

Colorado State University

MPTS Performance Verification

Revenue Metering Data

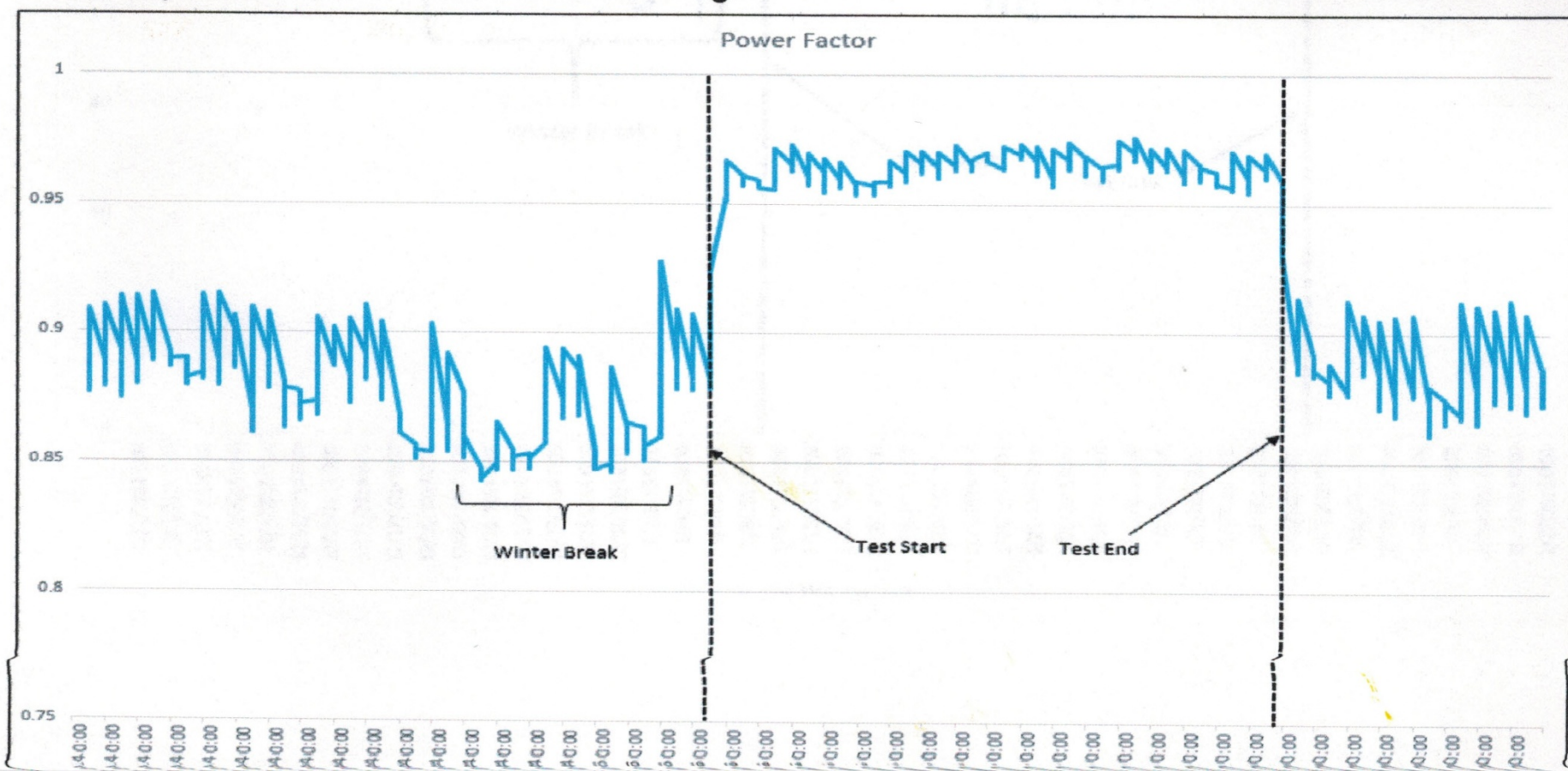
TRANSPower POWER CONDITIONER

A TransPower MPTS 225 (225A, 208/120V) was temporarily installed between the ERC B Wing MDP and Panel P11 (400A) on January 6, 2015. It was turned on January 8, 2015 to determine what kind of electrical saving could be obtained by using the Maximum Power Transfer Solution (MPTS) Control. The unit was turned off on February 12, 2015. A power analyzer, Fluke 1750, was used to monitor the electrical system before the MPTS 225 was turned on and until February 25, 2015 to get comparative data when the unit was on and off. The Fluke 1750 test cables were connected on the feeder cables as they entered the TransPower MPTS 225. The following observations were noted at the point when the unit was turned on and off. The Appendix includes a Power Analysis Summary Report.

