



Municipal Utility

SACREMENTO MUNICIPAL UTILITY DISTRICT, SACREMENTO USA



The 6 building campus includes a 200 person office building, warehouse + maintenance facilities connected through a thermal network.



Year built	2013
Client	Sacramento Municipal Utility District
Building size	~51 acres (6 buildings, incl. 200 person office)
Contracts size	\$15,000,000 USD
Project size	\$112,000,000 USD
System size	1.1 MW PV District Thermal; Heat Pumps

As California's largest publicly owned utility, Sacramento Municipal Utility District (SMUD) set a precedent in sustainable infrastructure by targeting net-zero energy performance at its new East Campus Operations Center. ThermaStor team members (with previous firm) served as lead sustainability and mechanical engineers for the project, supporting the development of advanced heating and cooling strategies to minimize energy consumption across all six facilities. The team designed and optimized a centralized ground-source heat pump network, distributing thermal energy across buildings with diverse load profiles. A 1.1 MW solar photovoltaic farm and thermal energy network was engineered to meet the full annual energy demand of the site. **The integration of high-efficiency thermal systems with this onsite renewable generation enabled the project to achieve net-zero site energy while reducing the levelized cost of electricity below prevailing utility rates, a rare and notable outcome for a public-sector campus at the time.**

PROJECT INSIGHT: The success of advanced energy systems hinges not only on good design but also on proper implementation. In this case, our direct involvement in the commissioning process proved critical. On site participation in a one day session with the Cx Authority and project team resolved all outstanding control sequence issues ensuring the system has continued to operate per original design expectations years after completion. This project remains a model for municipal decarbonization and high-performance public infrastructure.