



Municipal Thermal Energy Network Accelerator



THANK YOU TO OUR FUNDER!

*The New York
Community Trust*
of Westchester

A COLLABORATION BETWEEN:



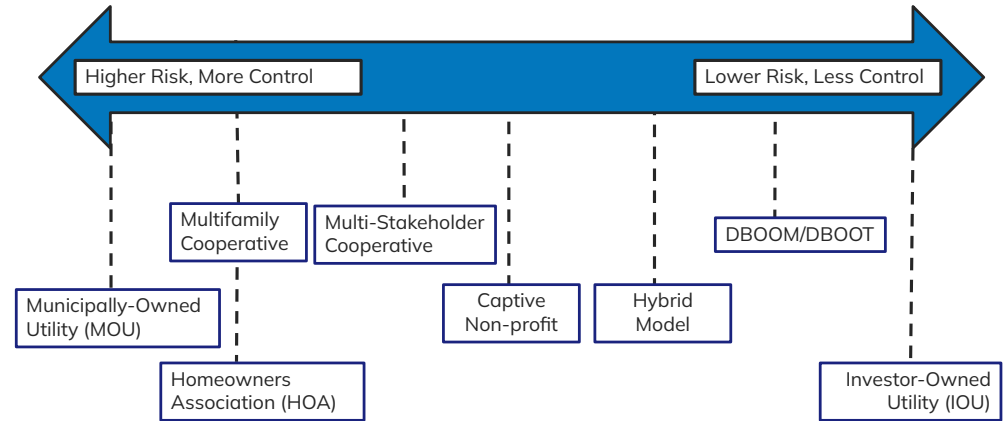
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[Chatham House Rule - Wikipedia](#)

Ownership Models – Session #3 Recap

- Evaluating ownership models along a continuum:
 - Control vs. risk – dependent on how “established” each model is
- 8 models:
 - Muni-owned
 - Cooperative-owned
 - Multifamily
 - Multi-stakeholder
 - HOA-owned
 - Captive Non-profit
 - Hybrid muni-utility (LDC)
 - DBOOM/DBOOT
 - Utility-owned
- Ownership type can influence funding mechanisms, financing opportunities to leverage



Overview

What financial tools can be leveraged to support the different stages of a thermal energy network project?

- **CONSIDER** potential costs that can be incurred when planning for and implementing a TEN
- **IDENTIFY** funding opportunities to lower upfront costs



How much does a TEN cost?

Major cost contributors:

- Soft costs (engineers, consultants, lawyers, accountants)
- Geothermal borehole drilling
- Ambient temperature pipe loop installation
- Existing building electrical & heat pump upgrades



Soft Costs

Feasibility Study: approximately \$100k

Engineering Design: approximately 3-10% of construction costs

Lawyers/Consultants: as needed, based on scope of work and hourly rates

- Could include 3rd party independent review of the design

Accountants/Tax Professionals: to ensure fulfillment of requirements for incentives/rebates

- Can ensure fulfillment of requirements for IRA rebates or other incentives



Geothermal Borehole Drilling

Most TEN projects include some number of closed-loop, vertical ground-coupled heat exchangers, either exclusively or in combination with another thermal resource.

Cost will vary with local industry, geology, drill rig type, borehole depth, etc.



Source: NY-GEO Saratoga Springs Conference, site tours

Ambient Temperature Loop Installation

Trenching and installation of the piping loop. Each customer will receive a supply/return line.

Does not include a pump house installation, if included in design



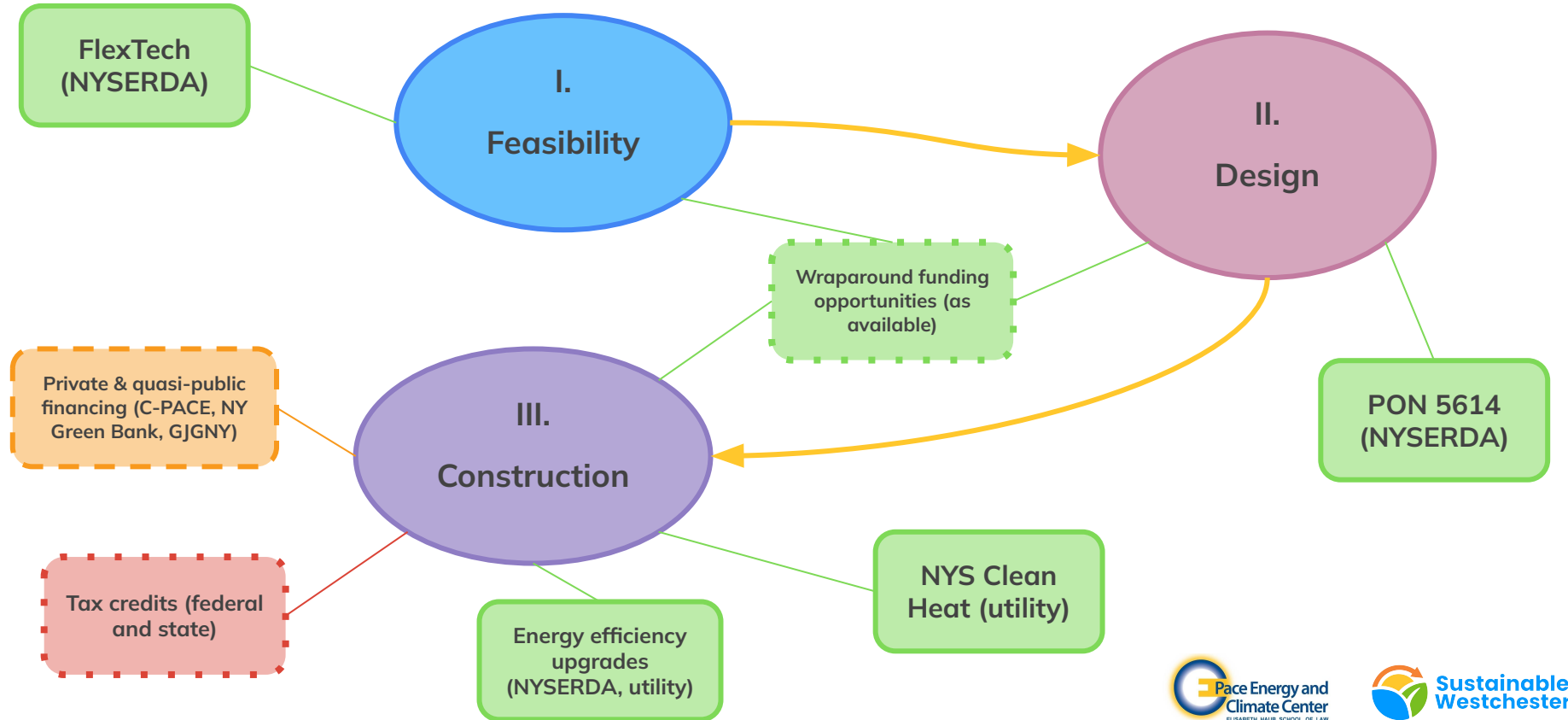
Source: ABC News

Existing Building Upgrades

- High, variable cost depending on the existing structures that will be connected.
- The age of the building, the electrical service capacity, safety concerns (mold, asbestos, etc), quality of insulation, presence of ductwork are all factors that can influence the cost of connecting an existing building to the network.
- New construction is much easier as it can be designed with the heat pump connection in mind.



