



Pinal County, Arizona

Energy Management & Conservation Performance Contract

APS Energy Services proposed a comprehensive Energy Efficiency Program to be implemented in two phases at Pinal County. The Pinal County complex of buildings consisted of several sites in a campus setting. These sites included Administration Buildings I, II and III, the New Court House, Adult Detention, the Casa Grande Complex and Health and Human services. The complex of buildings total approximately 248,224 square feet.



Phase I consisted of the following Energy Conservation Measures (ECMs):

- ❖ New Direct Digital Controls and Energy Management System were provided for each of the fifty-one heat pump units at Administration Buildings I and II
- ❖ Incandescent exit signs were replaced with LED exit signs
- ❖ In the New Court House Building E, the existing HVAC system was replaced in this 26,564 square foot facility with a new air-cooled chiller, air handler, boiler and three dedicated package units for the Courtrooms and Judges Chambers.
- ❖ A lighting retrofit was implemented at Administration I & II, Adult Detention Center, the Casa Grande Complex, Courthouse and the Long Term Care facility. The upgrade included the replacement of T-12 lamps with magnetic ballasts to T-8s with electronic ballasts & reflectors; incandescent lamps with new compact fluorescent fixtures; new LED exit signs; and occupancy sensors.



Phase II consisted of the following Energy Conservation Measures (ECMs):

- ❖ Retrofit of T-12 fluorescent lighting with magnetic ballasts with T-8 lighting with electronic ballasts, and low power electronic ballasts in the Administration Building #3, Sheriff's Station, Public Fiduciary Building and the Apache Junction Facility.
- ❖ Installation of Direct Digital Controls and EMCS control system to operate roof top multi-zone package units and heat pumps for the Administration Building III, Sheriff's Building, Health and Human Services, Casa Grande Complex and the Apache Junction Facility.
- ❖ Replacement of the existing chiller and cooling tower with an air cooled chiller, demolished the old chiller and cooling tower, and upgraded the associated electrical and conduit for the control system from building to building. Purchased fan coil units and assisted county personnel in installation in the Casa Grande Complex.



To date, the total annual energy savings for the Pinal County project is:

- ❖ 905,432 kWh

These savings translate to the following environmental benefits:



119

Passenger cars not driven for one year



73,808

Gallons of gasoline saved in one year



5

Acres of forest preserved from deforestation in one year