October 27, 2025

**By Electronic Submission**

Honorable Michelle Phillips
Secretary
State of New York
Public Service Commission
Three Empire State Plaza
Albany, New York 12223-1350

CASE 22-M-0429 - Proceeding on Motion of the Commission to Implement the Requirements of the Utility Thermal Energy Network and Jobs Act.

Dear Secretary Phillips:

In regard to the New York State Public Service Commission's ("PSC" or "the Commission") September 5, 2025, issuance titled "Notice Soliciting Comments Regarding Final UTEN Pilot Project Engineering Design And Customer Protection Plans,"[1] Sustainable Westchester and the Pace Energy and Climate Center respectfully submit these comments on the Stage 2 Design Plan for The Mount Vernon Pilot Project filed by Con Edison on July 10, 2025, and supplemented on July 25, 2025.[2]

## 1. Introduction and Summary of Comments

Sustainable Westchester ("SW") and the Pace Energy and Climate Center ("PECC") respectfully submit these comments regarding Consolidated Edison Company of New York's ("Con Edison" or "the Company") Mount Vernon Utility Thermal Energy Network ("UTEN") Stage 2 Design Plan ("Design Plan"), filed in compliance with the Order Providing Guidance on Development of Utility Thermal Energy Network Pilot Projects in

[1] Case 22-M-0429, Notice Soliciting Comments Regarding Final Utility Thermal Energy Network (UTEN) Pilot Project Engineering Design and Customer Protection Plans, *Proceeding on Motion of the Commission to Implement the Requirements of the Utility Thermal Energy Network and Jobs Act ("UTENJA")* (Sept. 5, 2025).

[2] Consolidated Edison Co. of N.Y., Inc., *The City of Mount Vernon Utility Thermal Energy Network (UTEN) Pilot Project: Stage 2 Filing Final Pilot Engineering Design and Customer Protection Plan* (July 10, 2025) (filed in Case 22-M-0429, *Proceeding on Motion of the Commission to Implement the Requirements of the UTENJA*) ("MV UTEN Design Plan").

Case 22-M-0429.[3] SW and PECC commend Con Edison and the City of Mount Vernon (the "City") for their leadership in advancing this first-of-its-kind district thermal demonstration and appreciate the extensive documentation and transparency provided through this Stage 2 filing.

In our review of the filing and its appendices, we have identified a few key points, including certain aspects that may warrant further review and consideration by the Public Service Commission (PSC). These are outlined below:

- **Con Edison's filing details a thermal energy network (TEN) system design that – to the best of our knowledge – appears to be technically feasible.** Greater transparency is needed in highlighting the decision-making that guided key cost drivers (such as the relocation of borefields and the addition of air source heat pumps as a thermal recharge & emergency backup system), though it is evident that significant resources and careful planning have gone into producing this Stage 2 Design Plan.
- **Con Edison and the City of Mount Vernon's collaborative partnership should be considered a strong model for multi-stakeholder projects (particularly TENs).** We commend the shared commitment to robust customer outreach and education, as well as the consumer protections embedded throughout the pilot's lifecycle.
- **The addition and expansion of certain metrics on customer experience, workforce development, and equitable participation could provide a more detailed analysis of the project's impact.** These metrics will be essential in illustrating, verifying, and hopefully proving the economic, environmental, and societal benefits commonly associated with TENs.
- **Greater clarity is warranted regarding cost recovery allocations between electric and gas customers and the treatment of costs as regulatory assets.** The PSC should ensure that cost recovery mechanisms remain transparent, equitable, and proportionate to system-wide benefits.
- **The Commission should direct utilities to prioritize post-pilot pathways that maintain or transition UTEN operations rather than reverting customers to fossil-fuel systems**, ensuring that ratepayer and public investments result in durable clean energy infrastructure aligned with the CLCPA.
- Keeping in mind the points outlined above (which are expanded on throughout this document), **SW and PECC ultimately recommend that the PSC approve Con Edison's Stage 2 Design Plan for the Mount Vernon UTEN project,** allowing the project to move to Stage 3, while directing Con Edison to incorporate, where feasible, the suggestions and recommendations made in these comments, either

[3] Case 22-M-0429, Order Providing Guidance on Development of Utility Thermal Energy Network Pilot Projects, *Proceeding on Motion of the Commission to Implement the Requirements of the UTENJA* (Sept. 14, 2023) ("2023 UTEN Guidance Order").

through updates to the final Stage 2 Design Plan or in subsequent actions under later stages.

TENs are a proven, effective method for facilitating large-scale decarbonization, and will play a significant role in helping New York State meet its climate goals and commitments. The Mount Vernon Pilot Project appears poised to deliver many local benefits, such as lowering greenhouse gas emissions, improving rate payer comfort, promoting local job opportunities, and reducing peak electricity usage compared to other electrification methods for space heating and cooling.

***About the Organizations***

*Sustainable Westchester* is a nonprofit, municipal member organization. Sustainable Westchester leads our region in meeting the urgent challenges of climate change and achieving a rapid, just, and affordable transition to clean energy. Key programs and initiatives include:

- Westchester Power: community choice aggregation program supplying renewable electricity to over 100,000 residents and small businesses in Westchester County.
- Solar: facilitates Community Solar and Residential, Municipal, and Commercial Solarize programs to accelerate the adoption of solar in Westchester County.
- Building Decarbonization: providing guidance on the installation of energy-efficient, clean heating and cooling technologies in buildings of all types and sizes. Primary services include residential and commercial energy advising, TEN advancement, and demand response efforts.
- MOVE (Microgrid Optimized Vehicle Electrification): identifying sites to host next-gen EV charging infrastructure powered by solar and battery energy storage.

