

**Rockefeller Center
Category A Feasibility Study
NYSERDA PON 4614**

New York County

Technical Lead: AKF Engineers

Anticipated completion of
study/availability of final
report: March 2022



V1 6/2021

The Site & Beneficiaries

Rockefeller Center is an existing commercial complex in midtown Manhattan with 10 multi-tenant commercial office buildings. The buildings currently receive steam from the Con Edison District Steam System. Rockefeller Center utilizes a central plant to provide chilled water to each building, interconnected with two satellite chilled water plants and two thermal storage plants. A subset of two buildings, collectively over 1.5-million square feet, will be analyzed to explore the applicability of district-style heat pumps. The study will explore conceptual community heat pump strategies utilizing a district-style chilled water system with heat recovery in combination with retrofitted steam-to-hot water systems, utilizing Con Ed steam as a secondary heating source.

Potential Thermal Resources

The primary opportunity anticipated will leverage heat recovery heat pumps to provide heating and cooling.

Potential Configuration

Locate heat pumps within the complex's central plant and utilize both new and existing distribution services to deliver chilled water and hot water to the sample buildings included in the study. Existing secondary water service loops will be utilized as well as distributed services currently reliant on low pressure steam. Benefits of this configuration include: integrating with existing thermal infrastructure and using the heat pumps as the primary source (reserving the fossil fuel systems as supplement to meet extreme peaks or for systemwide redundancy for resilience); focusing on the location where electric infrastructure upgrades are needed to meet the expanded electrification demand for the Central Plant (as opposed to at the sample buildings) to minimize disruption to mission-focused activities during construction; and cost containment.