

NEWS

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A NEWS BRIEFING ON CU-BOULDER'S NEW MICROTURBINE

Officials will showcase a new micro turbine Nov. 17 that heats and provides electricity for the swimming pool at the University of Colorado at Boulder Student Recreation Center while saving the university about \$10,000 per year in energy costs.

The micro turbine -- the first of its kind on the CU-Boulder campus and one of only a few in Colorado -- was installed in the summer of 2004, came online in October and is expected to provide 200,000 kilowatts of power annually. It uses natural gas to generate electricity for the pool pumps, and its 530-degree-Fahrenheit exhaust is used to heat the water.

"Micro turbine technology is an efficient, compact, ultra-low-emission way to produce electricity and heat for combined applications," said CU-Boulder energy conservation officer Moe Tabrizi. "CU is committed to conservation and reducing energy costs campus-wide, and the micro turbine helps us accomplish that." High-pressure natural gas powers the system's turbine engine.

The engine has only one moving part, a shaft with a turbine wheel on one end, a permanent magnet generator on the other and an air compressor wheel in the middle. The micro turbine will be used to familiarize engineering students with distributed power generation, according to Tabrizi.

CU-Boulder was chosen to receive the micro turbine because of the university's ability to expose students and public to an emerging energy technology. "The retrofit installation demonstrates the feasibility of how emerging energy technologies like micro turbines can work in synchronization with existing systems, while boosting energy efficiency and savings," Tabrizi said.

The electricity and heat provided by the micro turbine were previously generated by the university's Power House, which continues to provide electricity to the Recreation Center and other facilities on campus. The micro turbine was made possible by CU-Boulder's Facilities Management, University of Colorado Student Union, Recreation Services, the Colorado Governor's Office of Energy Management and Conservation, Tri-State Generation and Transmission Association, Inc. and Capstone Micro turbine.

"As energy costs increase, it is important to utilize the most efficient technologies," said OEMC executive director Rick Grice. "OEMC is proud to provide Coloradoans an opportunity to see how well these technologies can work in real applications."

For more information about micro turbine technology, visit <http://www.colorado.edu/conservation> OR <http://www.state.co.us/oemc>. For more information about the briefing, contact Moe Tabrizi at (303) 492-1425, Megan Castle at (303) 894-2383, or Mike Liguori at CU-Boulder News Services at (303) 492-3117.

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