*Pace Energy and Climate Center* is a nonpartisan research and policy institute based at the Elisabeth Haub School of Law at Pace University. PECC works at the intersection of law, policy, and technology to advance an equitable and effective transition to a clean, resilient, and affordable energy system. The Center's mission is to accelerate climate solutions by supporting sound regulatory frameworks, empowering communities, and driving innovation in clean energy deployment. Key program and service areas include:

- Energy Policy and Regulation: providing expert legal and technical analysis before state and federal agencies and leading multi-stakeholder coalitions to strengthen and advance equitable clean energy policy, including energy affordability, utility reform, and electrification initiatives.
- Thermal Energy Networks and Building Decarbonization: supporting municipalities and community organizations in developing networked thermal energy heating and cooling systems. PECC's applied research aims to influence governance models, regulatory pathways, and financing mechanisms for large-scale district thermal.

- Community Energy and Justice: working with the public, state and local government, industry, and other stakeholders to ensure energy programs and climate solutions deliver local benefits, create good jobs, and include meaningful community participation.

SW and PECC and collaborate closely on municipal decarbonization initiatives aimed at advancing thermal technologies and TENs in Westchester County (and throughout New York State) and aligning local leadership with statewide clean energy goals.

## 2. COMMENTS ON QUESTIONS POSED IN THE SEPTEMBER 5, 2025, NOTICE

### I. Pilot Design

#### b. *To what extent does the Filing demonstrate a technically feasible design for the provision of thermal energy in compliance with the Utility Thermal Energy Network and Jobs Act (UTENJA)?*

*Please note that responses for this section will also touch on financial considerations – specifically, how certain design aspects that are <u>also</u> identified as significant cost drivers could impact the pilot's scalability as a model for other TENs.*

The Stage 2 Design Plan filing proposes a TEN in the City of Mount Vernon that will connect 42 existing buildings and one new, mixed-use Energy Center. The system will consist of 127 boreholes across 4 borefields and a two-pipe, single-loop system that will provide space conditioning for 432,170 square feet of occupied space (including 252 residential units) – as well as supplying domestic hot water where feasible.[4]

SW and PECC commend the level of detail and due diligence that went into developing the Stage 2 filing. It is encouraging to see the incorporation of a broad range of building types with diverse heating and cooling loads, rather than zoning in on a limited number of high-load buildings – which, as Con Edison pointed out, helps to "manage thermal demand and reduce infrastructure requirements."[5] Additionally, early consideration on how to design the system to accommodate future scalability – for example, through the installation of larger-than-needed pipes for the Utility Distribution System (UDS) – indicates a high level of preparedness and forethought.[6]

Alignment with concurrent infrastructure projects further strengthens the case for the pilot's technical feasibility. This includes the incorporation of areas with leak-prone natural

[4] MV UTEN Design Plan at pp. 7-9, 19, & 38.
[5] *Id*. at p. 22.
[6] *Id*. at pp. 22-23.

gas pipe, and realigning project timelines to be done in conjunction with pre-planned excavation and paving projects.[7] Secondary review of the proposed designs by industry experts like Kerr Wood Leidal and RCM Energy Services provides additional assurance that careful consideration was given towards ensuring a well-designed, comprehensive pilot proposal.[8]

Certain aspects of the proposed design may warrant further review by the Commission. SW and PECC appreciate Con Edison's detailed accounting and cost estimates but note that several key sources of cost escalation – including the addition of a newly-constructed Energy Center building, inflation assumptions, and borefield relocation – lack clear documentation on the decision-making process (such as whether they were driven by one-time construction conditions, scale effects, or design choices).[9] The Commission should direct Con Edison to clarify these distinctions and provide cost sensitivity testing to demonstrate how each assumption affects total project costs.

Key cost drivers and design aspects that stood out in our review include the planned back-up and supplementary thermal energy systems – namely, the inclusion of air source heat pumps (ASHPs) in the pilot's proposed design. The ASHPs are proposed to serve the purposes of recharging the borefields annually (primarily during extreme weather or load conditions), providing heating and cooling during the shoulder seasons, and supplying emergency backup on peak summer or winter days (when needed.)[10]

- This adjustment was cited as necessary due to the removal of the largest borefield in the original design, specifically done "to accommodate Mount Vernon's plans to build a Youth Center building with a basement."[11] Additional context may be warranted to assess whether this necessitated the whole removal of the borefield (rather than decreasing the original size) and the subsequent addition of the ASHPs.
- Details on alternative design scenarios and consideration of other back-up and supplementary sources may also be helpful in providing more context behind the decision-making process – including how different configurations were evaluated for cost sensitivity and thermal performance.[12] For example, it would be helpful to see if thermal storage and/or alternative modes of ambient heat capture were proposed or reviewed for feasibility.

  Integrating these technologies into TENs has been shown to substantially improve efficiency and reduce peak demand compared to systems that rely heavily

[7] *Id*. at pp. 8, 29-30.
[8] *Id*. at pp. 25-26.
[9] MV UTEN Design Plan at pp. 17-18, 22-24, & 98-102.
[10] *Id*. at pp. 19-21 & 35-36.
[11] *Id*. at p. 19.
[12] *Id*. at p. 99, § 8.4.

on ASHPs. Case studies and reviews find that combining building thermal mass and geothermal or seasonal storage can reduce fossil backup needs by up to 20 percent and smooth load profiles more effectively than ASHP systems.[13]

Other research and demonstration projects in New York show that recovering ambient waste heat from wastewater, refrigeration, and in-building cooling systems further enhances system efficiency and reduces both winter and summer peaks relative to geothermal-only or ASHP-only configurations.[14] Several of the building types in Table 1, including the medical center, recreation center, and fire station, are well suited for future waste-heat recovery, as each contains equipment that continuously rejects low-grade heat.[15]