Mapping Out Funding Options Throughout Project Timeline



State-level Funding for Thermal Energy Networks

Feasibility & Design

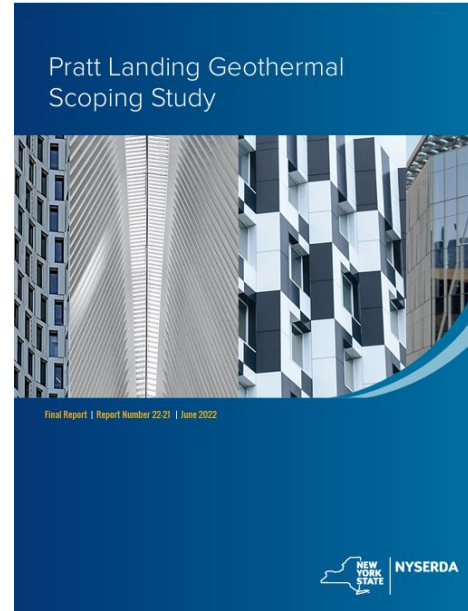
NYSERDA FlexTech

- For thermal energy networks, provides a 50% cost share for a feasibility study (~\$50,000)
- Solution provider, budget for the study must be defined in advance
- Feasibility study to meet requirements of [PON 5614](#)
[Attachment C](#)



FlexTech Considerations

- Identifying solution providers:
 - [Large-Scale Thermal program website](#): list of solution providers under “PON 5614 Resources”
 - Confirm providers have done feasibility studies in the past, can utilize FlexTech funding ([list of FlexTech providers linked here](#))
- Cost may be less, depending on level of detail
- Preview a feasibility study: many are publicly available
- Previously qualified as a Clean Energy Communities High Impact Action
 - 1,000 points



City of Troy District Energy

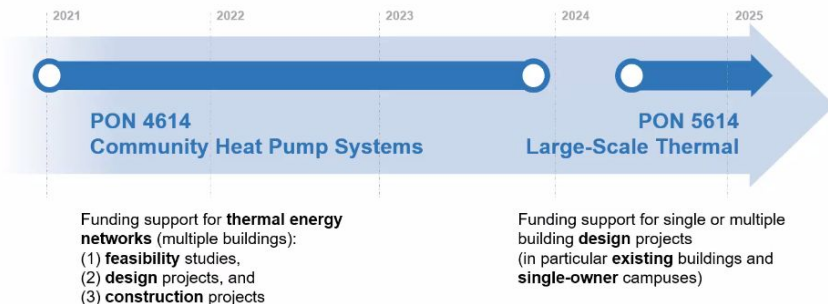


[PON 4614 Feasibility Studies](#)

NYSERDA PON 5614: Funding for TEN Design

- For projects with a feasibility study in hand, seeking to move to the design stage
- Evolved from PON 4614 (Community Heat Pump Systems)
 - Ran 2021-2023: funding for feasibility, design, and construction

Support for Design Projects



Source: NYSERDA PON 5614 webinar, 3/19/25

PON 5614 Considerations

- Round 3 closed 7/31/25
 - PON 4614 (Community Heat Pump Systems)
 - ran from 2021-2023, 10 rounds
- Strategic prioritization of *single-owner, campus-style projects*
 - Colleges, universities, hospitals, residential complexes...
- Must work with an eligible solution provider
- Submission components:
 - Technical content (building and project info)
 - Work plan, schedule, milestones
 - Budget (including additional funding sources)
 - Feasibility study

Large-Scale Thermal*

Provides heating, cooling, and hot water to a single building or multiple buildings using **heat pumps** and **low-carbon thermal resources**:



Geothermal / Ground



Waste heat



Surface water



Wastewater

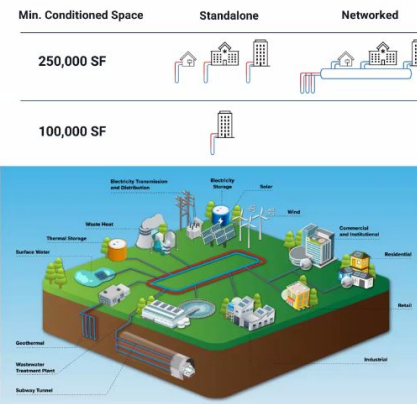


Air



Thermal storage

*Based on eligibility for NYSEDA's PON 5614 Large-Scale Thermal program



Single or Multiple Buildings	Minimum Conditioned Space (SF)	Maximum NYSEDA Funding Per Award	Required Proposer Cost-Share
Multiple	250,000	Up to \$750,000 (existing buildings ¹)	50% of total project cost
Single	100,000	Up to \$300,000 (new construction ²)	