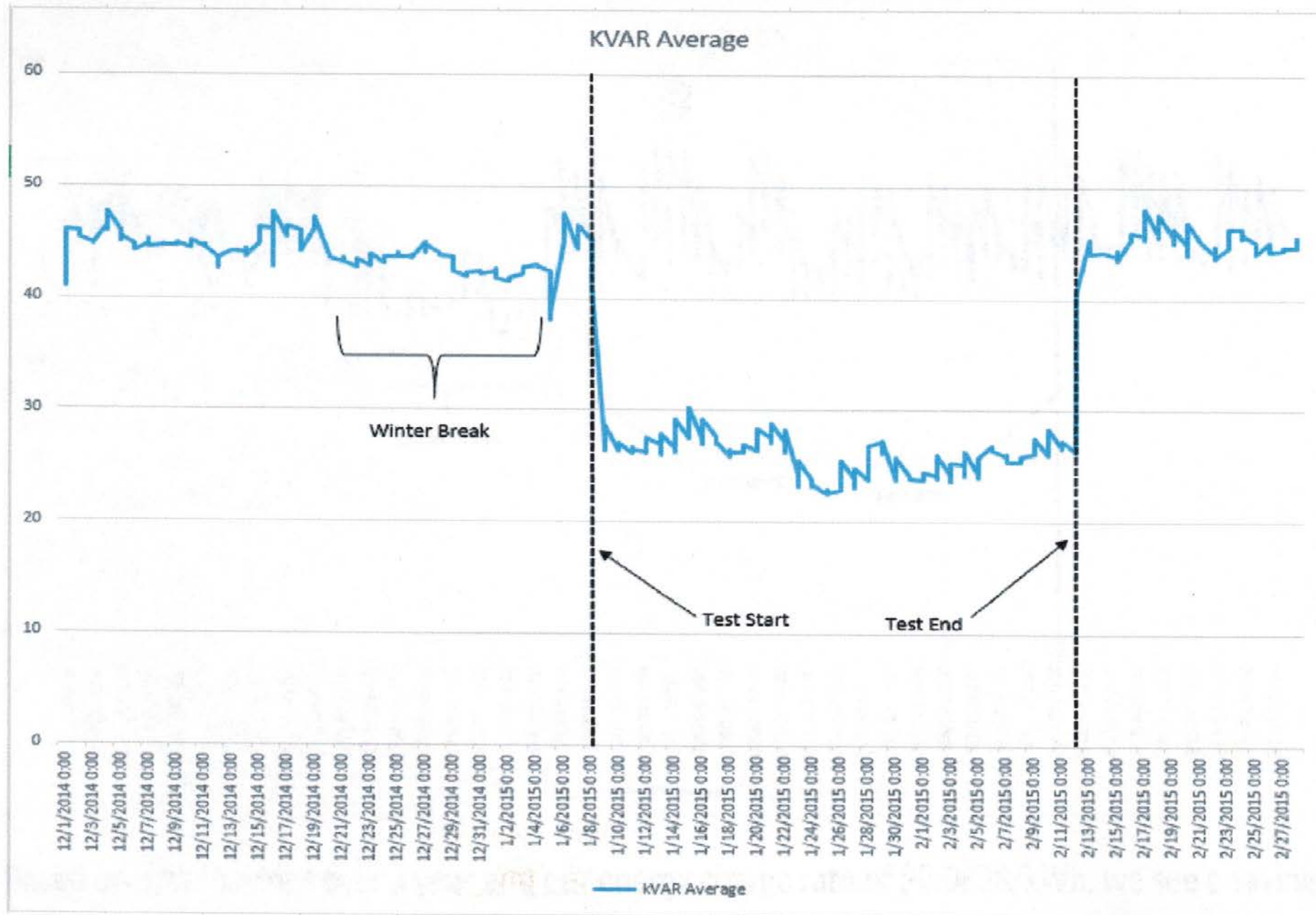


Revenue Metering Data

The following is the data from the utility revenue meter on the Moby B Wing service. This meter would be where the meter readings would be taken to show the electrical energy savings. The values indicated are the average values for the period before, during, and after the TransPower MPTS unit was on line. This gives us a good idea of what the building power usage is before, during, and after the unit was on line. Power factor improved dramatically. The power factor improved from 0.88 to 0.96 on average.