In general, SW and PECC urge the Commission to carefully evaluate the necessity and scalability of a backup system of this size and configuration while recognizing the City of Mount Vernon's development needs and planning constraints. Given that the Energy Center, including the proposed ASHP system, represents one of the largest project cost drivers at about $26.71 million,[16] additional clarity on how this design balances reliability, demand reduction, long-term value, and affordability would be beneficial. Rather than reconsidering the inclusion of ASHPs outright, the Commission may encourage Con Edison and the City to explore options for optimizing or phasing such systems as operational data becomes available. Close review of projected ASHP use, including startup frequency and hours of operation, would help determine whether this component delivers sufficient system benefit relative to its cost and inform future network design.[17]

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[13] Schilt et al., *How Can a Geothermal Storage System Be Optimally Integrated into a Local District?*, arXiv preprint arXiv:2509.08568 (2025), at 7–10, available at https://arxiv.org/abs/2509.08568 (demonstrates geothermal seasonal storage cut fossil backup use by ~20% and improved efficiency); Fry, *A Review of District Energy Technology with Subsurface Thermal Energy Storage*, 12 *Geothermal Energy* Art. 34 (2024), at 4–6, available at https://geothermal-energy-journal.springeropen.com/articles/10.1186/s40517-024-00308-3; and U.S. Dep't of Energy, *Thermal Energy Storage Technology Strategy Assessment* (2023), at 22–25, available at https://www.energy.gov/sites/default/files/2023-07/Technology%20Strategy%20Assessment%20-%20Thermal%20Energy%20Storage_0.pdf (confirms TES improves grid flexibility and reduce electrified heating peaks).

[14] Maryland Energy Administration, *Electrical Grid Impact of Ground Source Heat Pump Technologies* (2025), available at https://energy.maryland.gov/Reports/Electrical Grid Impact of Ground Source Heat Pump Technologies.pdf (the "Maryland GSHP Study") (finds that integrating waste-heat recovery from buildings and wastewater systems reduces peak electric demand and enhances system efficiency); NYSERDA, *Empire Building Challenge Projects* (visited Oct. 2025) (entries for Amalgamated Housing Corp. and Joint Ownership Entity NYC noting wastewater heat recovery), https://www.nyserda.ny.gov/All-Programs/Empire-Building-Challenge/Empire-Building-Challenge-Projects; NYSERDA, *Boston Properties Case Study: 601 Lexington Ave* (2023), https://www.nyserda.ny.gov/About/Publications/Featured-Case-Studies/Boston-Properties; *Retrofit Playbook: 601 Lexington Avenue* (2024), https://retrofitplaybook.org/resource/601-lexington-avenue-2/.

[15] MV UTEN Design Plan at pp. 33–34.

[16] *Id.* at p. 22.

[17] *Id.* at pp. 20-21 & 35-36.

### *c. To what extent does the Filing demonstrate a credible business model for the operation of the UTEN?*

SW and PECC understand that there have been extensive efforts from the City of Mount Vernon and Con Edison to foster a meaningful, effective, and collaborative relationship, which will be crucial in ensuring successful implementation of the pilot. The Mount Vernon Pilot clearly demonstrates the importance of early coordination with key stakeholders – particularly given its multifaceted role as the Authority Having Jurisdiction (AHJ), owner of the planned bore field sites, and UTEN customer (with the project involving two municipal buildings).

One potential complication regarding the proposed system design relevant to a credible business model is the project's eligibility for the Internal Revenue Code (IRC) Section 48 Investment Tax Credit (ITC), which Con Edison plans to investigate further in Stage 3. PECC and SW concur with the plan to engage a qualified tax consultant regarding the pilot's ITC eligibility – particularly given its potential for lowering the overall project costs.[18] Rules regarding split ownership will be particularly relevant in this instance, given the Stage 2 filing's current system ownership structure for borefield/borehole, ground loop, and heat pump components.

To the greatest extent feasible, certain changes enacted under H.R. 1 (the "One Big Beautiful Bill Act") in July 2025 should be at least contemplated at the current Design stage to ensure the project is structured to maximize qualification for the Section 48 ITC.[19] Of particular importance are amendments to the IRA's clean energy provisions that revise ownership, leasing, and eligibility rules for geothermal "energy property."

Under H.R. 1, the IRC § 48 ITC now expressly permits the owner of qualifying geothermal "energy property" to lease system components, including heat pumps, to customers while retaining ITC eligibility.[20] This provision modifies how geothermal heat pumps are treated for Section 48 ITC eligibility and ownership determination, aligning their treatment more closely with solar energy property rules and carrying implications for service contract and leasing arrangements under IRC §§ 48 and 168.

The repeal of the "limited use property" rule under IRC § 50(e) removed the prior restriction that disqualified leased geothermal equipment from the credit when leased for

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[18] *Id*. at p. 24.

[19] One Big Beautiful Bill Act, H.R. 1, 119th Cong. (2025), https://www.congress.gov/bill/119th-congress/house-bill/1/text; Pub. L. No. 117-369, Inflation Reduction Act of 2022, 136 Stat. 1818.