1. Total conditioned space < 50% new construction
2. Total conditioned space > 50% new construction

Source: NYSEDA PON 5614 webinar, 3/19/25

Pause for Questions

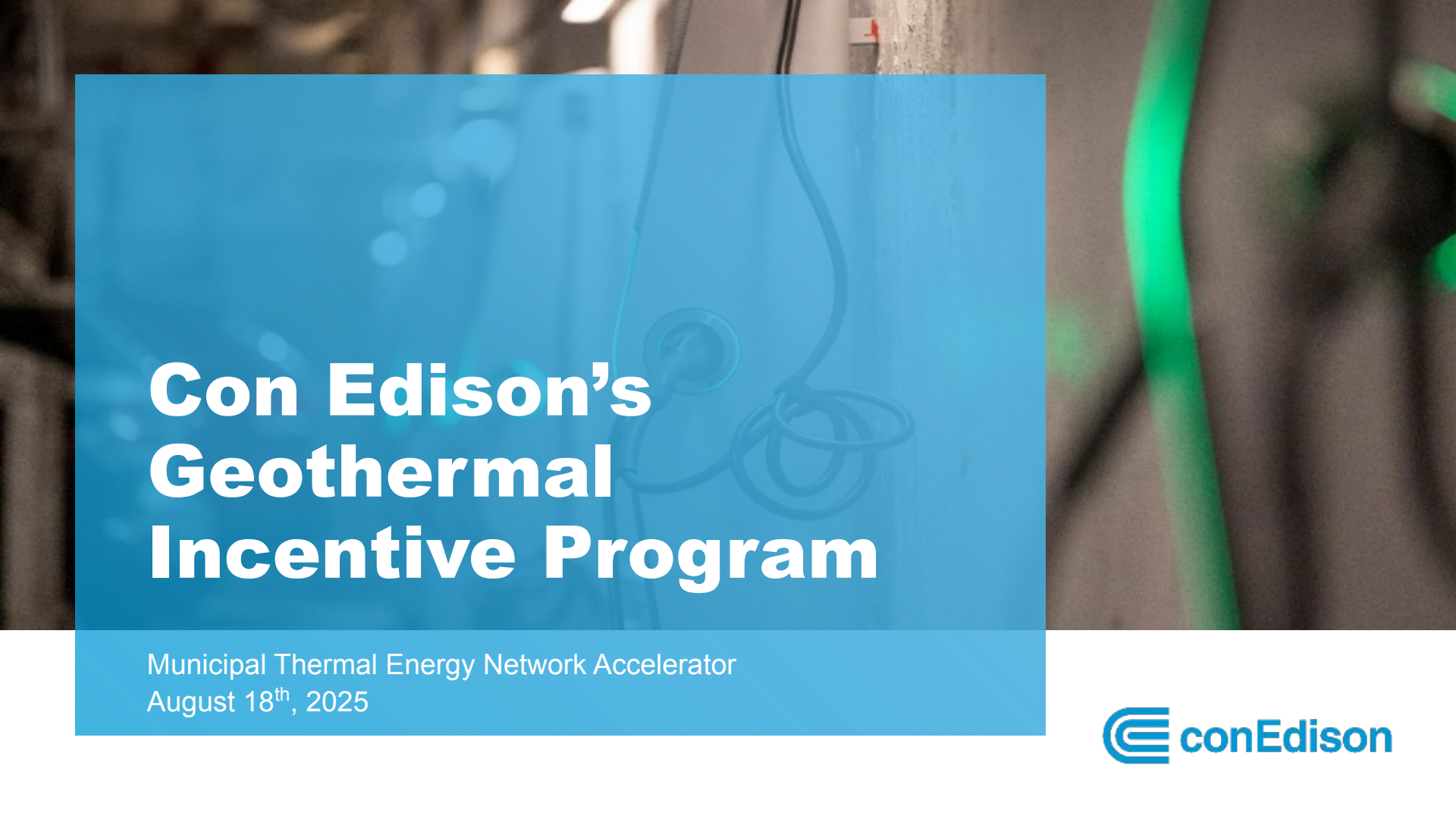


For consideration:

Has your municipality been aware of OR engaged in any of these programs to date? (PON 4614, PON 5614, FlexTech...)

Utility Funding for Thermal Energy Networks

Con Edison Programs & Incentives



Con Edison's Geothermal Incentive Program

Municipal Thermal Energy Network Accelerator
August 18th, 2025



Con Edison's Support for TENs

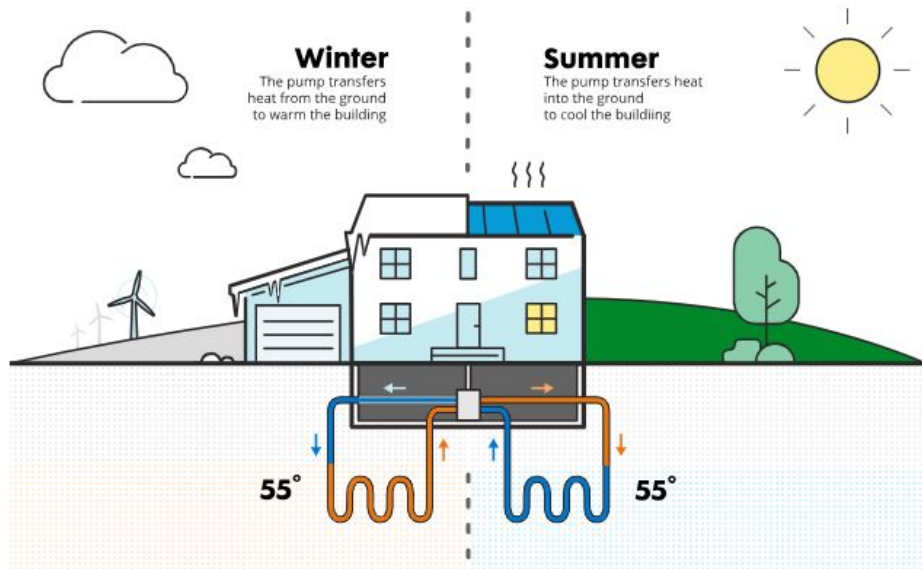
Since the Clean Heat program began in 2020, Con Edison has committed **more than \$50M in customer incentives** to geothermal projects.

Those incentives are bringing geothermal heat pumps to:

- > 700 single-family homes
- ~ 4 million conditioned square feet
- ~ 3,000 apartments, of which ~1,800 are affordable

We have also invested \$18M to develop a pilot portfolio of 3 utility-owned TENs which we hope to build pending PSC approval.

Residential Geothermal Incentives



Residential		
For single-family homes and multifamily buildings ≤ 4 units		
	Single Family Homes	Apartments
Incentive ¹	\$25,000	\$12,500
Enhanced incentive for disadvantaged communities ²	\$35,000	\$17,500

1) Up to 50% project costs

2) Up to 70% of project costs. Check if you live in a Disadvantaged Community here <https://www.nyserda.ny.gov/ny/Disadvantaged-Communities>

