Campus Cooling with BAC Ice Thermal Storage

✔ Reduce Costs with Load Shifting and Demand Response
✔ Reduce Pipe Sizes and Pumping Energy with Colder Water Temperatures
✔ Reduce Storage Tank Size by 75% with Latent Storage

ICE THERMAL STORAGE

Available Products:
- Thermal Storage Units
- Custom Coils

For more information on cooling with ice thermal storage visit www.BaltimoreAircoil.com/Campus
Johns Hopkins University
- The Johns Hopkins University Applied Physics Lab in Laurel, MD installed 8,400 ton-hours of ICE CHILLER® Thermal Storage Coils in underground rectangular tanks to cool the Steven Muller Building and adjacent office and lab buildings.
- The ice thermal storage allows the Applied Physics Lab to save over $150,000 per year on its electric bill.

University of Pennsylvania
- The University of Pennsylvania central plant system consists of 21,033 ton-hours of ICE CHILLER® Thermal Storage capacity serving the campus chilled water loop.
- The ice thermal storage system shifts 4,000 tons (3 MW) of electric demand to off-peak hours.

Stevenson University
- Stevenson University installed four TSU-761M ICE CHILLER® Thermal Storage Units as part of an expansion that doubled the cooling capacity of this private college located in Baltimore, MD.
- The university designed the ice thermal storage system to provide 37°F (3°C) glycol for the 45°F (7°C) air system. This low temperature design utilized smaller piping and duct work, making it possible to avoid unnecessary renovations and reduce construction costs.
- The system shifts 262 kW on-peak demand, saving $44,700 in annual operating costs. The 20-year life cycle savings is more than $460,000 compared to a conventional system.

Guangzhou University City, China
- Located on an island in the Pearl River in Guangzhou China, Guangzhou University City contains ten university campuses serving 250,000 students.
- The campuses are served by three interconnected ice thermal storage plants totaling 253,248 ton-hours storage capacity, making it the world’s largest thermal storage system for campus cooling.
- The ice thermal storage system reduced peak electrical demand by 52,000 kW, saving the city $26 million in electrical equipment cost and 28% in annual operating costs.