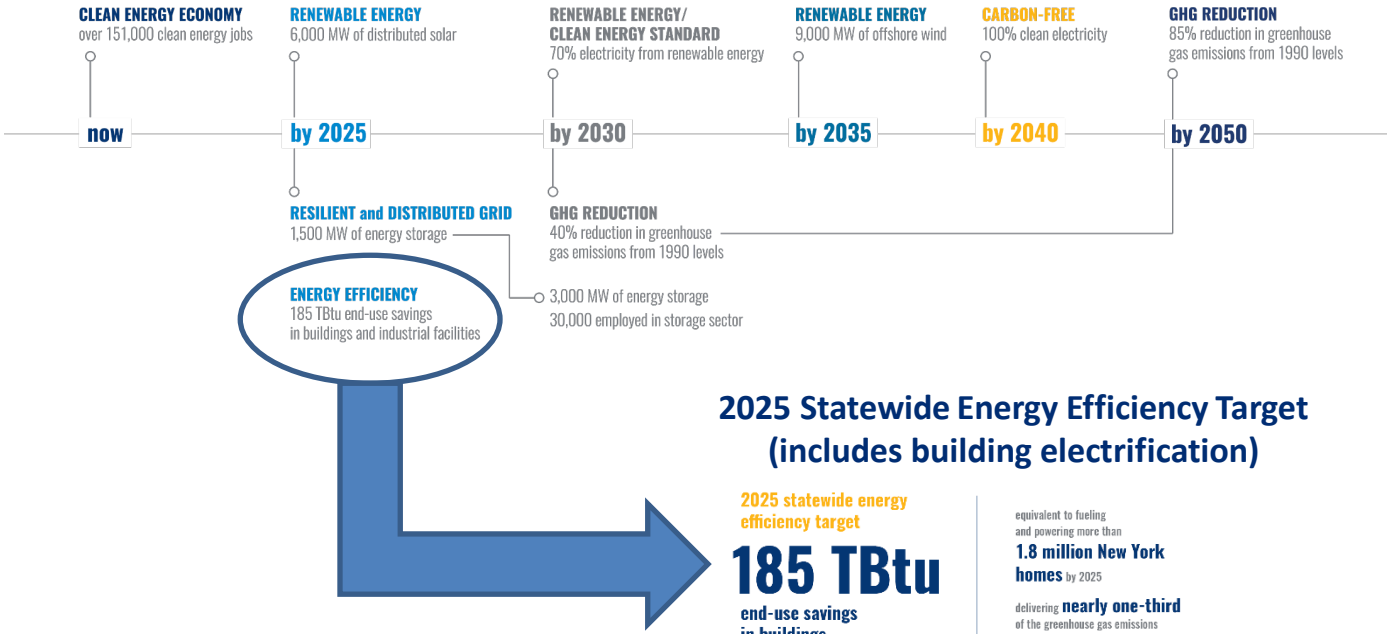
NEW YORK STATE OF OPPORTUNITY. | Department of Public Service

Implementation of New York's Utility Thermal Energy Network (UTEN) and Jobs Act (Case 22-M-0429)

Illinois Commerce Commission Workshop
December 13, 2023

New York State Policy Construct

Climate Leadership and Community Protection Act (CLCPA)



35% - 40% of the benefits of state CLCPA investment must flow to disadvantaged communities

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Utility Thermal Energy Network & Jobs Act

- Signed into law July 2022
- Amended several provisions of Public Service Law including, defining:
  - Thermal Energy & Thermal Energy Network
- Required seven largest utilities to proposed between 1 - 5 UTEN pilot projects, within 3 months, with at least one located in a Disadvantaged Communities
- Required NYS Public Service Commission to:
  - Initiate a proceeding within 3 months
  - Determine whether it is in the public interest to approve or modify utility pilot projects within 6 months
  - Promulgate rules/regulations within 2 years
- Requires utilities to establish labor agreement to focus on transitioning utility workers for the operation of UTENs

Timeline

- **July 2022 – Utility Thermal Energy Network and Jobs Act Signed into law**
- September 2022 - Initiating Order
- October 2022 – Utility Initial Filings
- December 2022 – Technical Conference Held
- January 2023 – Utility Pilot Project Proposal Filings
- April 2023 – Initial Comments Submitted
- May, June, August 2023 – Supplemental Filings, Pilot Project Withdrawals and Additional Comments
- **September 2023 – Staff UTEN Report and Guidance Order**
- October/December 2023 – Terms & Definitions Technical Conference/Filing
- By December 2023 – Utility Final Pilot Project Filings
- By April 2024 – Technical Conference on UTEN Performance Metrics
- December 2023 – tbd – UTEN Pilots move through stage gating process

Summary of Proposals

- Prior to the Guidance Order, the seven utilities had proposed 14 pilot projects:
  - Estimated total costs of ~$360-$435 million
  - Estimated 1-2-year timeframes from approval to construction beginning
  - 10 are in Disadvantaged Communities
- Two of the utilities subsequently withdrew their filings siting feasibility study findings or uncertainties with the viability of the project. New proposals are slated for December 2023.

