

Development of Thermal Energy Battery

Status: Available

Group Members:

Sponsor(s):

develop new sorption thermal energy storage battery technology with enhanced energy storage density and efficiency for district energy network applications. The objective is to develop a thermal battery to enable the use of industrial waste heat, geothermal, and solar energy sources to provide sustainable heating and cooling for buildings via thermal grids. This research is focused on prototyping, system modeling, test-bed set up, and experimental study of sorption thermal energy storage battery systems.

The Capstone Project will include prototyping, control system, test-bed set up, and experimental study.

absorbing salts in a porous matrix) will be developed and characterized for the thermal battery system. Attention will be given to design, manufacturing, and assembly of different components of sorption thermal battery prototypes. These prototypes cover a wide range of heat exchangers with target-specific and