



National Policy Call: New York

October 8, 2024

Summary:

- After the passage of the historic Utility Thermal Energy Network and Jobs Act (UTENJA) in 2022, New York became the first state in the nation to create a pathway for gas utilities to operate as thermal utilities, decarbonizing buildings by installing pipes for thermal energy networks instead of gas. Today, environmental advocacy organizations, utilities, unions, and other building decarbonization stakeholders are working to shape the implementation of several New York neighborhood-scale zero-emission thermal energy network projects.
- This call features **Allison Considine from BDC, Commissioner Jeanette Moy from the New York State Office of General Services, Jessica Azulay from the Alliance for a Green Economy (AGREE), Greg Koumoullis from Con Edison, and Brett Thomason from the Enterprise Association of Steamfitters Local 638** as they explore the progress New York is making on the development of utility and non-utility thermal energy networks, and the opportunities and challenges that lie ahead for New York's neighborhood-scale transition to clean heating and cooling.

Resources:

- [Slides](#)
- [Youtube Recording](#)
- [BDC Presents: State of the Union: Post-Election Decarb Outlook](#): Nov 7th, 10 am PT/1 pm ET

Presentation Summaries

NY Policy Landscape (Allison Considine, Senior Manager, NY Campaigns & Communications, BDC)

- [Climate Leadership and Community Protection Act](#) (2019): Flagship climate law mandating New York achieve a net zero economy by 2050 with 85% emissions reductions economy-wide and a zero-emission electric sector by 2040. It also requires that 40 percent of the benefits of these investments go to disadvantaged communities.
- [Utility Thermal Energy Network and Jobs Act \(UTENJA\)](#) (2022): Authorized investor-owned utilities (IOUs) in New York to propose up to five pilot thermal energy network projects each with labor equity standards.
 - [Thermal Energy Networks](#) (TENs): Heating and cooling systems where buildings share thermal energy via ambient temperature water pipes and use a non-combusting, non-emitting energy source.
- Other relevant climate policies in New York: [Executive Order 22 of 2022, the Decarbonization Leadership Program](#), [Local Law 97](#)

Investing in Decarbonization (Commissioner Jeanette Moy, New York State Office of General Services)

- Current Decarbonization Progress at the Office of General Services (OGS)

- OGS oversees and manages state buildings of approximately 30 million square feet across New York State (NYS). In the past, OGS has focused primarily on energy efficiency and currently has reached 90% of the [NYPA Buildsmart](#) goal (a reduction of about 11 trillion BTU energy saving by state facilities by 2025)
- Now, OGS is focused on decarbonization and overall energy usage at the Empire State Plaza
- Decarbonizing the Empire State Plaza
 - Empire State Plaza Details
 - Energy Baseline: contributes 78k metric tons of GHG a year from natural gas usage, and 12K metric tons of GHG a year on the electric side (see [slide 14](#) for more details)
 - 12 million square feet of office space use steam for heating and cooling
 - Due to decades of disinvestment in government buildings, there is a significant amount of deferred maintenance required leading to increased cost of decarbonization
 - The [ESP Energy Infrastructure Master Plan](#) study advised a three-phase approach to effectively decarbonize the plaza (see [slide 16](#) for the Draft Decarbonization Phasing Plan)
 - Phase 1: Install electric chillers and install a heat recovery chiller
 - \$100 million in funding to OGS and the New York Power Authority (NYPA) for the first phase of decarbonizing the Empire State Plaza
 - Phase 2: Modernization and energy efficiency upgrades to the Health Laboratory
 - Phase 3: Building renovations and integrating a thermal energy network into Empire State Plaza building systems
 - For the TEN, OGS and NYPA are specifically looking into geothermal and wastewater heat recovery because it is closer situated to the Plaza

UPGRADE NY (Jessica Azulay, Executive Director, Alliance for a Green Economy)

- A collaboration of environmental, labor, and environmental justice organizations that formed in 2022 to advance TENs in New York State. This collaboration came together with a few weeks left in that year's legislative session and worked to pass UTENJA.
 - UTENJA's goal is to open up a path forward to demonstrate the viability of thermal energy networks and build a regulatory framework and utility business model that will support these projects in the long run.
- Barriers to advancing TENs
 - The obligation to serve: a provision that mandates utilities must continue to serve gas to new and existing customers, despite climate goals and other more economical and environmentally friendly ways to serve heat (e.g. TENs). Though TENs are being built out, if the gas system is being built out at the same time then we cannot decommission the gas system.
 - A potential solution: The [NY HEAT Act](#) which did not pass in 2024, would have amended the obligation to serve so that companies are required to serve heat, not necessarily gas
- Opportunities for TENs
 - Utility pilot projects and NYPA projects
 - Policy opportunities

- NYS Energy Plan: an opportunity to explicitly make long-term commitments to advance and fund thermal energy projects
- Grid of the Future Proceeding: the Public Service Commission is looking to advance customer-centric strategies to reduce traditional electric infrastructure investments and TENs can provide reductions in energy peaks and be beneficial for the electric grid

UTEN Pilot Projects (Greg Koumoullou, Department Manager- Thermal Energy Networks, Con Edison)