Learn more and get started at <https://coned.com/geothermal>

Commercial & Multifamily Geothermal Incentives

Commercial & Multifamily

For commercial buildings and multifamily buildings ≥ 5 units

New Construction

\$125/MMBtu

New Construction*

\$3,000 per apartment

Existing Building

\$200/MMBtu

Existing Building*

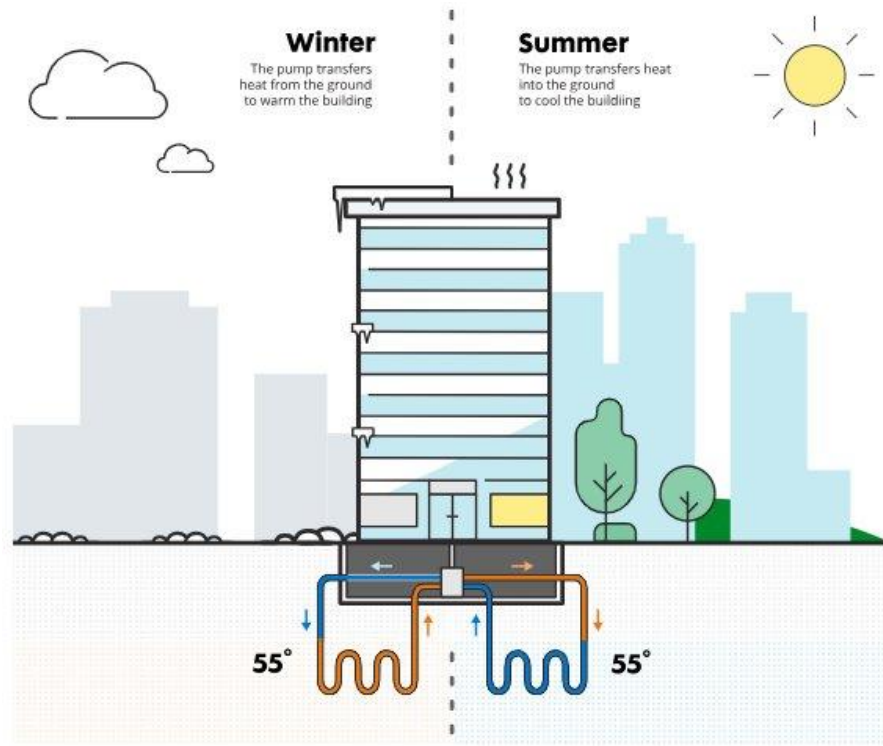
\$6,000 per apartment

Thermal Conductivity Testing

50% of project cost up to \$40k to support TCT for prospective GSHP projects

**Prescriptive rates reflect the installation of GSHPs for space heating and cooling; and domestic hot water.*

All projects are subject to the Clean Heat Program's incentive cap; 50% of project cost or \$1M, whichever is lower.



Contact us at geothermal@coned.com to get started

Case study: The Allen

247 North Avenue, New Rochelle, NY

The Allen is a 28-story, 307-unit (*10% affordable*) multifamily building located in downtown New Rochelle. This project included the installation of:

- 64-boreholes drilled to 500' deep (*32,000 linear feet drilled!*)
- 388 in-unit and common area heat pumps
- Two centralized, heat pump water heaters
- Rooftop energy recovery ventilators
- Above-code windows

Project application: February 2023

Construction: through July 2025

TCO and incentive payment: August 2025

Incentive: \$1.165 M

Developer: LCOR

Participating Contractor: Ecosave Inc.



The Allen under construction.

Utility Thermal Energy Networks and Jobs Act (UTENJA)

In July 2022, New York State law was amended to allow utilities to own, operate and maintain thermal energy networks in their service territories.

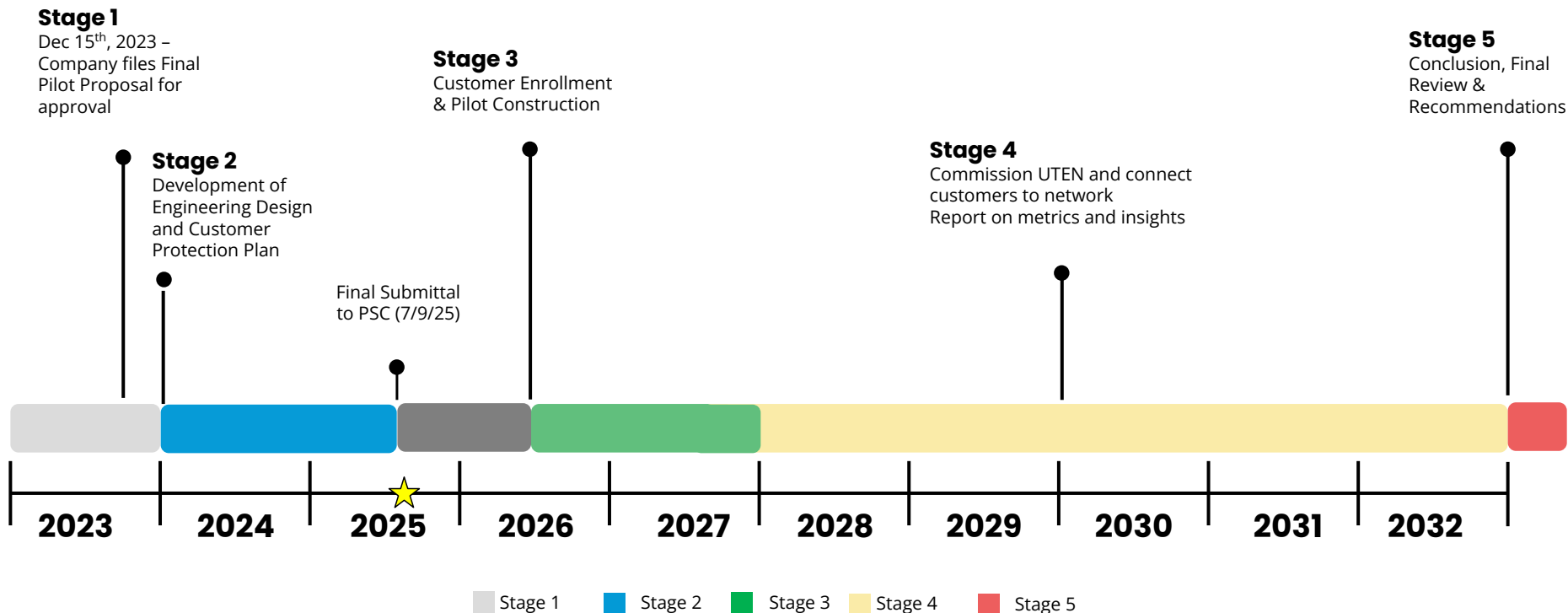
Primary Drivers of the Law

- Decarbonization to achieve emissions goals of New York State's Climate Leadership and Community Protection Act (CLCPA)
- Job creation and workforce development

Statewide Objectives of UTEN Systems

- *Emissions reduction*: Meaningfully contribute to State electrification goals
- *Cost mitigation*: Electrify efficiently to reduce total costs where possible
- *Equity*: Increase access of efficient electrification benefits to disadvantaged communities and/or low-income customers
- *Just transition*: Provide opportunity for transition of gas workforces

UTEN Project Timeline



All Projects Filed Stage 2 on 7/9/2025



**Rockefeller Center
Utility Thermal Energy Network (UTEN) Pilot
Project**

Stage 2 Filing
Final Pilot Engineering Design and Customer Protection Plan

Case 22-M-049
July 9, 2025





**The City of Mount Vernon
Utility Thermal Energy Network (UTEN) Pilot
Project**

Stage 2 Filing
Final Pilot Engineering Design and Customer Protection Plan

Case 22-M-049
July 9, 2025





**Chelsea, Manhattan
Utility Thermal Energy Network (UTEN) Pilot
Project**

Stage 2 Filing
Final Pilot Engineering Design and Customer Protection Plan

Case 22-M-049
July 9, 2025



Next Steps

- Small Update Filing on 7/25/2025
- Public Comment Period (60 Days)
 - Expected August 2025
- DPS Review Period
 - Expected at least until Nov or Dec 2025
- Earliest Approval
 - End of 2025 or Early 2026

Department of Public Service

Matter Master: 22-0458/22-M-0429

Matter Number: 22-0458
Industry Affected: Miscellaneous
Matter Type: Petition
Title of Matter/Case: Proceeding on Motion of the Commission to Implement the Requirements of the Utility Thermal Energy Network and Jobs Act.

