# Custer Public Power District

**Operations Manual** 

Policy Number: 112

Management Approved Date Effective: March 1, 2013

# POWER QUALITY COMPLIANCE

### **OBJECTIVE:**

To minimize the impact of facility harmonic distortion on the utility power system created by consumer connected equipment that may restrict or prohibit the performance of District owned equipment.

## PROVISIONS:

- Whereas the District has a substantial investment in time and resources for the installation of metering and load management equipment for the ultimate economic benefit of the customers of the District, compliance to this policy will assure the proper operation of the equipment as intended.
- Whereas the IEEE Standard 519-1992 provides recommended limits for total harmonic voltage and current distortion, if no interference between electrical equipment exists in an installation, then the scope of IEEE-519 has been met.
- Additional potential benefits to the customer of reducing harmonic distortion may include increased equipment life, reduced power losses, improved equipment operation, reduced equipment down time and reduced equipment interference.
- Equipment required for compliance to this policy will be installed, owned and maintained by the customer.
- Equipment previously installed by the District for the purpose of compliance testing may be retained by the customer at no additional cost but will become the responsibility of the customer.
- Failure to comply with this policy may result in disconnection of service and/or a change in irrigation rate class to the No Control rate.

#### APPLICATIONS:

- It shall be the responsibility of the equipment supplier to recommend and/or provide the customer with the proper equipment to meet the requirements of this policy.
- Known causes for harmonic distortion include but are not limited to: power rectifiers, adjustable speed or variable frequency drives (both AC and DC), constant flow water pressure systems, switch-mode power supplies, uninterruptible power supplies and other devices that convert AC to DC, DC to DC, DC to AC or AC to AC.
- Common uses for this equipment includes but is not limited to: submersible water wells, corner tower or swing tower center pivot systems, cell phone towers,

telephone company equipment and radio or microwave communications equipment.

## **RESPONSIBILITY**:

The Customer Services Department shall be responsible for administration of this policy.

ADDITIONAL REFERRAL POLICIES: #100 Point of Delivery of Electric Service