NEW YORK STATE | Department of Public Service

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March 21, 2024

VIA ELECTRONIC FILING

Hon. Michelle L. Phillips
Secretary to the Commission
New York State Public Service Commission
Agency Building 3
Albany NY 12223-1350
E-mail: secretary@dps.ny.gov

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

Matter 24-00515 - In the Matter of Utility Thermal Energy Network Performance Metrics.

Dear Secretary Phillips:

Enclosed please find the presentation provided at the Utility Thermal Energy Network (UTEN) Performance Metrics Technical Conference held, in-person and via webinar, on March 19, 2024. The Technical Conference enabled discussion about the type of Performance Metrics that could be implemented for the UTEN pilot projects. The metrics will allow for robust data collection to track the technical, customer, safety and societal impacts and operations of the pilot projects. Additional Performance Metrics Technical Conferences are scheduled for April 25 and May 7, 2024, at 1pm on each day. Please look for forthcoming notices to announce these Conferences with details for participants. Interested parties are invited to submit comments in response to the Technical Conference in Matter Number 24-00515.

Sincerely,
/s/ *Jordan A. Lesser*
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(Enc.)

NEW YORK STATE OF OPPORTUNITY. | Department of Public Service

Utility Thermal Energy Network (UTEN) Performance Metric Technical Conference

Case 22-M-0429/ Matter Number 24-00515

March 19, 2024

Meeting Procedures

Before beginning, a few reminders to ensure a smooth discussion and engagement of Virtual Participants:

- Virtual participants will be muted upon entry.
- Please use the hand raise function if you'd like to participate in discussion. The meeting host will unmute and call on participants individually so that you can speak.
- Please be brief in your comments to allow for as many participants to speak as possible.
- Comments may also be entered in writing through the Chat feature.

Topics

- Welcome/Introduction
- Performance Metrics Overview
  - Guidance Order (September 15, 2023)
- Anticipated Process and Deliverable
  - New Matter Number - 24-00515
  - Three Technical conferences – discussion/scoping, two focused area conferences
- Filing
- Next Steps

Agenda

- 1:00 - 1:20 – Opening, Performance Metrics overview
- 1:20 - 1:50 – Financial
- 1:50 - 2:20 – Customer/Societal
- 2:20 - 2:30 – Break
- 2:30 - 3:00 – Safety/Reliability
- 3:00 - 3:30 – Technical
- 3:30 - 4:00 – Next Steps/Closing

Guidance Order Performance Metrics

"Identifying standardized metrics is of paramount importance as it will provide the necessary data to assist the Commission in adopting rules to promote the use of thermal energy networks and to ensure that we maximize learnings from the ratepayer investments in these pilot projects." (Guidance Order, p. 48)

"Accordingly, [the Commission] direct[s] Staff to convene one or more technical conferences regarding performance metrics. The first technical conference shall be held before March 31, 2024. The technical conferences will provide an opportunity for Staff, the Utilities, and interested stakeholders to discuss data needs and the appropriate metrics to meet these needs." (Guidance Order, p. 48)

Guidance Order Performance Metrics

"The Commission advises that participants in these technical conferences should recognize that the metrics that may be appropriate to establish during the pilot phase may be more robust than the metrics that may continue with full scale UTEN implementation."

"Participants in the technical conferences should also consider how to balance the need for this level of information with the administrative or system related costs associated with requiring the various metrics. Following the final technical conference, Staff will make a filing documenting the outcome of the technical conferences, including agreed upon performance metrics for each category that the Utilities will track and report for each pilot project. The filing will also summarize metrics proposed, but that were not ultimately agreed upon, if any." (Guidance Order, Page 48-49)

Purpose of Performance Metrics

- What are we trying to learn from the Pilots?
- Why?
- How will the data be used effectively?
- Metrics should be applied consistently across Pilots, where possible, recognizing potential for pilot-specific metrics.