Case Number: 22-M-0429
Company/Organization: New York State Department of Public Service
Matter Subtype: Non-Standard
Related Matter/Case No: 24-0005, 23-0217
Assigned Judge:

Filed Documents (849) Public Comments (556) Party List (26) Calendar (3)

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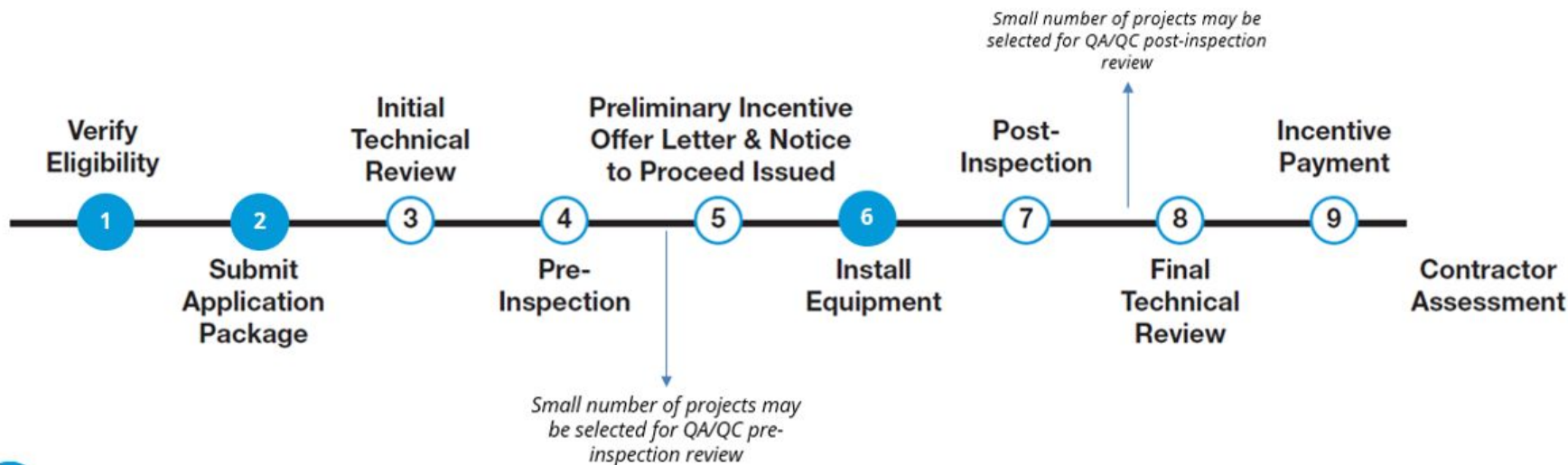
Sl.No.	Date Filed	Document Type	Document Title	Filing On Behalf Of	Item No.	File Name	File Size
1	07/15/2025	Reports	Monthly UTEN/A Report	KeySpan Gas East Corporation d/b/a National Grid, Niagara Mohawk Power Corporation d/b/a National Grid, The Brooklyn Union Gas Company d/b/a National Grid NY	323	Monthly UTEN/A Report 7 15 2025 (fnd).pdf	345.14 KB
2	07/15/2025	Reports	Cover Letter	KeySpan Gas East Corporation d/b/a National Grid, Niagara Mohawk Power Corporation d/b/a National Grid, The Brooklyn Union Gas Company d/b/a National Grid NY	328	Cover Letter 7 15 2025 monthly UTEN report.pdf	78.74 KB
3	07/15/2025	Reports	Cover Letter	New York State Electric & Gas Corporation, Rochester Gas and Electric Corporation	328	2025-07-15 NYSEG-RGE UTEN Monthly Status Report - Cover Letter	103.29 KB

NYS PSC 22-M-0429 Docket

Want to know more?

Email us at geothermal@coned.com

Commercial & Multifamily Process



Contractor/Customer Steps

*Contractor Assessment is only applicable for certain projects



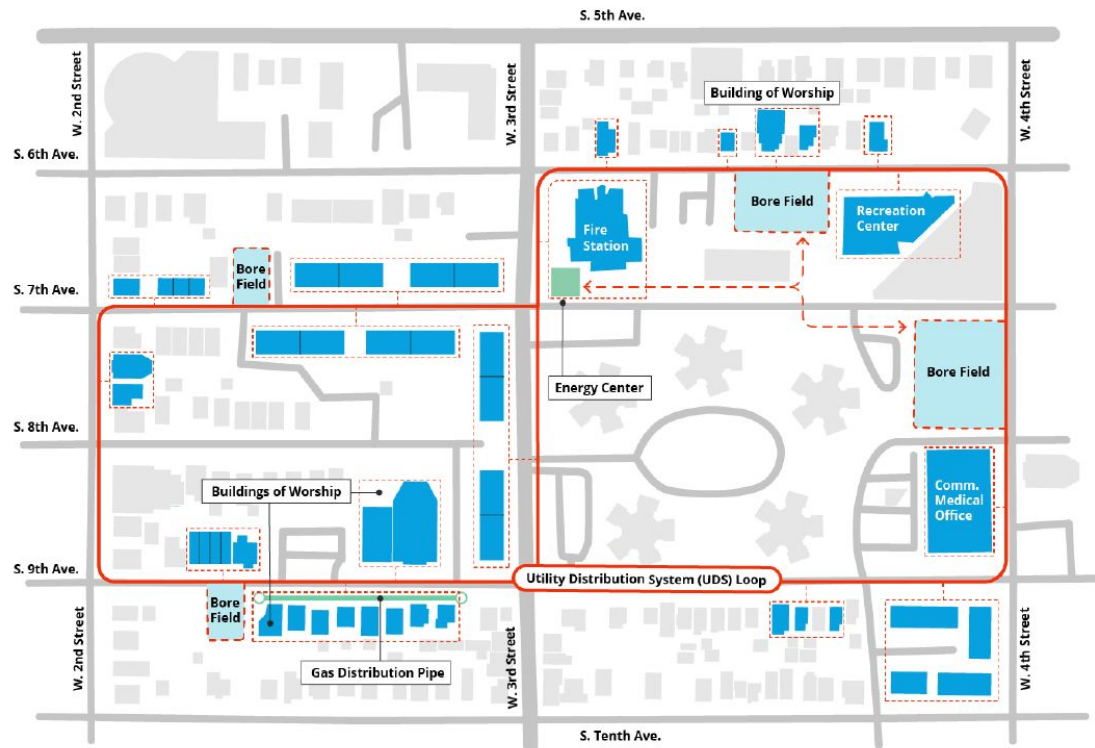
Con Edison Steps

See our [Con Edison Clean Heat Pump Program Manual](#) for a more detailed description of this process.

