



# Sure Bet for Schools



## Gymnasium Lighting Retrofit

### Nye County School District, Tonopah Middle School

#### Project Description:

Nye County School District converted existing High Intensity Discharge (HID) fixtures to T5 High Output 4-lamp “Big Gym” fixtures in the school gymnasium. The project provides demand and energy reduction and aids in the district's on-going effort to save energy while improving the lighting conditions and reducing maintenance costs.

*Contractor: Quality Control Systems*

#### Results/Benefits:

This project involved converting 18 HID fixtures with 1000 Watt lamps to T5 “Big Gym High Output” fixtures with 4 lamps and electronic ballasts. Additionally, six 300 Watt fixtures were also retrofitted with the same T5 fixtures. Due to the degradation of metal halide lamps, lumen output and color rendition improved. T5’s with electronic ballasts provide a 48% demand savings over the original HID lighting system. Along with brighter and better quality light output, T5 lamps need no “warm up” period when turned on. This provides the gymnasium the benefit of the extra savings afforded due to the ability to be turned off during periods of non-occupancy.

#### Project Details:

	<b>Total</b>
On-Peak Demand Savings	3.94 kW
Annual Energy Savings	39,105 kWh
Total Project Cost	\$11,660
Annual Energy Cost Savings*	\$4,302

\*Assumes that the electricity rate is \$0.11/per kWh

**Note:** assumes annual usage of 2820 hours



Middle School Gym before retrofit