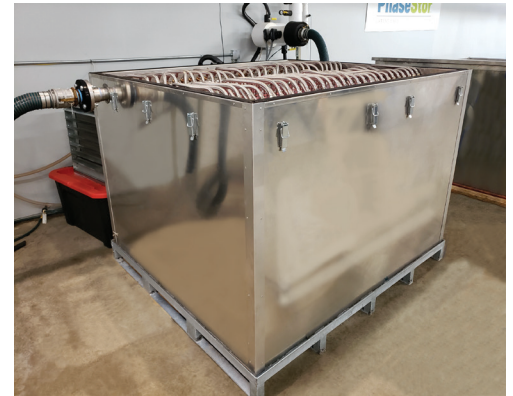


# Thermal Energy Storage Solution: Phase Change

**Active temperature management**

Thermal resiliency & redundancy

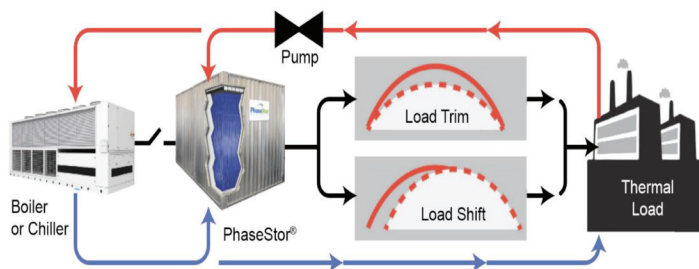


## The Problem

In many operating facilities, energy is one of the highest operating expenses. Maintaining stable temperatures 24/7 in enclosures requires a lot of energy to run the boiler/chiller equipment. Optimizing energy usage becomes imperative to reducing expenses.

## The Solution

PhaseStor® is a large-scale, hot/cold thermal storage solution that can store more than 6x the amount of energy as chilled water. Each unit includes a double-wall insulated tank and is filled with PCM (phase change material) tuned to a specified temperature range (anywhere between -51°C to 100°C). Heat exchangers containing process fluid are fully immersed in PCM and energy is absorbed/released in form of latent heat when the PCM transitions. The PhaseStor® system provides the flexibility to shift energy usage to outside of high-priced peak periods. Each PhaseStor® thermal energy storage unit provides 40-45 (forty to forty-five) ton-hours of thermal storage when fully charged.

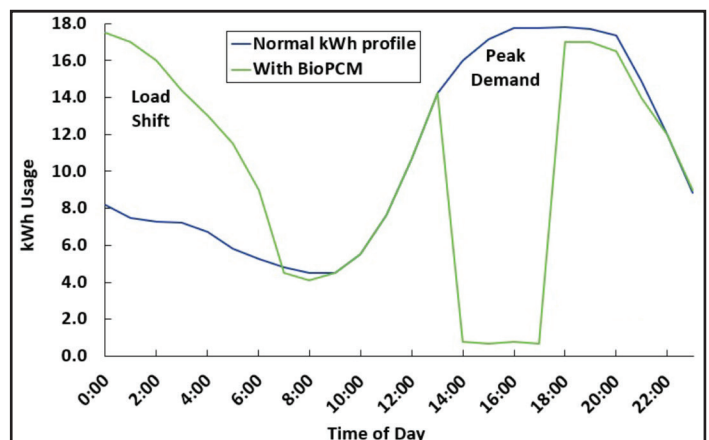


### Customer Gains

- Reduce demand charges - reduces energy use by peak-load shifting
- Preserve equipment integrity
- Reduce operational costs
- Reduce carbon footprint - industrial waste heat can be captured & reused
- Reduce operational and capital costs by downsizing chillers

### FEATURES

- Thermal buffer regulates temperature
- Modular- can be scaled
- Small footprint
- Stackable design- can stack up to 2 units high for efficient energy storage density
- Extends Useful Life of HVAC Equipment
- Long life of performance
- Small volume changes during phase transition avoids tank ruptures



For additional information, email us at [info@eco-smart.com](mailto:info@eco-smart.com) or call us at 941-376-8484

Another innovative product from Eco-\$mart, Inc.