[20] H.R. 1, 119th Cong. § 70513(c)(2) (2025), amending 26 U.S.C. § 50(e).

most of its useful life.[21] As long as Con Edison, as the taxpayer, maintains ownership and operational control of the full unit of energy property (i.e., borefields, ground loops, and at least one heat pump), it may lease individual heat pumps to UTEN customers while preserving eligibility for the Section 48 ITC and associated depreciation benefits. This change is especially relevant for the Mount Vernon pilot's business model, as it would enable Con Edison to retain ITC eligibility while offering customer-facing heat pump leasing arrangements consistent with federal ownership rules. The revised structure allows ratepayers to benefit from lower upfront equipment costs while enabling the utility to capture and monetize federal incentives, including accelerated cost recovery under 26 U.S.C. § 168.[22]

Accordingly, SW and PECC recommend that the Commission encourage Con Edison, in consultation with the City, to integrate reflection of these updated federal ownership and leasing provisions into the Stage 2 Design Plan. Doing so will allow the Company to align its Stage 3 business-plan development with the revised federal tax framework, strengthening the financial viability of the Mount Vernon pilot, and enable both Con Edison and participating customers to fully benefit from the revised incentives.

## II. Customer Protection Plan, including Customer Engagement and the Customer Agreement

### *b. How effective is the Customer Protection Plan* (CPP) *in outlining the rights and responsibilities of the participant and the utility, during and after the five-year pilot term?*

The Residential Customer Protection Plan (RCPP) and Large Customer Protection Plan (LCPP) together establish a well-defined framework that clearly articulates the rights and responsibilities of participants and the Company throughout the five-year pilot period.[23] Guided by the City's active participation, Con Edison has placed appropriate emphasis on *affordability*, *transparency*, *and accountability*, ensuring that customers, particularly those from low-income households, are protected from cost shocks and inequitable billing outcomes.

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[21] See "Definition of Energy Property and Rules Applicable to the Energy Credit," 88 Fed. Reg. 72,560–72,575 (Nov. 22, 2023); Rev. Proc. 2001-28; 2001-1 C.B. 1156; Rev. Proc. 2001-29; 2001-1 C.B. 1160).

[22] Internal Revenue Service, *Cost Recovery for Qualified Clean Energy Facilities, Property, and Technology*, https://www.irs.gov/credits-deductions/cost-recovery-for-qualified-clean-energy-facilities-property-and-technology (accessed Oct. 25, 2025).

[23] Con Edison, *Appendix #107 – Mount Vernon 1-4 Family Residential Customer Protections* (July 10, 2025) (filed in Case 22-M-0429, *Proceeding on Motion of the Commission to Implement the Requirements of the UTENJA*) ("MV RCPP"); and Con Edison, *Appendix #108 – Mount Vernon Large Customer Protections* (July 10, 2025) (filed in Case 22-M-0429, *Proceeding on Motion of the Commission to Implement the Requirements of the UTENJA*) ("MV LCPP").

For residential participants, the RCPP's "Protected Bill" mechanism provides a predictable annual cap on total energy costs, calculated from the lowest of the prior three years of household bills and adjusted only for inflation.[24] This mechanism will help ensure that residential customers will not pay more for UTEN service than they would have under conventional systems. The plan's annual reconciliation and crediting process further ensures that any overpayment is refunded or credited toward the subsequent year, offering a continuous affordability safeguard.[25] For large and commercial participants, the "Shadow Cost" methodology used in the LCPP provides a parallel protection. Each year, Con Edison will model what the participant's energy costs would have been under conventional systems and issue a refund if actual UTEN costs exceed this modeled baseline.[26] This outcome-based approach ensures fairness and preserves incentives for energy efficiency and peak-load management. Both plans also include important guardrails prohibiting bad-faith energy use or non-cooperation with conservation measures, while establishing escalation procedures that include Department of Public Service notification and embedding clear communication requirements to maintain fairness and transparency.[27]

While these mechanisms provide strong short-term protections, neither CPP yet defines how those protections will evolve beyond the pilot period as thermal and electric billing transition away from pilot-specific subsidies. SW and PECC recommend that the Commission direct Con Edison to integrate *comparative rate studies* into the pilot's reporting requirements. This longitudinal analysis would:

1. Compare customer bills under the pilot's "Protected Bill" and "Shadow Cost" frameworks to modeled outcomes under alternative electric and thermal rate structures; and
2. Evaluate whether heat-pump-specific or seasonal electricity rate designs, such as those recently adopted by the Massachusetts Department of Public Utilities for Eversource, National Grid, and Unitil, could mitigate potential bill increases after the pilot's conclusion.[28]

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[24] MV RCPP at pp. 6–8.
[25] *Id*. at p. 11.
[26] MV LCPP at pp. 2–7.
[27] MV RCPP at p. 12.
[28] Mass Save, *Seasonal Heat Pump Rates*, https://www.masssave.com/residential/rebates-offers-services/heating-and-cooling/heat-pumps/seasonal-heat-pump-rates (last visited Oct. 24, 2025); Massachusetts Office of the Governor, *All-Electric Utility Customers Will Soon Be Eligible for Heat Pump Discount Rates* (Oct. 4, 2024), https://www.mass.gov/news/all-electric-utility-customers-will-soon-be-eligible-for-heat-pump-discount-rates.

Embedding these comparative studies within the CPP framework will provide the Commission with actionable data to guide post-pilot rate design and ensure continuity of protections once subsidies are phased out.

### *c. Describe which aspects of the Customer Protection Plan, if any, represent a 'best practice' and should be replicated.*

The City's leadership and sustained negotiation were pivotal in shaping customer protections that balance innovation with equity and community trust. Mount Vernon's dual role as project host and participant ensured that affordability, safety, and transparency were not abstract principles but operational requirements. The City's efforts ensured equitable cost allocation, transparency in rate-setting, and alignment of utility operations with local planning and permitting priorities. As described in the Stage 2 Design Filing, regular coordination between City staff and Con Edison streamlined design approvals and fostered shared accountability, establishing a replicable governance model that links municipal oversight with utility implementation to enhance public trust, cost fairness, and long-term project scalability.[29]

In addition to facilitating strong stakeholder relationships, several key aspects of both CPPs should be viewed as "best practices" and adopted across future UTEN projects:

- **Affordability and Equity Guardrails:** As described above, the RCPP and LCPP establish robust safeguards to ensure affordability and equitable treatment across customer types during the pilot period. The RCPP's "Protected Bill" mechanism, based on historical household bills rather than usage, prevents customers from being penalized for longer heating or cooling hours post-conversion, while the LCPP's "Shadow Cost" methodology ensures that large customers experience no worse financial outcome than maintaining traditional systems. Together, these complementary protections uphold cost fairness and transparency while promoting confidence in UTEN participation for all customer classes.

