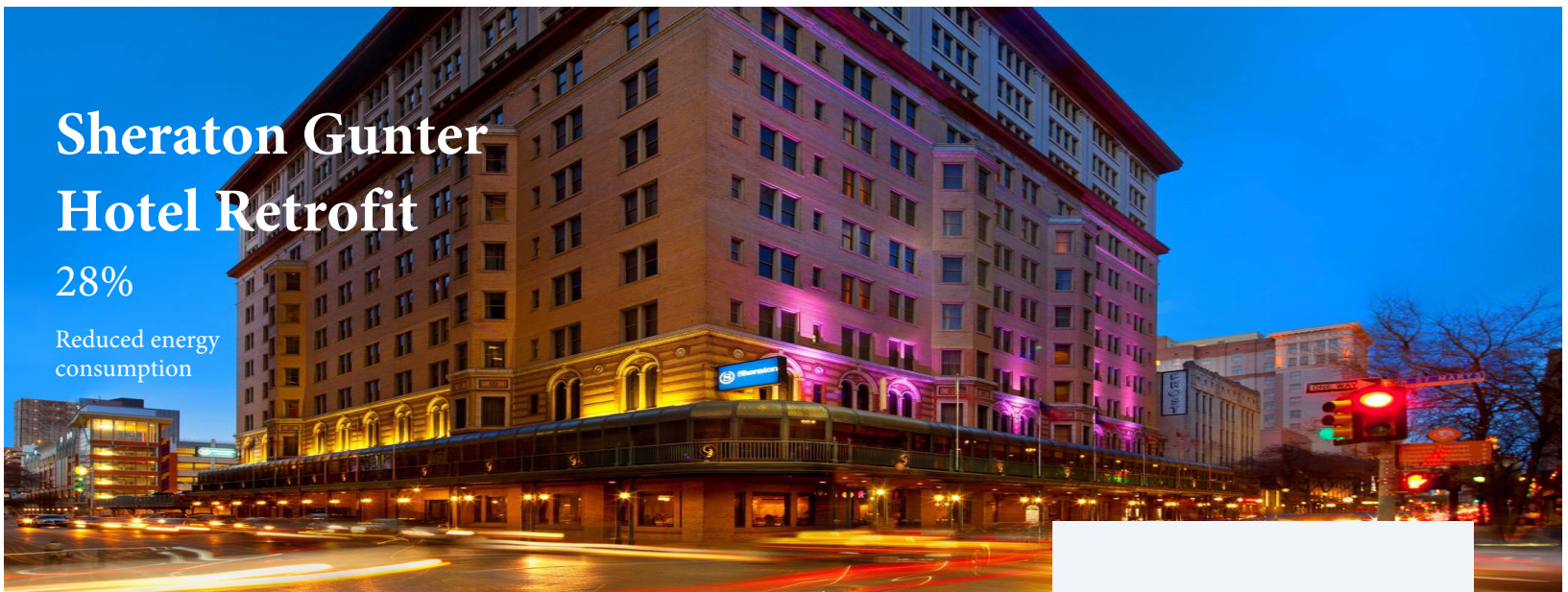


Sheraton Gunter Hotel Retrofit

28%

Reduced energy
consumption



Challenge

This historic site at the heart of downtown San Antonio was suffering from high maintenance cost and increasing guest complaints. The building has a water-cooled chiller system with outdated chillers and cooling tower. The fans and pumps were operational continuously with no controls. The existing building management system was not operational and there was no monitoring system in place. CVAL team was hired to help the hotel management to conduct detailed engineering assessment to identify opportunities for reduced energy consumption.

Solutions

An ASHRAE1 Level II audit focusing on Lighting, Insulation, Heating Ventilation and Air Conditioning (HVAC) systems was performed at the facility followed by implementations of energy reduction measures. CVAL implemented efficiency measures and sustainable designs, that help in deep energy conservation design strategies that has reduced energy use by 28% vs. baseline design.

Lighting Retrofits

CVAL carried out comprehensive replacement of indoor fixtures with high efficiency LEDs. The new lighting system will save 676,709 kWh/yr of energy which corresponds to \$48,795 annual savings on utility.

Chiller Replacement

The carrier chiller installed in 2001 was approaching its end of useful service life and its efficiency was much lower than the current standard. CVAL replaced these outdated cooling units with right-sized, premium efficiency chiller.

Cooling Tower Replacement

The Marley cooling towers were at the end of their useful lifespan showing significant signs of corrosion. CVAL installed new high efficiency cooling tower systems equipped with VFD. This replacement resulted in 14,963 kWh/yr of energy savings and \$22,641 annual utility savings.

Boiler Replacement

The hot water heating system consists of a single gas fired boiler manufactured in 1988. CVAL analyzed this heating system and replaced the boiler to a more efficient lower temperature condensing boiler.

Building Details

- **Location:** San Antonio, Texas
- **Building Type:** Hotel
- **Building Height:** 12 story
- **Year Built:** 1909
- **Building Area:** 233,055 sq ft
- **Energy Assessment:** October 2016
- **Efficiency Measures:** 4
- **Investment:** \$847K
- **Operational Savings, \$/yr :** \$180K
- **Rebate Potential:** \$80K
- **Simple Payback, years:** 4.7