



Colorado River Commission ACTION PLAN

2006 – 2007 Progress Report

1. The renovation of one set of rotating elements at our Booster Pumping Plant was completed in April of 2006.
2. Completed the installation of one solid state exciter at our Booster Pumping Plant.
3. The renovation of one of our vertical turbine pumps at our Intake pumping plant is scheduled for completion in December of 2007. Each high efficiency pump reduces energy consumption over the previous pump design while maintaining similar flow rates.
4. The renovation of one set of rotating elements at our Booster pumping plant is scheduled for completion in December of 2007.

Short-Term 2008 - 2009

1. We will continue with the replacement of one of the motor-generator sets each year with a solid-state exciter at our Booster One pumping plant. When installed, the solid-state exciter will monitor and automatically maintain unity power factor for the synchronous motor to which it is connected. The replaced motor-generator sets previously had no automatic capability to adjust output to maintain unity power factor.
2. Upgrading the pump room lighting at both of our pumping plants which includes the replacement of the existing 500 watt incandescent lamps with 400 watt metal halide high bay fixtures. This will save approximately 5,000 kWh per year.
3. Continue with the upgrade program to complete the replacement and/or renovation of our existing pumps with high efficiency designs at both of our pumping plants. We remain on schedule with one unit to be renovated at each location in 2008 and 2009. Each high efficiency pump reduces energy consumption while maintaining similar flow rates
4. Complete the renovation of the two remaining Booster pumping plant substation transformers with low loss core and coil design utilizing copper windings at an approximate cost of \$125,000 each. The energy savings is contingent upon the efficiency of the new transformers.



Long Term 2010 – 2013

1. Continue with the renovation of the Booster pumping plant centrifugal pump rotating elements (two for each drive unit) at an approximate cost of \$140,000 per set.
2. Continue with the renovation of the vertical turbine pumps at our Intake facility at an approximate cost of approximately \$145,000 per unit.
3. Complete the replacement of the final motor-generator set with a solid-state exciter for the remaining synchronous motor at our Booster One pumping plant in 2010. The cost for each solid-state exciter is approximately \$75,000 per unit.