- **Public Education and Outreach Tools:** The inclusion of public-facing materials and engagement events, including signage, door hangers, and community workshops, will help facilitate transparent communication between Con Edison, participating property owners, and residents. Such tools prioritize shared learning and informed participation, and aid customers in understanding their UTEN rates, bill-protection mechanisms, and complaint procedures. This effort, spanning the customer enrollment and pilot operation phases, demonstrates a replicable model for stakeholder engagement and consumer confidence in future UTEN projects.[30]

[29] MV UTEN Design Plan at pp. 8–9, 17–18, & 114–115.
[30] MV RCCP at pp. 8–9 (outreach materials) and 10 (bill-protection communication practices).

- **Treatment of Renters:** A standout best practice is the plan's explicit protection against cost-shifting from landlords to tenants, ensuring that renter households are not disadvantaged by the transition to the UTEN system. The design requires that UTEN billing configurations maintain pre-existing payment responsibility. That is, if the owner previously paid for heating, they continue to do so under the UTEN; if tenants paid for both heating and cooling, that arrangement remains unchanged. This structure, coupled with bill-protection guardrails, prevents landlords from transferring new thermal or electrical costs to tenants through rent increases or added fees.[31]

Together, these best practices underscore how the City's partnership and community advocacy transformed a technical pilot into a replicable framework for equitable thermal network deployment.

***d. How effectively does the Customer Protection Plan* (CPP) *describe the strategy the utility has used or will use to educate and engage with participants to discuss the pilot project details? Include in your assessment whether the Customer Protection Plan articulates a plan to keep participants sufficiently informed as the pilot project progresses toward and through construction and into operation.***

Both the RCPP and LCPP demonstrate a well-developed commitment to participant engagement and education throughout each project stage, from pre-enrollment through post-commissioning. These are supplemented with an Appendix on Mount Vernon Rates.[32]

For residential participants, the RCPP provides ongoing educational and engagement tools, including monthly comparative bills showing pre-UTEN versus during-UTEN energy use, personalized energy-efficiency tips, and visual breakdowns of cost-protection mechanisms.[33] These measures make billing transparent and empower customers to manage their usage effectively. For larger participants, Con Edison's approach includes annual in-person or virtual review meetings with property owners and facility managers to explain cost-recovery outcomes, rebate calculations, and "Shadow Cost" protections, supported by site-specific modeling data that clarify individual financial outcomes.[34]

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[31] *Id*. at pp. 13-18.

[32] Con Edison, *Appendix #106 – Mount Vernon Rates* (July 10, 2025) (filed in Case 22-M-0429, *Proceeding on Motion of the Commission to Implement the Requirements of the UTENJA*) ("MV Rates").

[33] *Id*. at pp. 8–9 & 12–13.

[34] MV LCPP at pp. 6–8.

While these provisions offer a strong foundation for customer communication and transparency, SW and PECC recommend that the Commission encourage Con Edison to supplement the existing framework with a *graduated operational support plan* focused specifically on helping customers learn to operate and optimize their new thermal systems. Such a plan could include more frequent, hands-on assistance during the initial months of system commissioning and early operation, followed by reduced but ongoing check-ins as users gain comfort and familiarity. This would complement, rather than replace, the monthly and annual engagement tools already outlined in the CPPs, ensuring both operational and informational support are maintained.

Finally, integrating these engagement and operational support measures into a *joint communication protocol* co-managed by Con Edison and the City would reinforce municipal oversight, enhance responsiveness during system transitions, and provide a replicable model for transparent customer communication and operation support in future UTEN projects.[35]

## III. Rate Structure

### *b. Provide an assessment of the utility's proposed rate structure during the five-year pilot period and the proposed rate structure for the post-pilot period.*

As aforementioned in Section II(a), the pilot's differentiated rate structures for residential versus large/commercial participants are appropriate given distinct load profiles and billing risks.[36] However, it's worth noting that there are several nonprofit entities within the Large Customer pool participating in the pilot who may also be vulnerable to increases in their utility costs. Targeted measures – such as demand-response opportunities or expanded efficiency incentives – could help offset these pressures.[37]

The efforts to prevent cost-shifting from owners to tenants further demonstrate Con Edison's attention to high energy burdens among renters.[38] SW and PECC commend these safeguards and recommend that, along with the suggestion to include comparative rate studies in reporting requirements outlined in Section II(a), the Commission should ensure any such studies differentiate between thermal rate structures for renters versus owners. Aligning thermal and electric rate design in this way will help maintain affordability, rate stability, and fairness for all customer types. It will also promote efficient energy use while advancing the state's clean-energy and equity objectives.

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[35] MV UTEN Design Plan at pp. 114–115.
[36] MV Rates at pp. 4-6; MV LCPP at pp. 2-3
[37] MV Rates a p. 7.
[38] MV RCPP at pp. 13–15; MV Rates at p. 5; and MV UTEN Design Plan at pp. 110-117, §§ 10.3–11.2.

