



## WATER PUMPING REFERENCES

Names deleted to ensure client confidentiality.

**COMMERCIAL CLIENT - Massachusetts** – This water treatment facility had KVAR ECs™ installed on six motors (four 20 hp, one 15 hp, and one 7.5 hp) with 20% monthly savings on their electric bill.

Initial power factors ranged from 0.58 to 0.78. Using KVAR Energy Controllers, the optimization brought up PF to between 0.96 and 0.99.

The client is pleased with the PF improvements within the plant and with a 14 months ROI, stated that the system is certainly meeting expectations.

**COMMERCIAL CLIENT, Florida Waste Water Treatment Facility** – The KVAR Distributor surveyed 43 lift stations. They were all powered by single phase, 240 volts motors.

Six of these were main filling stations in which the smaller stations over flowed into. The worst PF was 0.11 and the best was 0.89, with over half of the motors operating in the 0.60 PF range. The intent of the project was to reduce energy, line losses and heat.

The client also wanted to protect against inrush current to reduce maintenance and motor replacements. On September 15th 2009, six KVAR ECs™ were installed on the motor of the six main filling stations. Using the KVAR patented US1 sizing apparatus, the proper amount of capacitance was introduced into the system and PF was optimized to 0.99, with a 30% reduction in amperage.

Heat factor was reduced by as much as 15 degrees and the client still has not had to replace a motor. Before the use of KVAR ECs™, the motor replacement rate averaged between 6 to 8 months.

The deployment of KVAR ECs™ continues to provide a sustained average energy savings of 10%, with every optimized motor load being individual metered. This client has given the go ahead on another KVAR ECs™ deployment at its facilities in Columbia, South Carolina.

**COMMERCIAL CLIENT - Waste Water Treatment Plant** – The first phase of the **Name Withheld** Waste Water Treatment Plant involved the installation of KVAR ECs™ on three 125HP Aeration Blower motors.

The KVAR ECs™ replaced 28 year old non-functioning Square D capacitors. The Waste Water Treatment plant realized a significant savings in kWh with a PF of 0.97.

The ROI on the project was 5.8 to 9.6 months. The facilities superintendent was very impressed with the quality of service received since the KVAR Distributor was able to identify and diagnosis several electrical system problems within the facility and provide solutions. This client intends to continue the deployment and commissioning at its multiple facilities.

**COMMERCIAL CLIENT**, Massachusetts Wastewater Treatment Plant – The KVAR ECs™ are installed on four blowers that alternate running all day and four effluent pumps.

In the first month of operations, the client saw an 18% reduction in electricity usage compared to the same month, a year prior. (ROI: Less than 6 months)

**MUNICIPAL CLIENT - Massachusetts** – A total of 57 well stations are involved. The pilot project was on 6 sites. Motors ranging from 7.5 hp to 100 hp were measured and KVAR ECs™ were installed on 12 loads. The 100hp motors PF was increased from 0.85 to 0.99 and the Amperage was reduced from 122 to 99. Savings are averaging 12-18% per station. The reduction in motor temperature was also a great factor since it dropped substantially with the use of KVAR Energy Controllers