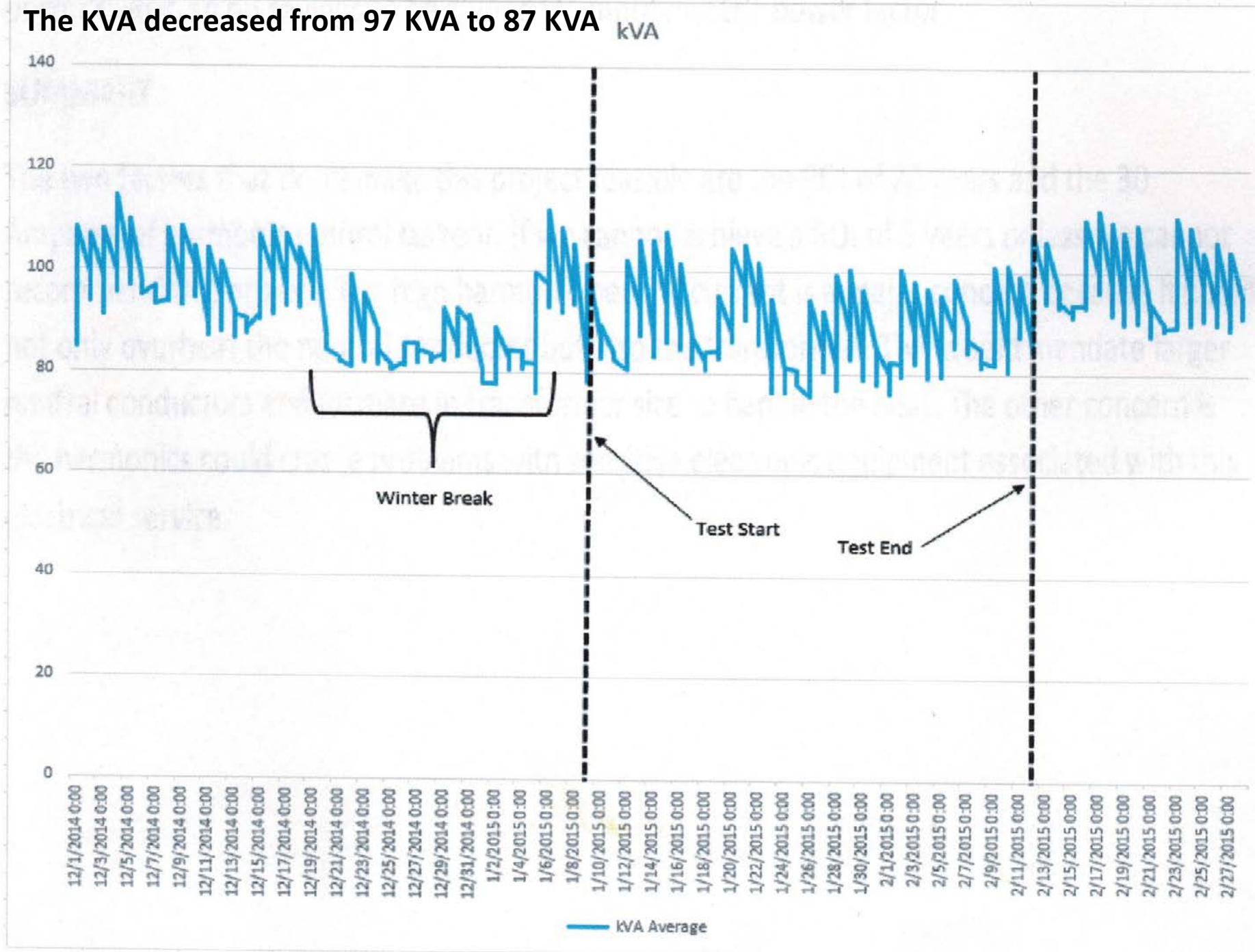


The kVARs decreased substantially from 45 kVAR to 26 kVAR.



