from a registered apprenticeship program in accordance with usual and customary business practices for registered apprenticeship programs in a particular industry.
 - The taxpayer must maintain sufficient books and records establishing the taxpayer's request of qualified apprentices from a registered apprenticeship program and the program's denial of such request or non-response to such request
 - Must try every 120 days

Why use Union Labor on a PLA Project?

- Skilled, Professional and Trained Workforce
- Safety Trained Workers
- Adequate supply of manpower
- Union Trades work well with other Trades on Project
- **The Job will be on time and on budget!**



NYS Laborers & Geothermal Energy

Your Renewable Workforce

NY GEO | Saratoga, 2025

OVERVIEW

We represent over 44,000 hard
working construction craft laborers
across the state

[Play video](#)



GEOHERMAL ENERGY'S RELEVANCE TO LABORERS

- ✓ Part of CLCPA Scoping Plan
- ✓ Very similar to our utility gas work, down to the same kind of pipe
- ✓ Potentially lots of work
- ✓ UTENJA requires prevailing wage
- ✓ UTENJA has direct-entry apprenticeship language

TRAINING

- ✓ Training schools across NYS
- ✓ Trained with IGSHPA
- ✓ Can run any training class a contractor needs



APPRENTICESHIP

- ✓ NYSDOL certified programs across the state
- ✓ Direct-entry pre-apprenticeship programs as well



Project Labor Agreements (PLA's)

Mike Lyons, Labor Relations Specialist IUOE Local 158

Benefits of PLA's in Construction & Large Scale Projects

- ▶ Enhanced Labor Relations
- ▶ Cost control
- ▶ Workforce Stability
- ▶ Increase Productivity
- ▶ Timely Project Completion
- ▶ Safety & Compliance
- ▶ Community Benefits
- ▶ Quality Assurance



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