



- Burns and McDonnell in Kansas City Missouri partnered with Solar Turbines Inc. and Broad USA, awarded approximately \$3,000,000 to design and construct a BCHP system that provides electricity from a Taurus 5,200 kW turbine generator, up to 3,000 refrigeration tons (RT) of free waste heat driven absorption cooling and up to 17,000 RT of additional supplemental gas-fired cooling.
- Capstone Turbine Corporation in Woodland Hills, California, awarded approximately \$3,000,000 to design and test initial packaged BCHP Systems based on using waste heat from Capstone's 60 kW microturbines coupled with absorption chillers for air-conditioning and a desiccant for humidity control.
- Gas Technology Institute in Des Plaines (Chicago) Illinois partnered with Waukesha and Trane, awarded \$2,464,202 to combine Waukesha engine generators with Trane absorption chillers. Engine sizes range from 290 kW to 770 kW (matched to several absorption chillers) producing a modular range of sizes to match a variety of building types/markets.
- Honeywell Laboratories in Minneapolis, Minnesota, awarded \$4,259,202 to develop and field test a large (2 to 5 MW) BCHP packaged system. A 2 to 5 MW turbine generator will be combined with a 500 to 2,000 RT absorption chiller. The prototype will be set up and tested at Fort Bragg, N.C.
- Ingersoll Rand in Portsmouth, New Hampshire, awarded \$2,305,469 to combine a new 70 kW microturbine with an ammonia-water absorption refrigeration system. The absorption system will be used for cooling the turbine's inlet air and also for producing refrigeration for building space conditioning and for refrigerator-freezer applications.
- NiSource Energy Technologies in Merrillville, Indiana, awarded \$800,000 to work with the developer of a Hilton Hotel to demonstrate a modular packaged BCHP system. The system will consist of three microturbines, heat recovery heat exchangers, an absorption chiller, a desiccant unit, and an integrated control system. The resulting product is targeted at hotel/motel chains – with the goal of becoming the hotel/motel customers' standardized model.
- United technologies Research Center (UTRC) in East Hartford, Connecticut, awarded \$2,841,193 for an accelerated BCHP system based on existing off-the-shelf components to make an initial packaged system within the first year of the project. An additional second optimized BCHP system will also be developed. The systems will be based on the new 400-kilowatt DTE Energy Technologies Microturbine system coupled to Carrier absorption chillers. Both recuperated and un-recuperated microturbine combinations will be used. Possibly use of waste heat driven ammonia water refrigeration systems, desiccant systems, and thermal storage are also being evaluated.

These projects are expected to develop easy to order and install packaged systems that will supply energy at the customers' site, improving electric reliability, supporting existing utility grids, and increase energy and economic efficiency.