***c. What are the relative strengths and weaknesses of the proposed rate structures?***

**Strengths**

- **Affordability and Predictability:** The Protected Bill design provides clear, capped annual energy costs for residential customers, minimizing bill-shock risk during the pilot period**.**
- **Fairness for Large Customers:** The Shadow Cost framework ensures large participants will not pay more than under conventional systems while preserving efficiency incentives**.**
- **Tenant and Equity Protections:** Owner/tenant billing rules prevent cost-shifting and maintain pre-existing payment responsibilities, safeguarding renters from unintended cost transfers.
- **Program Integrity and Oversight:** Guardrails prohibiting bad-faith usage and requiring DPS notification strengthen transparency and participant trust.
- **Data Transparency:** The CPPs' metering and annual reconciliation requirements provide a foundation for tracking affordability and pilot outcomes

**Weaknesses**

- **Lack of Comparative Rate Studies:** The pilot does not yet include comparative analysis of UTEN thermal rates against modeled outcomes under alternative electric and thermal rate structures or heat-pump-specific or seasonal electric rates, limiting post-pilot rate design planning.
- **Post-Pilot Uncertainty:** Current protections expire after Year 5, without a defined path for continued service or cost allocation beyond the pilot period.
- **Limited Transparency for Large Customers:** The Shadow Cost methodology would benefit from a public measurement and verification protocol to standardize cost modeling.
- **Untapped Demand-Side Potential:** The rate design omits demand-response or load-flexibility incentives that could leverage UTENs' thermal storage capacity to reduce peak costs.

## IV. Cost Recovery Approach

***b. Provide an assessment of the utility's proposed cost recovery approach for the costs associated with the pilot project.***

Con Edison's Cost Recovery plan currently incorporates the following:

- Allowance to recover costs from electric customers;

- Allowance to recover costs as a surcharge, as an element of the Monthly Adjustment Clause / Power Authority of the State of New York
- Allowance to recover costs per standard ratemaking practices
- Allowance to recover all other costs – including O&M and Customer Equipment – as regulatory assets receiving rate of return of the current rate plan.[39]

Con Edison cites that these cost recovery strategies are justified, since they will support progress on achieving the state's climate goals (as outlined in the Climate Leadership and Community Protection Act (CLCPA) of 2022), and because recovery from electric customers would result in lower bill impacts compared to gas customers (due to the relatively larger size of electric customers and business).

The Commission's September 1, 2022, Order and September 14, 2023, Order make allowances for Cost Recovery via surcharges to non-TEN customers (for costs beyond those that can be recovered through rates charged to the pilot participants).[40]

Additional clarity is needed on how these costs will be shared among the cited recovery strategies. Furthermore, the Stage 2 filing does not (as of now) clearly identify whether cost recovery from electric customers pertains to the pilot customers or Con Edison's entire customer base. SW and PECC assume it to be the latter, since the Pilot Overview specifies that TENs "will meaningfully reduce peak electric system demand, thereby reducing the amount of electric system expansion required to meet the State's decarbonization goals."[41]Although this *could* be interpreted to imply that the collective benefits would justify cost recovery across Con Edison's whole customer base, we urge the Commission to request this clarification.

More specific considerations may be warranted during the Commission's assessment of Con Edison's plans for cost recovery via its electric customers and standard ratemaking practices:

- In the September 2022 Order, the Commission correctly points out that ratepayers are already under immense financial pressure when it comes to paying their utility bills, which has only grown since the enactment of UTENJA (and is forecasted to continue growing over the coming years.)
- In the September 2023 order, the Commission noted that stakeholders had expressed concerns with proposals to recover pilot costs only from electric customers. Con Edison has justified this approach as being tied to anticipated

[39] MV UTEN Design Plan at pp. 106-109, § 9.
[40] Case 22-M-0429, Order on Developing Thermal Energy Networks Pursuant to the Utility Thermal Energy Network and Jobs Act, *Proceeding on Motion of the Commission to Implement the Requirements of the UTENJA* (Sept. 15, 2022), at 16–17; 2023 Guidance Order at 42–43.
[41] MV UTEN Design Plan at p. 5.

reductions in peak electric system demand. It is important to also recognize that the project's benefits extend beyond the electric system, including avoided costs associated with future capacity expansion and leak-prone gas pipe replacements. We therefore urge Con Edison to consider whether seeking cost recovery from both electric and gas customer bases will help achieve equitable outcomes. Similar considerations have been discussed in other UTEN pilots, with the utilities determining cost recovery from both customer classes to be appropriate[42].

- Limited contingency plans were offered for Con Edison's proposal to recover capital costs via standard ratemaking practices. Should the Commission choose not to approve future rate increase requests, the Company should identify alternative funding sources and strategies to support the remaining costs. SW and PECC urge Con Edison to design the project to maximize eligibility for available state and federal tax incentives to reduce total system costs.
- The Commission might also evaluate how the removal of the largest borefield – originally expected to provide substantial thermal capacity and load balancing – may diminish the pilot's overall peak-demand reduction potential. As the extent of those reductions directly informs Con Edison's justification for cost recovery from the broader electric customer base, any design changes that materially alter projected system benefits should be reflected in a revised cost-benefit analysis. If the elimination of this borefield reduces anticipated electric system relief, it may correspondingly warrant a narrower cost-recovery allocation or a proportional adjustment to the surcharge applied to non-TEN customers. The Company should therefore clarify how these design modifications affect expected peak-demand outcomes and ratepayer benefits before finalizing recovery mechanisms.

Additional technical support may be needed for the utilities and relevant stakeholders – in this case, the City of Mount Vernon – to explore additional strategies and opportunities for cost recovery.

## V. Data Collection, Performance Metrics & Reporting

### *b. To what extent does the Filing sufficiently address the necessary data collection, performance metrics, and reporting approach to ensure transparency and facilitate learning from the pilot project?*

In general, the plan for data collection and performance metrics appears to comprehensively address several measurables that will be important in assessing the pilot's operational success, as well as its climate-related, societal, and financial impacts.