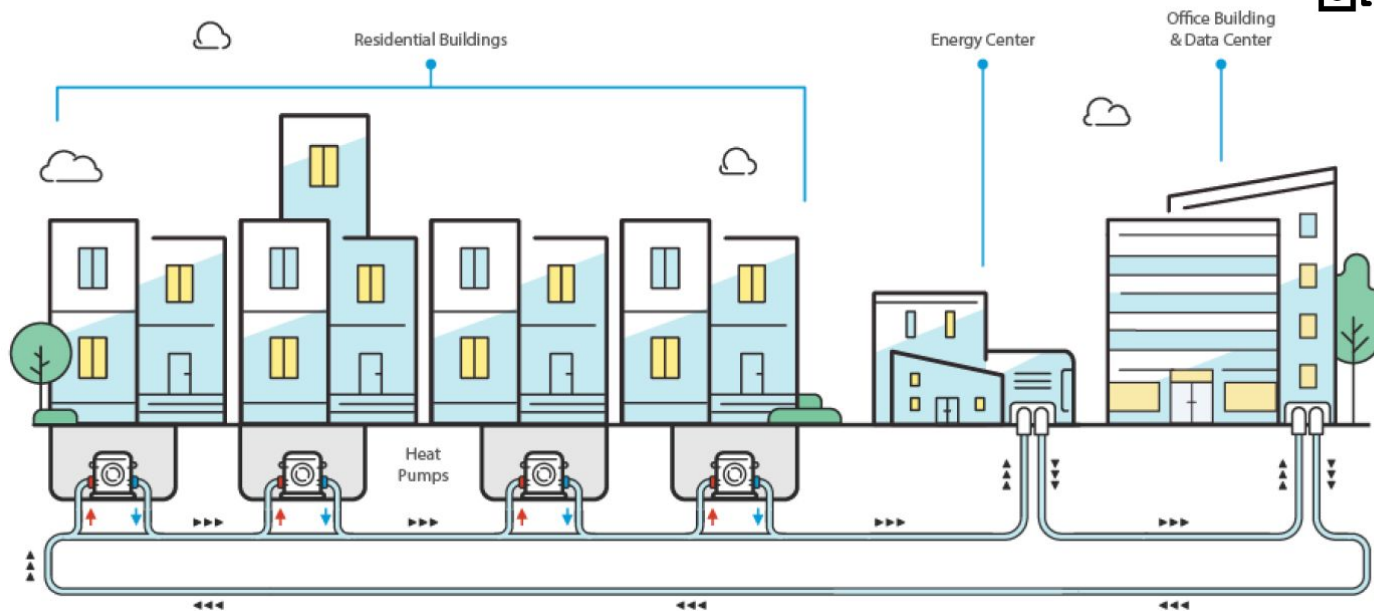
Mount Vernon



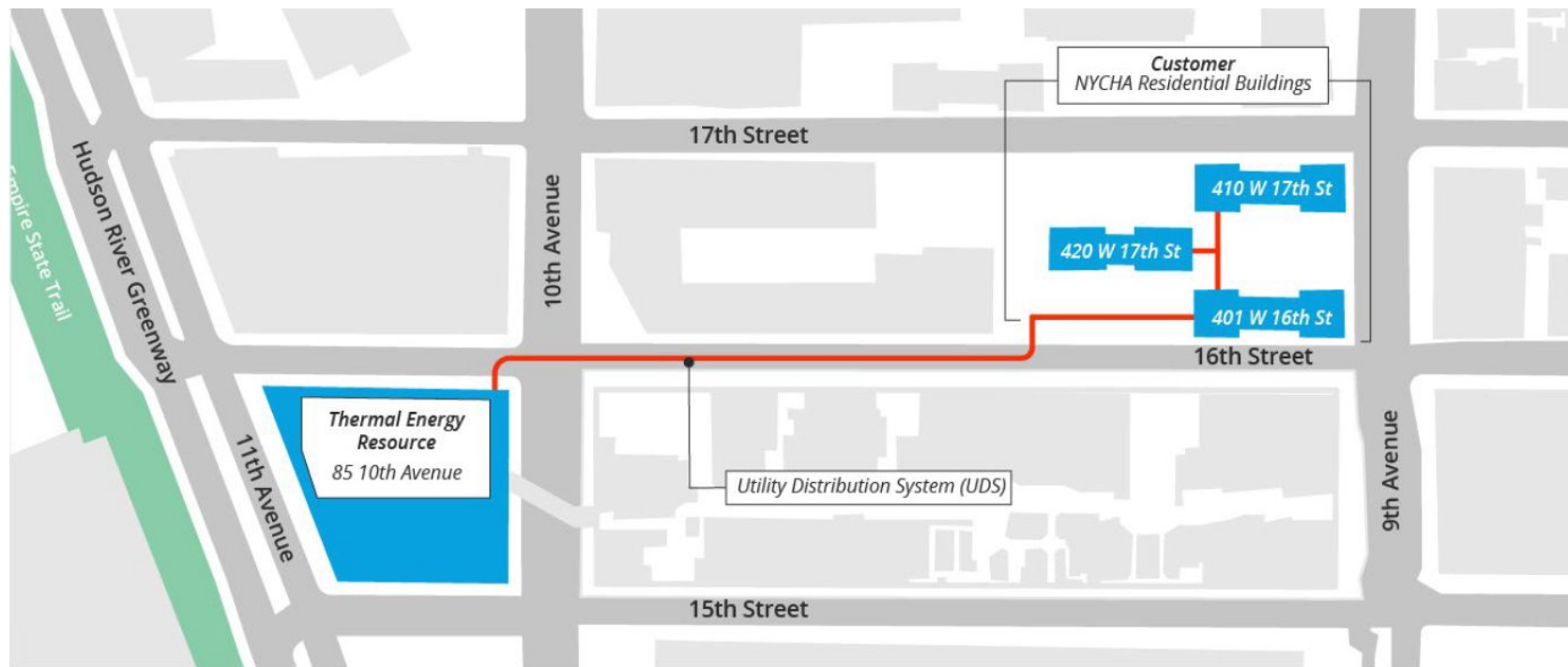
Mount Vernon



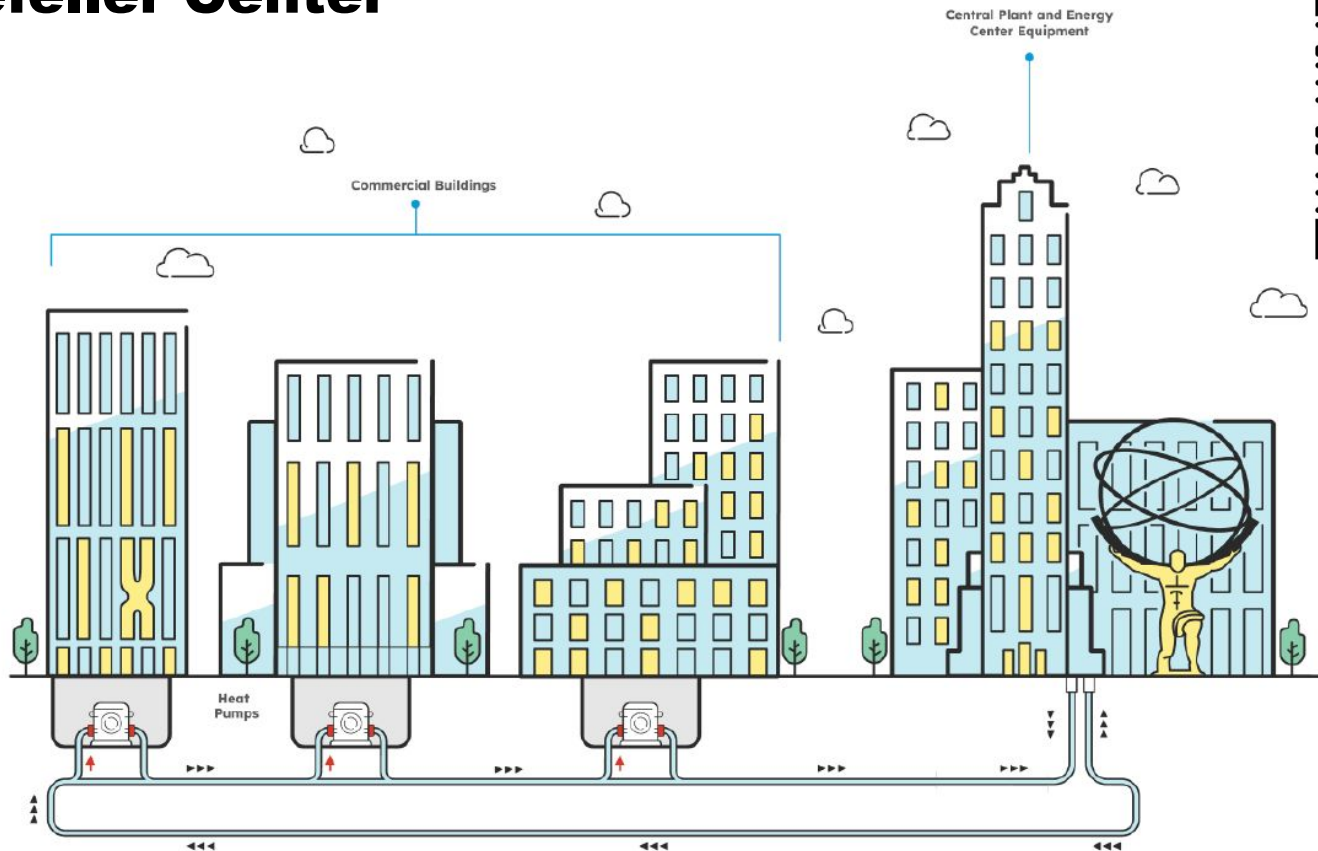
Chelsea