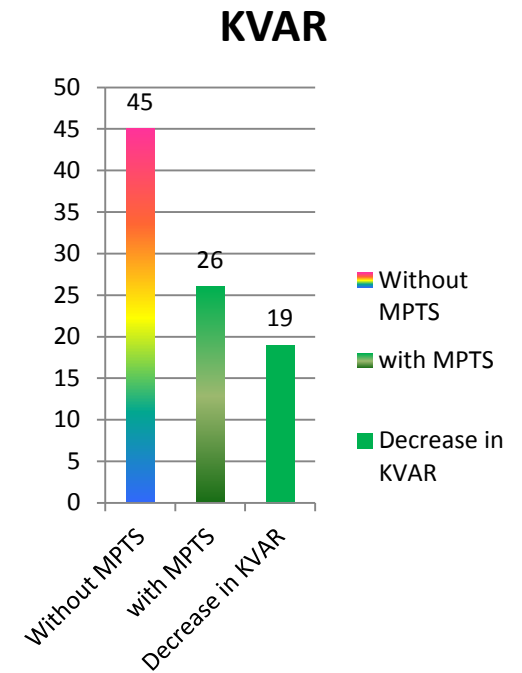
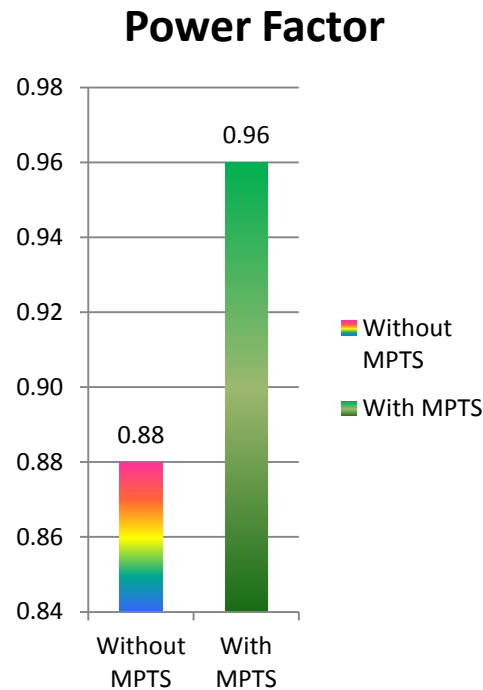
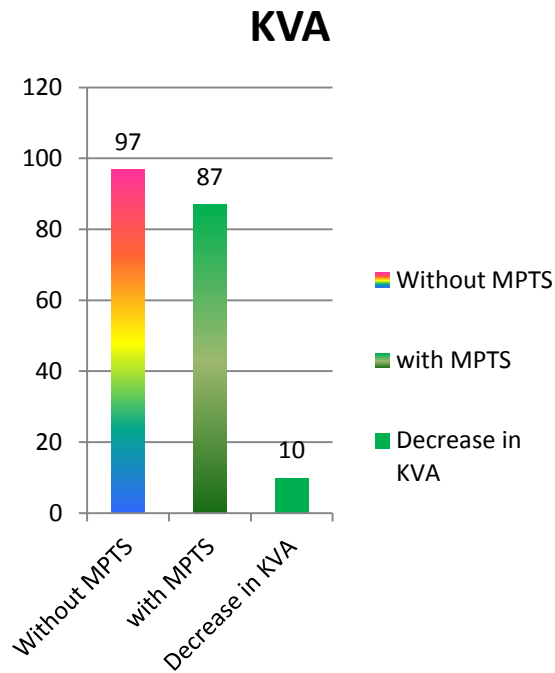


The KVA decreased from 97 KVA to 87 KVA



Summary of MPTS performance verification

January – February 2015



KVA	KVA
Without MPTS	97
with MPTS	87
Decrease in KVA	10

PF Improvement	Power Factor
Without MPTS	0.88
With MPTS	0.96

Total KVAR	KVAR
Without MPTS	45
with MPTS	26
Decrease in KVAR	19