

Integrated Energy Systems

Advantages

- The small size of these systems means they are especially well suited to retrofit applications and can augment existing systems.
- Using programmable controls provides benefits customized to each facility.

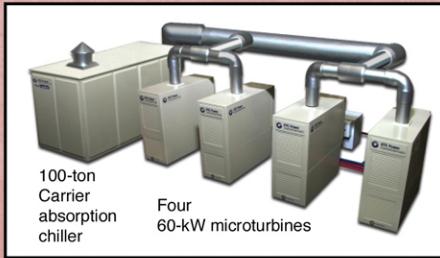


Desiccant Dehumidifier



Double-Effect Absorption Chiller

United Technologies and Capstone Project



100-ton Carrier absorption chiller
Four 60-kW microturbines

UTC Power PureComfort™ 240

United Technologies and Capstone Turbine combined the best characteristics of the Capstone Microturbine's heat output to UTC Carrier's new high-efficiency double-effect absorption chiller technology. The clean exhaust stream of four 60-kW microturbines direct-fires a new 110-ton PureComfort™ chiller. Recycled heat is used to provide air conditioning instead of electric power, conserving energy while maximizing fuel efficiency and energy cost savings.



Gas Technology Institute Project

ORNL has partnered with Gas Technology Institute to develop and demonstrate a 615-kW modular integrated energy system in Boston, Massachusetts. The system supplies electricity, hot water, and chilled water to a four-story office building with a full-height glass atrium. The system utilizes a Waukesha engine with a 125-ton absorption chiller. It has been optimized to improve energy efficiency to greater than 70%. This technology will also be marketed to public education buildings, mid-sized medical centers, large retail stores, and hotels.