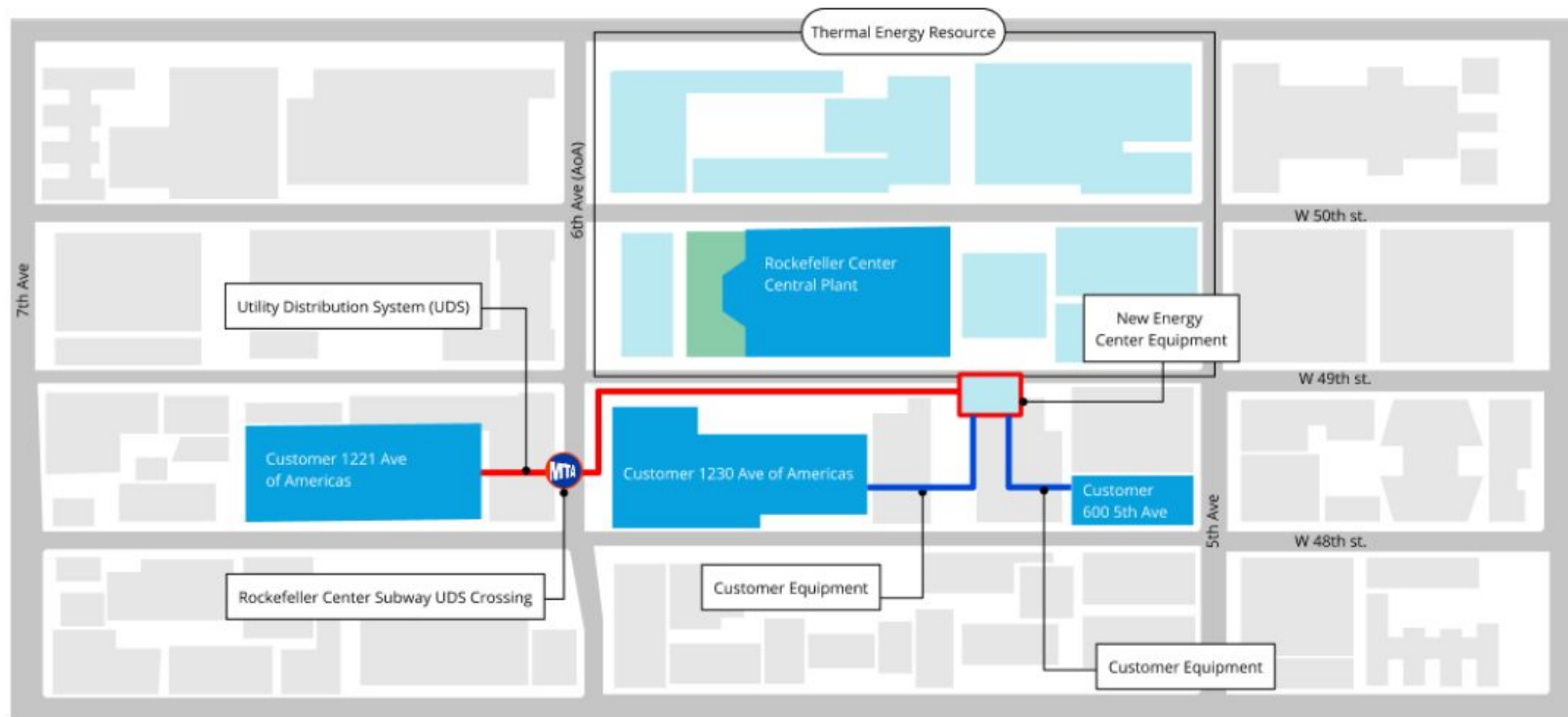
Chelsea



Rockefeller Center



Rockefeller Center



Pause for Questions



For consideration:

What is your municipality's level of awareness with ConEd funding?

