

Colorado River Union High School District Fort Mohave, Arizona

Energy Management & Conservation Performance Contract

APS Energy Services completed an Investment Grade Audit for Colorado River Union High School District in Fort Mohave, Arizona. The Audit resulted in the development of a comprehensive package of sustainable projects for the District that resulted in approximately 33% in annual utility cost avoidances. APS Energy Services implemented the following Energy Conservation Measures:

❖ Comprehensive Lighting System Retrofit

A total of 5,190 fixtures were replaced with energy efficient components that reduce electric consumption and improve lumen output at acceptable light levels for each area/room.

❖ Power Save® Installation

Installation of Power Save® computer energy management software that provides the system administrator with enterprise-wide control over advanced computer power configurations.

❖ Controls

Installation of a Building Management System (BMS) to improve HVAC reliability and enhance building efficiency while providing an easy to use interface for monitoring and scheduling of the District's building systems.

❖ HVAC Replacement

Removal and replacement of 8 split system HVAC units serving the administrative suites. In addition to new equipment ductwork, modifications will be made to improve the overall comfort for this space.

❖ Chiller Retrofit

Demolition and removal of the two existing (250-ton) chillers that serve the campus as back-up. Installation of a new variable drive 400-ton screw chiller to serve as the primary campus cooling unit. The existing 450-ton York chiller now serves as back-up to the new chiller.

❖ Cooling Tower Retrofit

Refurbished the existing 450-ton Marley cooling tower. This work included a complete cleaning and epoxy style coating to extend the life of the tower, installation of new rails for safety and installation of the new VFD to operate the cooling fan more efficiently during part load operation.

❖ Boiler Replacement

Removal of the existing inoperable heating hot water boiler and replacement with a new high efficiency unit.

❖ Water Conservation Program

Installation of low flow urinals on existing urinals throughout 21 locations on Campus.

To date, the total annual energy savings for the Colorado River UHSD project is:

- ❖ 1,886,169 kWh
- ❖ 15,185 therms
- ❖ 1,680,000 Gallons of Water

These savings translate to the following environmental benefits:



262

Passenger cars not driven for one year



162,373

Gallons of gasoline saved in one year



10

Acres of forest preserved from deforestation in one year