

'Precooling' office buildings studied

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Purdue University engineers say they've developed a method for "precooling" small office buildings to cut energy costs.

James Braun, a Purdue professor of mechanical engineering, said precooling would reduce energy consumption during times of peak demand, promising not only to save money but also to help prevent power failures during hot summer days.

Precooling involves running air conditioning at cooler-than-normal settings in the morning and then raising the thermostat to warmer-than-normal settings in the afternoon. The method has been shown to reduce the cooling-related demand for electricity in small office buildings by 30 percent during hours of peak power consumption in the summer, Braun said.

Small office buildings represent the majority of commercial structures, so reducing the electricity demand for air conditioning in such buildings could help prevent rolling blackouts, such as those that plagued California during the summer of 2000.

Braun said the study focused on California because research was funded by the California Energy Commission, but the same demand-saving approach could be tailored to buildings in any state.

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