
Solar-powered ultra-low-GWP heat pumps with DC compressors and TES

Project Number 23-07



PROJECT TEAM:

Student: Gabriel Parker;
Faculty: Jeffrey D. Spitler,
Craig R. Bradshaw,
Ardeshir Moftakhari

Goal

Develop innovative system configurations, appropriate for use in a near zero-energy house, that make use of thermal energy storage, air-to-water heat pumps with alternative refrigerants, and grid or local solar photovoltaic power

Outcomes/Deliverables

This year, the anticipated outcomes are a simulation model, a proposed design for a tiny-house demonstration system, and experimental testing of the components