



# sure bet program



## NEVADA SURE BET PROGRAM

Offered By: Sierra Pacific Power and Nevada Power

Administered By: KEMA, Inc.

### Reno Hilton

### *Air Compressor Replacement Performance & Energy Savings*

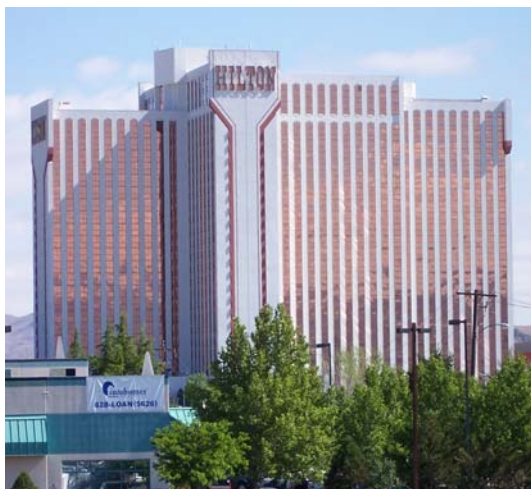
#### **Facility Description:**

The Reno Hilton is one of the largest hotel/casinos in Northern Nevada with approximately 2,000 guest rooms. The facility offers access to premiere restaurants, entertainment, shops, a bowling alley, convention and banquet facilities as well as 115,000 square feet of 24-hour a day casino action. The air compressor described below is a part of the HVAC control system, affecting the laundry facilities, showroom, and kitchen. The compressor operates 24 hours a day, making this system a prime candidate for consideration for an incentive payment under the Sure Bet Program.

#### **Project Overview:**

When Steve Keltner and Don Apodaca, Director and Assistant Director of Property Operations for the Reno Hilton, decided to install a new variable frequency drive (VFD) air compressor at the facility, they were convinced that they would see both energy and demand savings. However, the new compressor system with VFD exceeded their initial expectations.

The estimated peak demand and energy savings from replacing the two 30-horsepower Sullair air compressors with one 60-horsepower Atlas Copco VFD air compressor were 12.2 kW and 106,872 kWh, respectively. However, the *measured* peak demand and energy savings were over 50% greater at 19 kW and 169,068kWh. The newly installed VFD air compressor offers the capability to match compressor



**Reno Hilton Hotel Casino**



**Don Apodaca and Steve Keltner with the New Atlas Copco VFD 60-hp Air Compressor**

capacity to air demand and follows the fluctuating demand by varying the speed of its drive motor. As air demand goes down, the VFD air compressor lowers the delivered flow and, consequently, the power consumption (or kW and kWh consumption). This is important because the amount of compressed air needed varies with the number of guests present at the hotel/casino at any given time. The compressor no longer has to operate at full capacity unless occupancy is at its peak.

Through the energy and peak demand savings realized as a result of this retrofit, the Reno Hilton is eligible for a custom incentive payment of just under \$7,000. This incentive payment effectively lowered their simple payback period by approximately 6 months. With the proven success of this energy conservation project, Mr. Keltner and Mr. Apodaca plan to pursue additional energy saving opportunities at the facility.

**Project Results:**

Demand Savings	19.0 kW
Annual Energy Savings	169,068 kWh
Annual Energy Cost Savings	\$15,475.00
Total Project Cost	\$24,356.00
Custom Incentive	\$6,972.00
Payback Period (Years)	1.1