[42] Niagara Mohawk Power Corp. d/b/a National Grid, *Utility Thermal Energy Network Pilot Stage 2 Proposal for Syracuse* (July 9, 2025) (filed in Case 22-M-0429, *Proceeding on Motion of the Commission to Implement the Requirements of the UTENJA*).

Greater specificity for some of the proposed metrics could produce more illustrative and detailed findings:

- Customer Experience Surveys: Assuming that the pilot is approved to proceed, it would be beneficial to see the questions that would be included in the customer surveys. We recommend tailoring the surveys based on TEN customer type – similar to strategies Con Edison has already employed in its community outreach efforts to date. In addition to the data points proposed in the "Mount Vernon Performance Metrics and Data Points Collection Summary," the surveys should include specific questions on any perceived improvements to occupant health and comfort, ease of use, and affordability.[43]
    - These questions should also capture arrears indicators (e.g., late payment frequency or duration) as a measurable proxy for affordability and equitable benefit distribution.
    - To ensure inclusivity, participation metrics should be disaggregated by income, tenure, and DAC status where data are available.
    - In alignment with the comparative rate-study recommendation outlined above in Section II (Customer Protection Plans), the Commission should also direct Con Edison to integrate pilot data on customer bills and usage patterns into the metrics framework, allowing performance reporting to inform future thermal and electric rate design.

- Workforce and Economic Development Data:
    - We welcome the plan to measure "person-hours" by job type, to demonstrate the duration of these jobs (rather than just the number of jobs.) In addition, data should account for ***experience levels*** across job types (entry-level, intermediate, mid-level, senior, executive) to forecast workforce needs and career mobility within networked geothermal and TEN projects.
    - Metrics should also distinguish between jobs filled by existing utility or municipal staff versus new hires, to better quantify just-transition opportunities for current gas workers and new entrants into New York's clean energy labor market.
    - The Commission should also direct Con Edison to report local hiring and workforce development outcomes, including partnerships with environmental justice (EJ) organizations, MWBEs, and small-business contractors, to track inclusive economic participation.

[43] Con Edison, *Appendix #112 – Mount Vernon PSC Metrics and Data Points* (July 10, 2025) (filed in Case 22-M-0429, *Proceeding on Motion of the Commission to Implement the Requirements of the UTENJA*).

- Comparative “Business-as-Usual” Benchmarks: Where possible, it would also be helpful to continue comparisons of several key data points to “business-as-usual” / existing condition scenarios – as done with the “Consumption by end-use” forecasts in Figures 1212 and 1313 and further alluded to in the plan to assess customer experience via pre- and post-construction surveys. This will be critical in supporting a more complete analysis of the pilot’s impacts, particularly for the metrics that align with the purported benefits of TEN systems. Key metrics that may warrant a comparison with “business-as-usual” scenarios could include:
  - *Reliability*: comparisons on the number of shutoffs pre- and post-TEN install can help to inform the resiliency and dependability of TENs, comparative to traditional systems.
  - *On-site emissions*: can help to demonstrate the health and environmental benefits of TENs.
  - *Leaks of thermal transfer medium*: could be compared to the occurrence of gas leaks pre-TEN install – which will presumably be higher, given that part of the project involves addressing a leak-prone area.

Finally, while recognizing that the pilot must allow for end-of-pilot reversion to fossil-fuel energy sources, if necessary, the Commission should also ensure that the pilot’s reporting framework supports regular customer “check-ins” and guided adoption, helping participants optimize system use and understand their energy performance over time. Embedding this longitudinal engagement within the reporting process will not only improve operational outcomes but also provide a replicable model for equitable and data-driven customer experience monitoring in future TEN projects.

## VI. Equitable Electrification

### *b. Identify any additional information the Commission should consider in its assessment of whether the pilot projects facilitate a more equitable and affordable form of electrification versus individual electrification.*

Particular attention should be paid to Con Edison’s learnings on the high costs and barriers associated with retrofitting existing buildings to be heat pump- and TEN-ready. At $42.45 million, these retrofits are the single-largest contributor to projected pilot costs – consistent with findings from other TEN projects, where building retrofits can make up as much as ⅓ of total project costs.

Some takeaways and potential cost mitigation strategies for existing building retrofits have been identified:

- Where possible, it could be beneficial to package upgrades together rather than have them done on a building-by-building basis (which Con Edison may already be considering). This could help to lower costs – particularly if the upgrades are

done by the same solution provider, who could coordinate with Con Edison to complete building retrofits and heat pump installations in a shared area (i.e. multiple homes on a shared street) and window of time.

- Con Edison's findings further highlight the importance of continuing to advance state support for pre-weatherization and energy efficiency upgrades – particularly given how prominently health and safety issues are featured as barriers for facilitating customer participation. Although it's understandable why these buildings would not be the best fit for the UTENJA pilot, it will be challenging to ensure equitable access to clean energy upgrades if buildings cannot access the resources necessary to address these code violations and health & safety issues.

Maximization of customer participation from disadvantaged communities (DACs) and historically underserved populations was also highlighted in Con Edison's Stage 2 filing. The proportion of residential pilot participants who are enrolled in Con Edison's Energy Affordability Program (EAP) – currently 38% – will be an important indicator of the project's effectiveness in equitably serving the local community. SW and PECC commend Con Edison's efforts to address existing customer burdens and identify bill protection mechanisms – including efforts undertaken by its UTEN Arrears Task Force.[44]

The diverse types of buildings that make up the large customer base – including a medical center, municipal buildings, and several houses of worship – will also be essential in enhancing affordability for the residential customer pool, since it will aid in thermal demand management and greater distribution of infrastructure costs. Along with the focus on a rate design that minimizes energy burdens for residential customers (building on comments shared in our Section III response), it will be critical to ensure that these supports and considerations for low-to-moderate-income customers are maintained throughout and beyond the pilot's lifetime.

