

Purdue studies office building power

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Purdue University engineers say they've developed a method of "pre-cooling" small office buildings, cutting energy consumption during times of peak demand.

The new procedure promises not only to save money, but also to help prevent power failures during hot summer days.

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 California's sweltering summer climate.

James Braun, a Purdue University professor of mechanical engineering, says small office buildings represent the majority of commercial structures, so reducing power demand for air conditioning in such buildings could help prevent power-capacity problems such as those that plagued California during 2000 and 2001.

The research at Purdue's Ray Herrick Laboratories focused on California because the study was funded by the California Energy Commission, but Braun said the same demand-saving approach could be tailored to buildings in any state.

Findings will be detailed in three papers to be presented next Monday during the winter meeting of the American Society of Heating, Refrigerating and Air-Conditioning Engineers in Chicago.

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