



KEEPING COOL DURING PEAK DEMAND IN ANAHEIM

By Don Horne

This past summer, California baked under an unrelenting heat wave – a heat wave that pushed peak demand to the limit for many west coast utilities.

In Anaheim, the city council approved the Ice Bear system, making it the only product to meet that city's new Thermal Energy Storage (TES) Incentive Program.

Made by Ice Energy, Inc., the Ice Bear system relieves stress from the power grid by shifting peak energy used by air conditioners to evening hours.

The Ice Bear module is a simple add-on to a conventional air conditioning unit and uses off-peak electricity to efficiently make and store ice at night. The

energy stored as ice provides effective cooling during the hottest hours of the day dramatically reducing peak electrical demand while promoting energy efficiency.

“Air conditioners are the single largest contributor to California's peak power problem, accounting for greater than 50 percent of peak demand on hot summer days. During our heat wave in July of this year, California's grid operators reported record demand of 50,269 MW, a level not expected to be reached until 2011,” said Marcie Edwards, General Manager, Anaheim Public Utilities.

Anaheim installed California's first

Ice Bear system in September 2004 at the city's Fire Station #8, and the unit has consistently demonstrated a 95 percent reduction in peak demand and a 5 percent overall reduction in energy consumed.

“As we saw all too clearly, peak electricity is a critical issue facing California, and technologies like the Ice Bear product from Ice Energy constitute a crucial piece of the solution. At Anaheim Public Utilities, we are raising the bar with our TES Peak Shifting Program.”

As part of the new program, Anaheim's City Council approved a

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groundbreaking TES rate. This new rate strongly encourages peak demand reduction in light commercial and industrial buildings. Under the terms of the TES Incentive Program, Anaheim businesses can receive up to \$21,000 for the demand reduction associated with each Ice Bear system applied and benefit from ongoing electricity bill savings.

“Electricity end users can reduce their electricity bills and total energy consumption without sacrificing cooling comfort,” says Frank Ramirez, CEO of Ice Energy, Inc. “Meanwhile, utilities can manage peak energy demand and meet their customer needs without relying on the persistence of voluntary curtailment or straining their existing infrastructure. As more utilities follow Anaheim’s pioneering lead, Californians can look forward to cooler indoor summers.”

Anaheim’s TES Peak Shifting Program provides financial incentives for participation in the utility’s peak reduction program based on the age and size of each air conditioning unit to which an Ice Bear system is applied. Additionally, the utility will offer a special TES time-of-use rate specifically designed to provide savings for shifting energy use away from peak times of day.



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