

# Big Box Electronics Store

Irvine, California

### Situation

As summertime temperatures increase, air conditioners work overtime, straining the grid to peak demand levels and making everyone a lot less comfortable. Air conditioning systems running during the hottest part of the day draw the most power. At the same time, they experience degraded comfort cooling performance. In June 2018, this big box electronics retail store, which had 15 year old HVAC equipment, spent \$6,202 on their electricity bill. In June 2019, they spent \$4,622. As a result of installing 7 Ice Bears, this location is offsetting approximately 24,500 lbs of CO<sub>2</sub> annually. This is equivalent to planting 294 trees a year.

### Solution

In November 2018, 65 tons of aging, inefficient air conditioning units were replaced with 7 brand new Ice Bear 40 thermal storage units and 65 tons of new High Efficiency Carrier packaged units. The Ice Bear 40 thermal storage units were offered at drastically reduced pricing as part of the Ice Energy SoCal Thermal Storage Program, while installation efficiency also allowed Ice Energy to offer rock-bottom pricing on the HVAC units.

Ice Bears take over cooling from the power-hungry HVAC equipment everyday from 2 p.m.–6 p.m. During that time, the building is cooled by the Ice Bears. At all other times of the day, the packaged units work as normal.

### Results

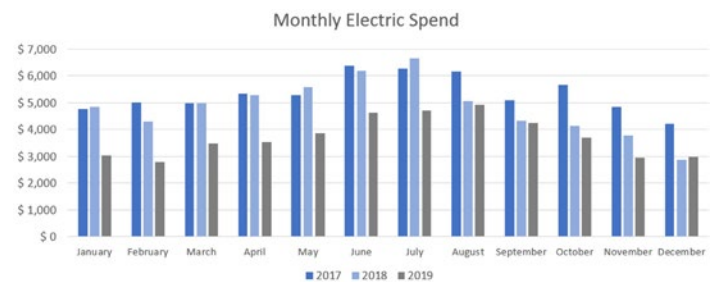
Despite extreme summer heat, which drove temperatures above 100°F, the new Ice Bears worked flawlessly. This site saw **\$12,278** in total electric bill savings, a 32% reduction, since November 2018. Demand dropped by up to 31kW during peak hours from June 2018 to June 2019, which translates into up to a 17% decrease in monthly demand costs in the first seven months of operation.

The Ice Bear thermal storage units are covered by a bumper-to-bumper, zero-cost, 20-year service contract, while the new HVAC equipment lowers on-going O&M costs and reduces the net operating costs of the building.



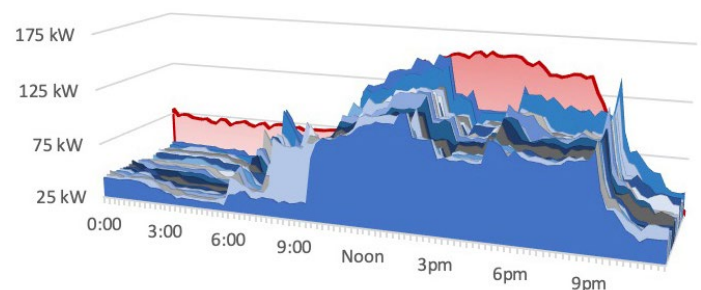
Size 50,000 ft<sup>2</sup> Electronics/Retail Store

### Comparison of 2017–2019 electric bills from General Tool



### Big Box Retail Store, Orange County

Big Box Retail Store, Orange County  
2019 Daily Load Profiles (blue) vs. 2018 (in red)



**Ready to learn more?** Contact us today to find out how Ice Bear thermal storage can help your business reduce your yearly energy costs.

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