- Con Edison is an investor-owned utility in New York that has identified three different UTEN pilot projects (see [slide 25](#) for map details)
- Rockefeller Center Project: Primarily large commercial office buildings close to each other, which means the buildings are cooling dominant at all times of the year
 - Project design: capture the hot air that buildings release and transfer it into a utility distribution system to distribute the heat to three neighboring large commercial office buildings (no boreholes).
 - Known challenges: Getting large pipes across congested streets of Manhattan and dealing with different building ownership
- Chelsea Project: Primarily commercial office buildings, but this set has a large data center that requires even more intensive cooling.
 - Project design: capture the hot air from these office buildings and connect it to the New York City Housing Authority Buildings (no boreholes).
 - Known challenges: how to retrofit these vintage buildings to make them work with the TEN
- Mount Vernon: A suburban area with family homes and mixed-use buildings, such as churches, a fire station, and a recreation center. This location was selected to see if TENs can be blueprinted and put anywhere. It was identified as a potential location because if they can connect all nine buildings, a section of the gas main could be retired and does not require replacement.
 - Project design: A closed-loop ambient temperature system with three borefields (~100-130 800 feet boreholes). Customers can voluntarily join the system, significant outreach was done to educate customers.
 - Known challenges: Not near a direct thermal resource

Union Workforce and TENs (Brett Thomason, Political Director, Enterprise Association Steamfitters Local 638)

- Steamfitters Local 638 is a union representing over 9,000 members that maintains jurisdiction over all general pipefitting in New York City and Nassau and Suffolk Counties on Long Island and is affiliated with the United Association. In New York, steamfitters are responsible for installing the HVAC system in large buildings.
- How do union training models for building trade generally work?
 - Over five years, members in apprenticeships work full-time learning on the job from an experienced worker and then at night and on the weekends, they attend school. Each year, their wages escalate and they have full benefits (pension, dental, and vision for them and their families). This model also supports the pension and health funds of retired union workers and is all fully funded by members.

- Apprenticeships are only offered if the union can train and provide work for them once they finish their apprenticeship, so work has to be there before a union will create an apprenticeship.
 - For Steamfitter Local 638, three thousand applicants applied for the 150 available apprenticeships they had, highlighting their desire to join the field.
- Steamfitter Demand and TENS
 - Historically, members have worked on mechanical systems, buildings, and fossil fuel power plants. As policy shifted away from fossil fuels, unions became worried about the lack of work.
 - Being a part of UpgradeNY is important for Steamfitter Local 638 because it helps them better understand steamfitting demand and include them in the transition.
 - TENS help alleviate this concern because they require a lot of pipework and will use the existing skill set union members have. Upskilling and continuing education are still required, but the union is tailoring the training to make sure they are getting these skills.
 - One aspect of UTENJA that was important was strong labor standards and prevailing wage requirements that protect the existing union workforce and incentivize its use. It also requires employing members of the local community and workforce requirements to diversify the workforce as well.

Q & A

1. **What lesson learned would you urge your counterpart in another state to consider in advancing thermal energy networks?**
 - **Commissioner Moy:** Great question. The ESP Energy Infrastructure Master Plan study we did was incredibly comprehensive. One thing I advise is to have good community conversations early in the process. I think ensuring that our priorities are clear, dispelling concerns about the intention, and delivering on our promises is critical.
 - **Jessica Azulay:** I would emphasize the importance of building collaboration around focused goals and where there is a win for everyone involved and staying focused there. As I mentioned before, not every group in UPGRADE agrees on everything about this transition, but we are all passionate and excited about TENS. So focusing our collaborative work there together and trying to get projects moving and done rather than focusing on areas of disagreement ensures that we are making progress on our shared goal.
 - **Greg Koumoullis:** I encourage people to focus on understanding these systems, how they work, and how they impact our existing systems, whether gas or electric. I think it's important that companies, regulating authorities and other stakeholders start peeling back the hood and seeing how these work, what impacts they would have, and where they make the most sense. It's important that we collectively all invest heavily in the design and implementation of TENS for these pilots so that we can learn more about them and make sure its
 - **Brett Thomason:** This is more for union counterparts in the building trades, but it is important to understand that the energy transition is coming. We're well past the time where we can be oppositional to it or hope that it won't happen, which I've seen happen with too many locals and building trade councils across the country. We need to understand where our role is and make sure that our membership is centered and that it's an opportunity for more work. On the business side, we

need to be more organized to recognize where this work is being done and capture it so that it is done by a unionized workforce.

2. Can you share the links for the pre-apprenticeship programs that you partner with? Is there a link for the steam/pipefitters programs?

- **Brett Thomason:** Here are links to the five pre-apprenticeship programs we partner with as part of our diversification initiative:
 - <https://www.constructionskills.org/>
 - <https://www.new-nyc.org/>
 - <https://helmetstohardhats.org/>
 - <https://opportunitieslongisland.org/>
 - <https://p2atrades.org/>
- Here is the link to our apprenticeship program: <https://steamfitters638.org/apprenticeship.aspx>
- Here is a link from the National Building Trades highlighting construction apprenticeships: <https://nabtu.org/school-resources/>

3. Can you say more about the job projection methodology?

- **Brett Thomason:** The methodology is not precise nor is it dictated by a rigid formula. Rather, we look at a mix of factors, including our current unemployment numbers, our upcoming jobs in the pipeline due to signed project labor agreements (currently that is about 4.5 billion Building Trades work in new work over the next 4-5 years,) as well as accounting for ‘public works’ jobs that are scheduled, meaning jobs that have a city/state/federal subsidy to them. Lastly, we factor in how many current members are due for retirement, so that we can make sure we are replacing them with a skilled and trained counterpart. There is not an exact science to this, but the goal is to ensure that we are always meeting the demand of the market so that we can compete for jobs while also ensuring that we don’t train people for a job that doesn’t exist.