Summary of Proposals (continued)

- Customers providing thermal energy to the system
  - Community youth center, data center, large office building, grocery store, etc.
- Customers receiving thermal energy from system
  - Municipal buildings, existing and new construction, small and large residential, commercial
- Some targeting areas with leak-prone gas pipe
- Diverse thermal sources
  - Shallow closed loop boreholes
  - Municipal-owned bore field
  - Wastewater treatment plant
  - Lake/river
  - Surface water heat exchanger

DPS Staff Observations

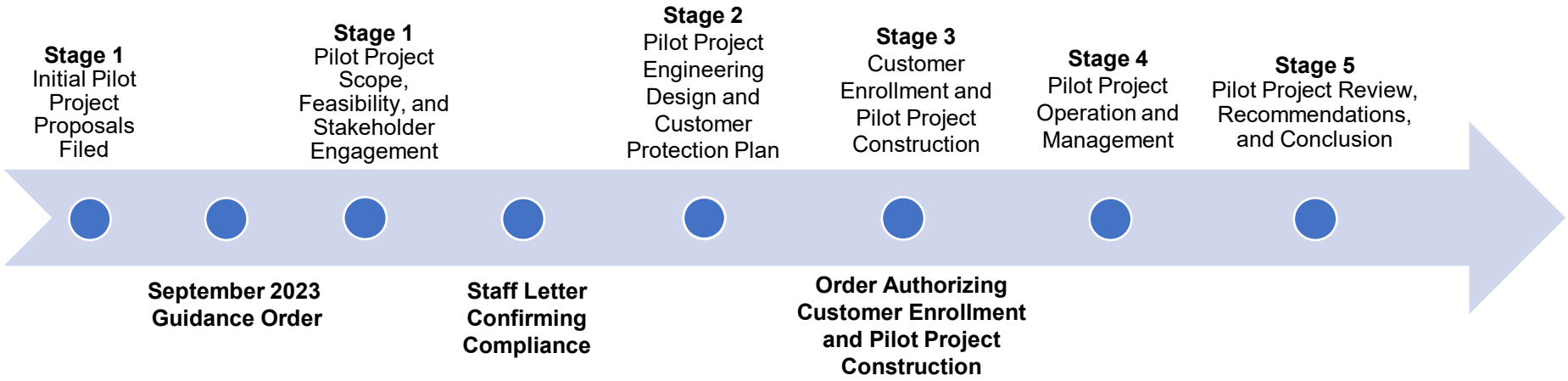
- No pilot project proposal included enough detail for Commission authorization
- Different types of UTEN designs
  - Best fit for varying types of customers
  - Ambient versus higher temperature
  - Varying temperatures impact needed equipment for utility/customer
- The supply and demand of thermal energy from diverse building loads of the connected customers and thermal sources must be considered to balance a system overall.
- The dynamic nature of the systems create complexities and lead to a balancing act of enrolling customers and developing projects.
- TENs across the world commonly use fossil fuel combustion for part of thermal heat input, often driven by economics. Creating potential for tension b/w economics of the system and climate goals.

Guidance Order Established a Phased Implementation Approach

Pilot Project Stages

1. Pilot Project Scope, Feasibility, and Stakeholder Engagement
2. Pilot Project Engineering Design and Customer Protection Plan
3. Customer Enrollment and Pilot Project Construction
4. Pilot Project Operation and Management
5. Pilot Project Review, Recommendations, and Conclusion

Pilot Project Stages and Timeline



All pilot project proposals are currently in Stage 1.

- Initial Pilot Project Proposals filed on January 9, 2023.
- Guidance Order provides clarifications, establishes stage-gate approach, and identifies additional information needed to advance projects to next stage.
- **Utilities file Final UTEN Pilot Project Proposals by December 15, 2023**.

Individual pilot project decisions will be provided beginning at Stage 2.

- Staff issues letter confirming compliance with Guidance Order and advances project(s) to Stage 2 or notes deficiencies to be addressed.
- **Utilities file Final Engineering Design and Customer Protection Plans for each pilot project within 9 months of Staff letter.**

Advancement of Pilot Project to Stage 3 through project-specific Commission Order(s).

- **Utilities file Final UTEN Pilot Project Engineering Design and Customer Protection Plans. Filings will be issued for public comment.**
- Order will finalize pilot project operational requirements, cost recovery, CPPs, performance monitoring and reporting structure.
- Pilot project will be operational for a minimum of 5 years.

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Further Guidance Provided in the Following Areas:

- Clarification on UTEN Design Options
- Diversity of Pilot Projects
- Disadvantaged Communities
- Technical, Economic and Operational Aspects
  - UTEN Optimization and Balancing
  - Thermal Energy Resources
  - Safety, Reliability, and Resiliency
  - On-site Energy Efficiency Upgrades
  - Comparative Analysis of UTEN Systems vs Individual Electrification
- Customer Protection Plans
- Labor Requirements
- Order also required (1) Technical Conferences on Terms & Definitions and Performance Metrics and (2) Utility Monthly Performance and Expenditure Reports

Considerations

- Be ambitious but realistic on the time necessary to develop/implement projects.
  - Utilize Requests for Information (RFIs) or Feasibility Studies to aid in the identification and development of projects.
- Clarify up front what you want to test thereby giving focus to the pilots and assessment of proposals.
- Communicate early the expectation that data from pilots will be publicly accessible.
- Strike a balance between the determination of the “public interest” with ratepayer bill impacts.
- Recognize overseeing a UTEN effort will cross all business units of a regulatory agency and must be resourced accordingly. Access need/potential to tap outside expertise.

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