O&R Utility Thermal Energy Network Pilots Request for Information (RFI)

Question and Answers

The following is a list of questions and answers raised during the January 4, 2023 Webinar on O&R's Utility Thermal Energy Network (UTEN) Pilots Request for Information.

Can the UTEN pilot be implemented for single family residential buildings?

Yes, the UTEN pilot will be considered for all building types including single-family residential buildings.

Who is responsible for the purchase, installation, and maintenance of the ground source heat pumps (GSHP) and heating/cooling equipment that will serve the buildings? Will there be any incentives to offset the installation and/or retrofit costs?

The developer/customer will be responsible for the purchase, installation, and maintenance of the Ground Source Heat Pump ("GSHP") and other HVAC equipment needed to serve the building. It is anticipated that O&R will be able to provide retrofit design support and incentives to offset some of the costs. The amount of the incentives is subject to the New York Public Service Commission ("Commission") approval.

There are also other programs available that potentially could be used to offset the purchase and installation costs of the customer's equipment (e.g., NY Clean Heat and the Inflation Reduction Act)

Is O&R looking to recoup any costs for the actual installation of the shared UTEN infrastructure?

O&R will be charging the customers a fee to connect and use the shared UTEN. We anticipate testing two business models with one charging a flat fee per month based on the customer's thermal design capacity, and one charging a consumption fee based on the thermal energy delivered (for heating) or expelled (for cooling) by the customer. The actual rates have not been determined yet and will be subject to Commission approval. It is anticipated that the customer will realize an operational cost saving by utilizing the efficient GSHP heating/cooling system.

Would O&R be able to visit potential sites and evaluate buildings to determine what equipment and other work will be needed to retrofit existing buildings with GSHP systems? Could this be done before the RFI deadline?

This level of detail in not needed for the response to the RFI. At this time, O&R is looking for respondents to provide as much information about potential sites as possible, without expending a lot of resources. Once a site is selected and a Memorandum of Understanding ("MOU") is executed with the appropriate parties, it is anticipated that O&R may evaluate retrofit requirements and heating/cooling requirement for existing buildings in partnership with the appropriate parties.

If we have a potential project in mind, do we need to solicit support from nearby buildings that we have no control of to be included in the UTEN?

We understand that customers will want to know the benefits of converting their HVAC systems which cannot yet be defined. O&R plans to market to the nearby buildings to optimize the utilization of the installed UTEN. Therefore, it is not required to have letters of support from customers located in nearby buildings. However, it would be beneficial to get as many customers located in nearby buildings committed to the UTEN as soon as possible. Additionally, nothing is binding until O&R enters into a customer agreement with any potential customer.

The anticipated life expectancy of a GSHP is 25 years. What will happen at to the UTEN service at the end of its anticipated lifespan?

Similar to conventional HVAC equipment, customers will be required to maintain their GSHP and replace it when necessary to utilize the thermal energy from the UTEN.

The life expectancy of the UTEN infrastructure (boreholes and piping) is much longer (up to 80 years) and will be available to provide the thermal energy to the UTEN customers for the foreseeable future.

What happens if O&R decides to discontinue the operation of the UTEN network? What will happen to the customers?

O&R plans to operate the UTEN through the end of the pilot period and, very likely, even after the pilot phase. In fact, we anticipate that UTENs may become a new business for O&R.

However, in the unlikely event that O&R decides to step away from the installed UTEN, we would either find a suitable entity to take over the system or provide an alternative heating/cooling system to the pilot participants. The details will be contained in the customer agreement.

Is there a limitation on the length of that ambient loop piping that you would install (i.e., how much geography into the community can we pick up)?

The scope is limited by the amount of funding the Commission will approve. The larger the size of the system, the more funding will be needed. At this time, we do not want to limit ourselves. If you have as project in mind, you can respond to the RFI and we can evaluate it accordingly.

With a few committed customers and the potential for more nearby residential customer, how would you design the UTEN system and how would you convince the residential customers to connect?

Many components of the UTEN (e.g., bore holes) can be installed in phases to accommodate additional heating/cooling loads as new customers interconnect to the system. For those components that would be costly to expand, O&R will future-proof (i.e., up-sized) to accommodate the surrounding facilities to the UTEN.

As previously mentioned, O&R will also be marketing to the surrounding customers to see if there's additional interest for customers to connect into the UTEN.