

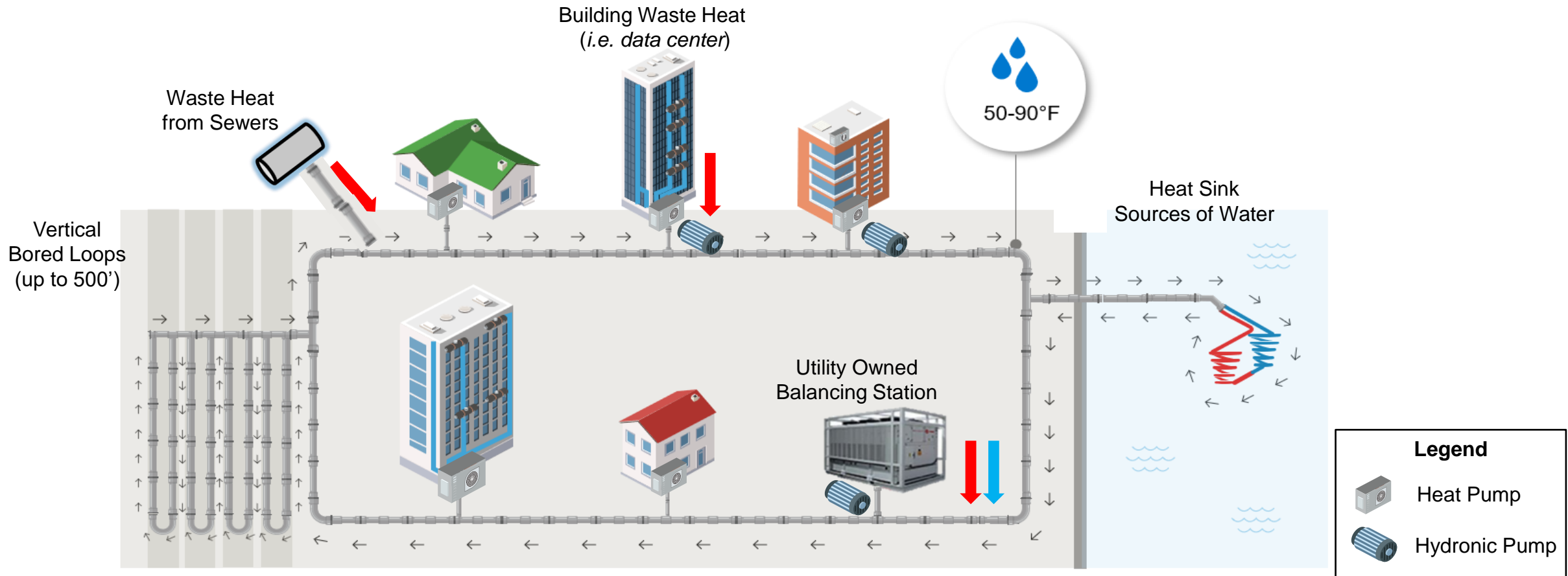
Con Edison

Utility Thermal Energy Networks

Decarb NY – Sept 2023

Thermal Energy Network Defined

Thermal Energy Network Definition: Transfer of heat energy between buildings through an ambient temperature water-based pipe system owned and operated by Con Edison, as a non-fossil fuel energy source for heating and cooling



Chelsea Project

SUMMARY

Location:	Manhattan, in a disadvantaged community	Technology:	Data center heat recovery
Number of Buildings:	4 buildings (309,000 SF)	Participating Buildings:	Fulton Houses, 85 10 th Ave
Building Owners:	NYCHA, Related Companies, Essence Development, Vornado Realty Trust		

HIGHLIGHTS

- Data center providing waste heat to multifamily buildings
- Provides heating, cooling, and domestic hot water
- Located in a disadvantaged community and serves low-income NYCHA residents
- Integrates energy efficiency upgrades

SITE PLAN



SCALABILITY

- Multiple large waste heat providers in the adjacent area
- Seven additional buildings located at Fulton Houses

Mount Vernon Project

SUMMARY

Location:	Westchester, in a disadvantaged community	Technology:	Boreholes
Number of Buildings:	Up to 76 buildings (~400,000 SF)	Participating Buildings:	1-3 family homes, Ebony Gardens, Fire Station, religious buildings, Neighborhood Health Center, Doles Recreation Center
Building Owners:	Related, City of Mount Vernon, individual owners	Engineers:	CDM Smith, ZBF Geothermal

HIGHLIGHTS

- Borehole fields to provide geothermal energy
- Tests small residential customers acquisition
- UTEN balancing station
- Potential to retire 500 feet of leak-prone gas pipe

SITE PLAN



SCALABILITY

- Project is near similar homes and buildings that can be added to an expanded network in the future
- Only 2,000 ft from the Endurant Mount Vernon project proposed as a feasibility study to start

Rockefeller Center Project

SUMMARY

Location:	Manhattan	Technology:	Various waste heat
Number of Buildings:	3 buildings (3,700,000 SF)	Participating Buildings:	600 5 th Ave, 1230 6 th Ave, 1221 Avenue of the Americas, 30 Rockefeller Plaza Central Plant
Building Owners:	Tishman Speyer, Rockefeller Group	Engineers:	AKF Engineering, Ecosystem

HIGHLIGHTS

- Three high-rise buildings and central plant
- Steam condensate, building waste heat, ice storage, and steam energy all used to balance UTEN system across multiple customers
- Ability to repurpose building equipment such as ice chillers and condensate recovery systems
- Serves millions of visitors to the site each year

SITE PLAN



SCALABILITY

- Expansion to several nearby buildings possible
- Design could be replicated throughout Manhattan

Feasibility Studies

Endurant Sewer Heat Recovery Project in Downtown Mount Vernon, NY

- Sewer heat recovery technology
- Spans multiple municipal buildings in a disadvantaged community
- Could scale project to connect the network with the proposed Mount Vernon UTEN project



SUNY Purchase Campus Project in Purchase, NY

- Large district network using boreholes and waste heat recovery
- Includes SUNY Purchase campus administrative and residential buildings, and potentially Westchester County Airport and Pepsi Co offices

