U.S. General Services Administration



Federal Center Building 8, Denver Colorado

Project Type: **Power Quality Improvement**
Project Size: **1 Unit**
Project Cost: **$20,000**
Date: **March 2014**
ROI: **Less than One year**

The purpose of this project was to improve the Power factor on the VFD controlled motor. The pumping station has 7 pumps in total but only one pump works at any one time.
The no load current on each VFD controlled pumpset is 54 Amps and the ON load current is 68 to 78 Amps.
The KVAr on each VFD circuit is 44 KVAr.
The power factor is 0.18



Accentz Inc provided the GSA with the MPTS unit.
Requirements included pre-installation meetings, site inspection, Installation and M& V.

Data is being logged with the MPTS connected and is compared with data before MPTS was connected
The summarized results of the data recorded from this installation at Building #8 Pumping station are as follows:

- The electrical current consumption on no load decreased from 54 amps to 9.72 amps; a savings of approximately 82 percent. The On load current consumption decreased from 78 Amps to 58 Amps; a savings of approximately 25.6 percent.
- The estimated total electrical energy savings is equal 35.61 KWs
- The estimated annual consumption savings is an average of 314, 613 KWHs
- The KVAr decreased from 44 to 2 KVAr
- The estimated annual dollar savings is an average of $31,461.00
- The efficiency (PF) improved from 0.18 to 0.98

Reference:
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