

**CON EDISON'S RESPONSE TO QUESTIONS FROM CITY COUNCIL ONON THE  
MOUNT VERNON UTEN PILOT PROJECT**

October 2, 2024

**Q: Why was the City of Mount Vernon selected for this project?**

A: Beginning in 2020, Con Edison began reviewing potential locations for future district geothermal pilot projects. In that review, the Company assessed 19 different sites which contained sections of aging gas pipe that is aging and/or has a history of leaks, which could be retired with a successful geothermal project. This included the City of Mount Vernon, which became a top contender for a future pilot project due to the diversity of buildings, availability of green space for geothermal bore fields, and potential future expansion of the network.

In July 2022, the NYS Public Service Commission (PSC) consistent with the Utility Thermal Energy and Jobs Act (UTENJA) directed the seven largest, investor-owned utilities to submit as many as five proposed pilot Utility Thermal Energy Network projects, with at least one such pilot project per utility service territory located in a Disadvantaged Community. In January 2023, the Company proposed to develop three discrete projects to maximize learning opportunities, including 1) high-rise commercial and industrial buildings, 2) large residential buildings in a dense urban area, and 3) smaller buildings in suburban areas. Based on existing information from the previous study and additional analysis, Con Edison determined Mount Vernon as the best location to meet the Company's third project type.

The Mount Vernon Project directly serves a Disadvantaged Community, with 82 percent of residents considered low-to-moderate income or earning less than 80 percent of the Area Median Income. Con Edison is committed to enhancing collaboration with our customers and stakeholders to improve the quality of life in the neighborhoods we serve and live in and are working to bring the benefits of this pilot to the Mount Vernon community. Customers that choose to participate will receive:

- 1) **Free upgrades to their properties:** The Pilot will provide new geothermal HVAC systems, valued at up to \$75,000 to project participants and energy efficiency upgrades, such as air sealing and insulation, **at no cost to the customer.**
- 2) **Equal or lower energy bills:** The Pilot's bill protections will keep customers from paying more for heating, cooling, and/or domestic hot water (DHW) on the UTEN than they would have if the buildings continued using existing equipment.

**Environmental Impacts**

**Q: Will the geothermal project impact the city's water supply?**

A: No, the geothermal project will not have a direct impact on the city's water supply. The proposed system will not interact with groundwater resources nor with the Kensico Reservoir

which supplies Mount Vernon's drinking water supply via New York City's Catskill / Delaware reservoir system.<sup>1</sup>

**Q: Could the project have a negative impact on the atmosphere?**

A: Geothermal energy is a renewable resource that does not produce greenhouse gas emissions. In fact, it will help reduce carbon emissions by displacing fossil fuel-based heating and cooling systems. During the construction activities, when concrete is jackhammered and soil is excavated, dust can be generated. Con Edison's current excavation procedures require the concrete to be wet in order to prevent dust from rising and becoming airborne. We will utilize all existing Con Edison construction and engineering practices to protect our employees and the residents in the area. Additionally, the contractor can create a Community Air Monitoring Plan (CAMP) through NYSDEC guidance to further protect the public from particulates downwind of the job site.

**Sustainability**

**Q: How will the test site be maintained in the long term?**

A: The test borehole site will be restored back to its existing conditions, except for a temporary manhole cover which will be installed over the borehole. The purpose of this manhole cover is to allow easy access to the test borehole during the design stage of the project. Once the project is approved for construction, the manhole cover will be permanently removed, and the remainder of the borehole will be restored and backfilled. In the event the pilot project is not approved for construction, the entire area will be fully restored to the existing conditions.

**Q: If the project is approved by the Public Service Commission (PSC), what will be involved in the long-term maintenance of the entire project?**

A: The long-term maintenance of the entire project will require similar efforts as our existing electric, gas, and steam distribution systems. This includes real-time 24/7 monitoring of pressures and other safety controls at our control centers as well as regular inspection and maintenance of utility infrastructure (i.e. pipes, valves, etc.). Some utility thermal energy network specific items include monitoring the level of the propylene glycol solution which circulates through the closed system and the maintenance of customer heat pumps (only during the pilot period). The company will have a dedicated trained and qualified workforce to respond to customer outage calls and emergency scenarios, who will be stationed at the new proposed building within the project area.

**Earthquake Prevention**

**Q: How will the project be designed to prevent earthquakes?**

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<sup>1</sup> See, [chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.cmvny.com/ArchiveCenter/ViewFile/Item/85](https://www.cmvny.com/ArchiveCenter/ViewFile/Item/85)

A: The project will be designed to meet all applicable building codes and seismic standards. This includes using appropriate materials and construction techniques to ensure the system's stability in the event of an earthquake.

**Q: Will the project itself pose any risk of triggering earthquakes?**

A: There is no link between geothermal projects triggering earthquakes. The process of drilling boreholes and circulating fluid through boreholes is not known to cause seismic activity.

According to the US Geological Survey (USGS), most induced earthquakes are caused by disposal of waste fluids and wastewater. Geothermal drilling excavates soil and rock through a 6-inch diameter hole, and an HDPE closed loop is inserted. The void between the earth and HDPE pipe is filled with commercially purchased grout or same material that was excavated. Water is not dumped into the borehole, water only circulates through the closed loop HDPE pipe, it does not come into contact with the soil. No fluid is disposed into the excavated borehole, it is backfilled so that the HDPE pipe is not insulated by the air around it. Contact between the pipe and the earth is required for efficient heating/cooling to be provided to the customer.

**Human and Pet Health Impacts**

**Q: Are there any potential health risks associated with the project?**

A: The project is not expected to pose any significant health risks to humans or pets. There will be no emissions of harmful gases or pollutants.

Con Edison will be using water as the solution that runs through the test borehole portion of the project. During the pilot period, Con Edison will use a propylene glycol solution in the geothermal system, which is non-toxic and biodegradable.<sup>2</sup> In the event of leak inside a home, the customer will report it to Con Edison, as they would a gas leak. A UTEN crew will respond as quickly as they would to a gas leak call. While it is not recommended to ingest propylene glycol, it is a substance that is used in medication and cosmetics.

**Q: Could the project affect the quality of indoor air?**

A: The geothermal system would improve indoor air quality by reducing the need for fossil fuel-based heating and cooling systems that can release pollutants.

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<sup>2</sup> For more information regarding the safety of propylene glycol solution, please visit the United States CDC website: <https://wwwn.cdc.gov/TSP/ToxFAQs/ToxFAQsDetails.aspx?faqid=1121&toxid=240> Also, see the United States EPA propylene glycol fact sheet: [ny\\_hh\\_602\\_w\\_06002004.pdf\(epa.gov\)](https://www.epa.gov/epaospp/propylene-glycol-fact-sheet)