Does your municipality have experience with sharing incentive / rebate opportunities with privately-owned projects?

Additional Funding Opportunities

Pre-Electrification & Building Envelope Improvements

Funding streams will differ based on building type:

Single/1-4 family homes:

- NYSERDA: Comfort Home, EmPower+
- ConEd Weather Ready
- Wraparound funding for structural improvements, health and safety needs

Multifamily properties:

- Small Affordable Multifamily Energy Studies (SAMES)
- Technical assistance support for affordable buildings → Owner's Representative Services (NYSERDA)
- Implementation:
 - Affordable housing: AMEEP
 - Low Carbon Pathways program

+ funding for Commercial & Industrial, Small Biz & Nonprofit buildings

Multifamily Buildings: Deep Dive into Programs

Owner's Representative Services: funding for building owners to obtain support services from a qualified solution provider

- Support can range from project planning → construction
- Planning ahead for operations and maintenance

Affordable Multifamily Energy Efficiency Program (AMEEP): administered through the Downstate utilities, provides funding based on a “package” of energy efficiency measures

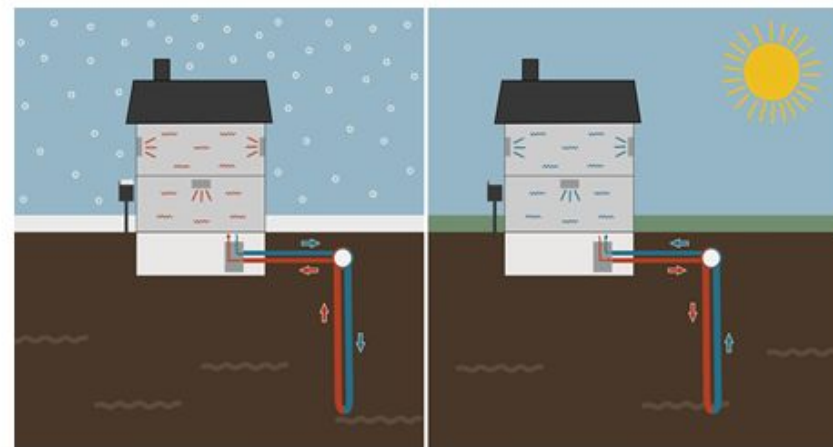
- **Comprehensive vs. non-comprehensive pathways** → can receive funding for more intensive or single-measure projects

Low-Carbon Pathways: for building that are planning or ready to pursue electrification upgrades

- Four categories: envelope, appliances, heating & cooling, domestic hot water
- Incentives are \$ per dwelling unit, based on the category of measures being pursued by the building owner

Heat Pump Installation

- NYS Clean Heat: distributed by the major NYS utilities
 - Funding available for all building types (single family, multifamily, small business, commercial & industrial...)
- NYS Geothermal Energy System Tax Credit:
 - **25% up to \$10,000** for *residential* systems installed after 7/1/25



Source: Vermont Community Thermal Networks

Tracking & Identifying Gap Funding Opportunities

Recurrent funding opportunities that could have applicability to a TEN project:
from feasibility → construction

- REDC Consolidated Funding Application (CFA)
 - Various funding resources across different state agencies
- Identify sector-specific funding opportunities
 - [Empire Building Challenge \(PON 5989\)](#) – Round 1 submissions due 8/14/25
 - [NYS Council on the Arts](#) – Capital Project Fund guidelines are forthcoming
- Databases & tools
 - [Database of State Incentives for Renewables & Efficiency \(DSIRE\)](#)



Regional Economic Development Corporation: Consolidated Funding Application

- Released annually in May – minor changes from year-to-year
- Opportunities across various state agencies and offices:
 - NYSERDA, Homes & Community Renewal, Dept. of Environmental Conservation, Empire State Development...
- Applications typically due in July, announced in late Fall/early Winter
- Varied reporting requirements, timelines for project implementation
- Best practices: demonstrate project readiness, connect with a CFA representative in advance, review 2025 guidance in preparation for next cycle



What REDC CFA Resources *Could* be Relevant to a TEN project?

Empire State Development

- Regional Council Capital Funds*
- Strategic Planning and Feasibility Studies*
- Pro Housing Supply Funds Program

NYSERDA

- Building Cleaner Communities Competition*
- Commercial and Industrial Carbon Challenge*

NYS Homes and Community Renewal

- New York Main Street Program*

NYS Department of Environmental Conservation

- Climate Smart Communities*



**Indicates funding opportunity was available in 2024 and 2025.*

What REDC CFA Resources *Could* be Relevant to a TEN project?

Empire State Development

- Regional Council Capital Funds*: to “expand, construct, restore, or renovate New York State tourism destinations and attractions”
 - Eligible for renovation and new construction projects
 - Municipalities and counties are eligible to apply
- Strategic Planning and Feasibility Studies*: to support planning for future development projects
 - Can include feasibility studies for site(s) for facility(ies) assessment and planning
 - 50% cost share, can be partially supported w/ other grant funding
- Pro Housing Supply Funds Program: can support the “installation, extension, or reconstruction of road, water, sewer, electrical, **or other utilities**”
 - New in 2025
 - Priority for projects that have strong project readiness, local support, commitment from developers

**Indicates funding opportunity was available in 2024 and 2025.*

What REDC CFA Resources *Could* be Relevant to a TEN project?

NYSERDA

- [Building Cleaner Communities Competition](#)*: for new construction, retrofits, gut rehabs
 - **Category A:** commercial, industrial, institutional, muni, mixed-use buildings for **design, construction, or renovation** – to get to all-electric/net-zero
 - Add-on incentives for geothermal heat pumps
 - **Category B:** campus-style projects
- [Commercial & Industrial Carbon Challenge](#)*: awards funds for energy, industrial-process related projects that can reduce carbon emissions
 - Sectors can include: colleges and universities, wastewater treatment plants, muni facilities, schools, retail, food and beverage processing.....

**Indicates funding opportunity was available in 2024 and 2025.*

Pause for Questions



For consideration:

What is your municipality's experience (if any) with REDC CFA funding?

How could your municipality leverage REDC CFA funds to offset the cost of a building decarbonization / TEN project in your municipality?

Preview of Topics for September Financing pt.2



September 22nd
11:00am - 12:30pm

Focus on tax credits & financing:

- Inflation Reduction Act
 - Geothermal tax credit updates and changes
 - Direct Pay updates
- Local Development Corporations (LDCs)
 - Troy Case Study
- Private & quasi-public financing
 - NYPA Incentives
 - C-PACE
 - New York Green Bank
 - Green Jobs Green New York

Thank you!