## VII. Labor and Workforce Development

### *a. Provide an assessment of the Filing's approach to labor agreements and workforce development as it relates to UTENJA.*

Con Edison's approach to labor and workforce development focused on collaborating with community-based organizations (CBO), trade groups, and vendors that commit to utilizing and developing the local workforce. Internally, Con Edison plans to engage internal stakeholders and promote the upskilling of current employees through training opportunities. Con Edison also proposes to leverage its existing partnerships and programs that engage union representatives and small businesses (i.e. the SEED Program).

[44] MV UTEN Design Plan at p. 80, §6.4.

Several aspects of Con Edison's plan touch on core considerations that should be accounted for in a comprehensive labor and workforce development plan – including CBO engagement, partnerships with unions, integration of gas utility workers (in recognition of how their skillsets overlap with TEN projects), training opportunities, and support for small businesses.

Some areas that could be strengthened or expanded upon include the following:

- More details on plans for collaborating with trade groups and community-based environmental justice and workforce development organizations would be beneficial. Specific thresholds on the number and types of organizations that Con Edison plans to engage – as well as the total number of contacts reached through relevant listservs/websites – could help to evaluate the project's impact on promoting local workforce development opportunities.
- No specific guidelines or measures were highlighted on engaging individuals and employing individuals from local communities (including Mount Vernon itself), minority and women-owned businesses (MWBEs,) and/or DACs. Additional considerations for metrics on labor and workforce development impact were highlighted in our Section V comments – particular consideration should be given to including metrics on the experience levels of UTEN jobs and apprenticeships, which can provide a more accurate picture of what employment opportunities can result from large-scale thermal projects.

## VIII. Additional comments on the Stage 2 Filings Provide other comments not covered in the sections above regarding the pilot projects collectively, individually, or in relation to each other.

### *a. Ensuring Longevity and Continuity of UTEN Service Beyond the Pilot Period*

SW and PECC urge the Commission to encourage that each UTEN pilot, including Con Edison's Mount Vernon project, prioritizes continued operation of thermal infrastructure after the pilot period ends.[45]

The Commission's July 2024 Order already recognizes the importance of continuity by requiring each utility to submit a *Pilot Project Close-Out Report* that details options for "continuing to serve customers through the UTEN as a normal course of business or transitioning customers to alternatives".[46] Building on this requirement, SW and PECC recommend that the Commission direct utilities to evaluate multiple scenarios under

[45] Case 22-M-0429, Order Adopting Initial Utility Thermal Energy Network Rules, at 2–3 (July 18, 2024).
[46] *Id*. at 25.

which continued operation of the UTEN could be feasible – including alternative ownership models – and to prioritize these pathways, where practicable, over scenarios that would revert customers to non-thermal systems. This forward-planning approach reinforces the Order's intent that pilot learnings and impact-related metrics inform enduring decarbonization pathways.

To support this goal, the Commission could require utilities to include within their *CPP* filings a draft, high-level *End-of-Pilot Transition Framework* outline that incorporates:

- Scenarios for continued operation, whether by the utility, municipality, or other third-party entity, that retain service continuity and system value;
- A community engagement plan for maintaining participant confidence and operational literacy during the post-pilot transition; and
- Comparative rate analyses using pilot data to inform post-pilot rate design and customer-protection mechanisms.

In addition, given the ownership and leasing flexibilities created under H.R. 1 (amending IRC § 50(e) and § 48), utilities should assess whether third-party or municipal entities could assume long-term ownership or management of network assets while preserving eligibility for federal tax incentives.

By planning for continuity now through operational, financial, and ownership pathways, the Commission can help ensure that UTEN pilots evolve from short-term demonstrations into lasting clean-energy networks that serve customers and communities for decades to come.

## 3. CONCLUSION AND RECOMMENDATIONS

Sustainable Westchester and the Pace Energy and Climate Center commend Con Edison and the City of Mount Vernon for their leadership in advancing New York's first utility-scale thermal network. Based on the review above, SW and PECC respectfully recommend that the Commission:

1. **Approve the Stage 2 Design Plan**, while directing Con Edison to incorporate, where feasible, the suggestions and recommendations outlined in these comments, either through updates to the final Stage 2 Design Plan or in subsequent actions under Stage 3 and later stages of project implementation.
2. **Ensure transparent cost allocation**, requiring Con Edison to clarify recovery mechanisms between electric and gas rate classes and to incorporate sensitivity analyses that reflect design changes.
3. **Maximize federal incentive alignment**, directing the utility to integrate ownership and leasing structures consistent with amended Section 48 ITC provisions under H.R. 1.

4. **Embed comparative rate studies** within the reporting framework to guide future rate design and maintain customer protections after the pilot term.
5. **Strengthen workforce and equity metrics** to capture local hiring, skill levels, MWBE participation, and just transition outcomes.
6. **Promote long-term continuity of service**, requiring each utility to develop an End-of-Pilot Transition Framework that prioritizes maintaining UTEN operations and explores municipal or cooperative ownership pathways.

Taken together, these measures will ensure that the Mount Vernon pilot delivers lasting economic, environmental, and social benefits, transforming a one-time demonstration into a durable model for equitable, community-based decarbonization across New York State.

Respectfully,

Lauren Kroell

Senior Program Manager, Building Decarbonization
Sustainable Westchester

&

Emma Lagle
Energy Policy Advisor & Regional Affairs Manager
Pace Energy and Climate Center