

Thermal Energy Network



Decarbonization Funding Request: **\$37.2 million**

The University at Albany requests **\$37.2 million** for its **design-ready** Thermal Energy Network (TEN), which will showcase New York/SUNY as **national models for climate action**.

This phase of our comprehensive decarbonization roadmap includes the design and construction of a 600-ton Heat Recovery Chiller, a Heat Exchanger, 1,860 feet of distribution pipe and electrical upgrades. It will enable UAlbany to shut down its gas/oil heating plant during the summer to provide electric heating and cooling to more than 60 buildings, **reducing campus CO2 emissions by 6 percent**.

An optional additional \$12 million investment (for a total of \$49.2 million) would allow UAlbany to connect the TEN to a newly renovated and fully electric Physical Education Building, cutting campus carbon emissions by an additional 7 percent.



Benefits: A design-ready project with real climate impact

- **Significant emissions reductions:** Cutting 1,140 metric tons of CO2 equivalent
- **Cutting fossil fuel dependency:** 6% annual reduction in fossil fuel use
- **Cleaner air** thanks to reduced on-campus fossil fuel burning
- **Jobs & economic impact:** \$20M in estimated construction labor
- **National model for climate leadership:** A practical path to large-scale electrification showcasing New York/SUNY's leadership on climate solutions



Opportunity: Why our project is ready to go

- **Completed decarbonization roadmap:** A thoughtful, cost-effective and phased campuswide decarbonization plan serving 60-plus buildings is already in place
- **Aligned with existing campus capital planning** through our Facilities Master Plan
- **Builds on prior decarbonization investments** of \$30M for electric chillers and related building infrastructure upgrades
- **UAlbany's demonstrated success** operating 500,000 s.f. of fully electric buildings and **recognized leadership** within SUNY on Thermal Energy Networks



A comprehensive decarbonization roadmap

Our **\$37.2 million** funding request for Phase 1 of UAlbany's comprehensive decarbonization roadmap would establish a new, electrified heating and cooling plant in existing space inside the University's Science Library. This phase includes:

- A 600-ton Heat Recovery Chiller
- A Heat Exchanger to convert high-temperature hot water (HTHW) to low-temperature hot water (LTHW)
- +/-1,860 feet of new pipe to connect the existing HTHW system to the Heat Exchanger
- **Optional connection** (+\$12M) of LTHW system to the newly renovated P.E. Building

Phase 1: Current – 2030

- ✓ Electric chillers
- ✓ Modifications to Domestic Hot Water (DHW) and steam systems in (39) buildings

CURRENT ASK

- 600-ton Heat Recovery Chiller (HRC)
- High Temp Hot Water (HTHW) to Low Temp Hot Water (LTHW) Heat Exchanger (HX)
- ~1,860' of piping to connect HTHW network to new HX
- Electrical upgrades
- LTHW connection to PE (need additional \$12 Million)

Phase 2: 2031-2035

- Central heat pump plant in HTEC basement
- Ground Source and Air Source Heat pumps
- Borefield Thermal Energy Storage
- Expand LTHW network

Phase 3: 2036-2040

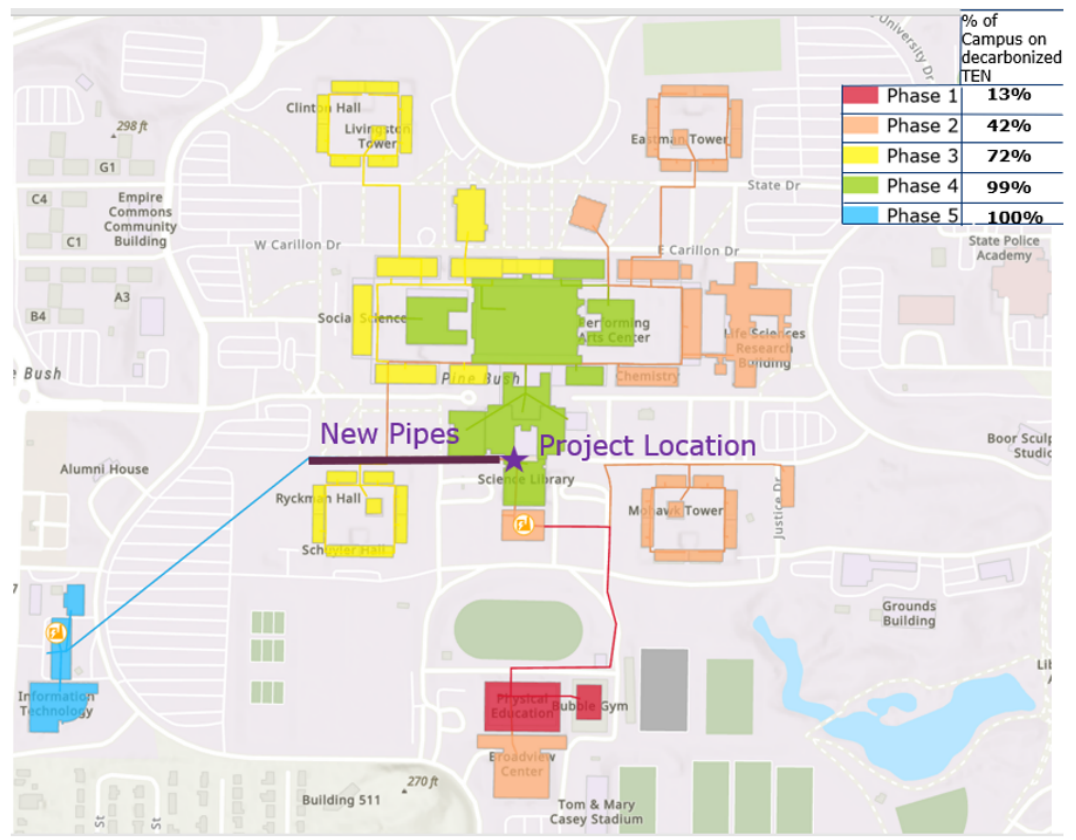
- Expand LTHW network
- Expand heat pump capacity

Phase 4: 2041-2045

- Expand LTHW network
- Expand heat pump capacity

Phase 5: 2046-2050

- Expand LTHW network
- Electric Boilers



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