Financial

"**Financial Metrics** will measure the cost effectiveness of the pilot projects and include individual metrics such as, capital expenses and operating expenses in total and on a per unit basis. This will provide meaningful information necessary to develop appropriate rate structures as well as to compare costs for the provision of services between the UTEN and legacy fuels and/or other forms of building electrification." (Guidance Order, p. 47)

Financial

- What capital expenditures associated with initial development of the UTEN should be tracked?
  - Utility Owned Equipment – Should expenditures be tracked separately from traditional gas/electric expenditures?
  - Customer Owned Equipment – What level of granularity should customer-sided expenses be tracked?
  - Should capital improvements/reinvestments necessary to continue operation beyond the pilot period be considered?

Financial

- What operational expenses associated with the UTEN operation should be tracked?
  - Should operational expenses outside of the pilot period be considered?

- How do UTEN operation expenses compare to BAU and other forms of electrification?
  - Cost per UTEN customer; Cost per BTU?

- How should operational expenses be tracked?
  - What categories and on what basis?
  - Incremental or total?

Customer/Societal

"**Customer and Societal Metrics** will measure participating customers' experience and satisfaction as well as overall societal benefits of the UTEN and include individual metrics such as GHG emission reductions and customer satisfaction. Customer satisfaction data points will serve as key indicators of the Utilities' success in implementing their pilot projects. This data will help the Utilities, Staff, and the Commission assess the performance of the UTEN customer-facing processes, to gain a better understanding of customers' needs and concerns and create an opportunity for improvement." (Guidance Order, p. 47-48)

Customer

- Customer satisfaction
  - Percentage of customer satisfaction related to UTEN customer experience (i.e. recruitment, service reliability, billing, complaint resolution, maintenance costs, if applicable, and customer communications).
  - Common questions asked for all pilots?
- Customer complaints
  - Number of complaints received that are associated with UTEN specific customer issues.
  - Conducts Root Cause analysis.
- Customer awareness/education
  - What percentage of eligible population is aware of pilot?
  - How informed are participants of pilot details, benefits and potential impacts. Rights and responsibilities under pilot agreement.
  - How informed are participants about billing changes?
- Billing
  - Percentage of adjusted, estimated and delayed customer bills associated with UTEN billing errors issued.

Societal

- What are the overall emission reductions (annual and lifetime) and cost to achieve associated with the UTEN pilot?
- What are other societal benefits associated with the UTEN pilot?
- What type and level of skilled trades work is required to develop, construct and operate the UTEN pilot(s)?

Safety & Reliability

"**Safety and Reliability Metrics** will measure indicators such as system leaks and customer outages. Collection of this data will inform the development of safety and reliability standards and help identify any necessary improvements in the design and operation of UTENs." (Guidance Order, p. 48)

Safety & Reliability

- What existing gas/electric metrics can be used to compare operations across Pilots?
  - What are unique metrics that need to be developed?
  - How do different designs impact safety & reliability?
- Abnormal and unexpected operating conditions
- Outages/Curtailments
  - Frequency & Duration
- Leaks
  - Number & Cause
  - Impact – Public & Environmental
- Equipment failure – UTEN and customer
- Damages – excavation (cause) or other
- Emergencies

Technical

"**Technical metrics** will measure system performance and include individual metrics such as, hydronic temperatures and thermal capacity and output. Given that the pilot projects are testing the UTEN's ability to serve varying types of customers, the suite of technical metrics will track the network performance and quality of energy produced and shared to measure aspects of UTENs that perform better and under different operational and environmental demands." (Guidance Order, p. 47)

Technical

- What metrics should be tracked to compare the relative strengths and weaknesses of different system configurations (e.g., 1-pipe, 2-pipe, 4-pipe, ambient vs non-ambient)?
- What are the load profiles (at design stage) and actual load (during operation) for the collective buildings being served?
- What is the thermal energy capacity and output of each thermal energy resource, and in total?
- What is the thermal energy being delivered to and from customer site?
- What is the network's system efficiency during normal and peak conditions?

Next Steps

- Slides will be posted to Case 22-M-0429 & Matter Number 24-00515
- April 25, 2024 - Financial/Customer/Societal Tech Conference
- May 7, 2024 - Technical/Safety/Reliability Tech Conference
- Additional input following today's conference may be filed in Matter Number 24-00515