

DELIVERING POWER WHERE FACILITIES NEED IT MOST

With Combined Heat & Power (CHP) as a form of onsite power generation, you control your electricity rates. Learn more about how these higher education facilities use CHP in the recovery of waste heat to produce thermal energy for cooling and heating in their facilities.



COMBINED HEAT & POWER

SUNY COBLESKILL

This college's 130kW CHP system consists of two Capstone microturbines. The integrated CHP package provides hot water and electricity to the Bouck Hall pool and athletic building for pool water and space heating. In addition it provides electrical power in parallel with the utility and to critical loads in the event of a power outage.

GEM Energy secured a NYSERDA incentive for the project, supplied the CHP equipment package, oversaw the installation and performed startup and commissioning. GEM Energy will perform ongoing maintenance of the CHP system under a five-year Factory Protection Plan (FPP).

The Capstone CHP system is the second distributed generation (on-site power) system on SUNY Cobleskill's campus. It is joined by a 75 kW solar array which provides renewable power on the east side of campus.



SUNY COLLEGE OF ENVIRONMENTAL SCIENCE AND FORESTRY (ESF)

The Capstone Turbine combined heat & power (CHP) system in SUNY ESF's Gateway Center, a student commons and event center, is part of a power system that provides 60% of campus heat needs and 20% of campus electricity, saving the college \$520,000 in utility expense annually. The Capstone CHP system can power the building's critical loads in a utility outage, providing a resilience benefit to the campus.

GEM Energy supplied the CHP equipment package consisting of three 65 kW microturbines and a heat recovery steam generator producing 15 psig steam, performed startup and commissioning, and currently maintains the system under an FPP. Complementing the Capstone CHP system is a parallel woodchip-fueled boiler that spins a steam turbine to generate electricity prior to sending excess steam to the campus heating loop.

A benefit to students in the Sustainable Energy Management degree program, the Gateway Center's 'living laboratory' allows them to observe and work directly with a sustainable energy system as part of the classroom experience.

