

**MC COOK PUBLIC POWER DISTRICT**  
**McCook, Nebraska**

**BOARD POLICY NO. 410**

**SUBJECT**

Terms for Service for Electric Consumers

**POLICY**

The purpose of the McCook Public Power District is to make quality electric energy available to its consumers, at the lowest cost consistent with sound economic and reliability considerations. MPPD will serve electric energy to any person or persons within its boundaries on a feasible basis, providing application is made and an easement is obtained.

**RESPONSIBILITY**

General Manager

**PROCEDURE**

- A. New consumers will be required to sign a standard form of application for electric service and shall pay a meter deposit of \$250. We may accept a reference letter, from the previous utility with a positive response, in lieu of a meter deposit.

Consumer meter deposits will be refunded at the end of a twelve (12) month period provided the consumer has established a good payment record or has paid their final account in full. After 12 consecutive months of satisfactory, on time payments, the deposit refund will be applied to the consumer's account. In the event the service is discontinued during the period MPPD has a deposit on file and the consumer requests discontinuance of the service, the deposit will be applied to the final bill.

- B. New consumers, requiring a new service constructed, shall be required to pay the basic service charges and the line extension charge, if such extension of the District's facilities is required as set forth in the District's Line Extension Policy # 440.
- C. An easement of right-of-way shall be obtained with application for extending lines to prospective consumers and all easements required for route of line shall be secured by the District with the assistance of the consumer prior to staking of line or construction thereof.
- D. Irrigation
1. Consumers wishing to apply for service must apply in writing at the MPPD headquarters' office. No verbal applications will be accepted.

2. New irrigation services of 20 horsepower and above may be placed on load management control.
  - a. Services less than 20 horsepower may be placed on load management if the consumer agrees to pay for the relay. The relay will be furnished by the District and remain its property.
3. Contracts for new services shall be for a period of 15 years.
4. Adding any new consumers will be limited to MPPD's ability to do the work in a timely manner, to be determined by MPPD staff.
5. MPPD may install and maintain, at its expense, appropriate size secondary capacitors for all irrigation services 20 horsepower and above. The secondary capacitors will be classified as special equipment for recordkeeping.

## **POWER QUALITY**

### **A. Objective**

To provide a procedure for District evaluation of consumer equipment and its effect on power quality of other consumers.

### **B. Service Rules and Regulations**

#### **1. General**

Where the consumer's use of electrical service is intermittent or causes unusual fluctuations including but not limited to harmonics, flicker, voltage dips and/or spikes, phase imbalances, or other detrimental effects on the electrical and/or communications service supplies to other consumers of the District, the District reserves the right to require the consumer to furnish, install and maintain, at the consumer's expense, suitable corrective equipment which will limit such harmonics, fluctuations or disturbances in a reasonable manner. These harmonics, fluctuations, or disturbances shall not be excessive and or interfere with other consumers or the district's electric power system.

#### **2. Variable Frequency Drives**

It is the purpose of this section to protect the District's investment in automatic meter reading, load control, Scada and reliable power quality to its consumers and control the potential negative effects variable speed drives may cause to the District's power plant and also neighboring interconnected systems.

The District requires all consumers to notify the District of any installation of devices that control motor speed with frequency.

It is the consumer's responsibility to eliminate any interfering noise related to harmonics or other sources on the consumer's service that interfere with the above frequencies.

The District recommends that any type of device that uses frequency to control the motor speed be of the twelve pulse type or higher to eliminate harmonic distortion associated with these controllers.

The District will require that all devices that use frequency to control motor speed be equipped with a RFI (radio frequency interference) filter before being energized.

The District will require a harmonic filter on any device that uses frequency to control motor speed that is below twelve pulse design style and may require a filter on any device if the harmonics are causing any type of interference.

### 3. Motor Starting

A motor which starts infrequently (once per day or less) shall be evaluated to make certain the primary voltage drop during starting does not exceed 5%. Motors starting more frequently (more than once per day) may need to limit primary voltage drop during starting to less than 5%.

- a. Three-Phase Motors with Infrequent Starts – The maximum three-phase motor, using across the line starting that can be installed would be a nameplate rating of less than 75 HP, anything with a nameplate rating of 75 HP or greater requires some type of "Soft Start" to reduce the initial starting load.
- b. Single-Phase Motors with Infrequent Starts – The maximum single-phase motor, using across the line starting that can be installed without evaluation, is 15 HP. Motors driven from phase convertors or special soft start motors may be installed without evaluation as long as the installation is limited as shown below.
  - 1) Static Phase Conversion – individual motor limited to 20 HP.
  - 2) Rotary Phase Conversion – individual motor limited to 25 HP.
  - 3) Written Pole or Adjustable Speed Drives – individual motor limited to 30 HP.
- c. The District strives to keep all loads balanced on three phase lines. To continue this effort without hampering growth, all potential new single phase services will be looked at on an individual basis using the following criteria.
  - 1) Will the added load cause an imbalance to the District's lines.
  - 2) Will other Consumer's power quality be adversely affected.

### 4. Follow Up After Installation

In the event a motor is installed that is larger than the limits specified above and has not been evaluated by the District, or the motor was installed against the advice of the District, or the motor starts frequently or more often than the

frequency used by the District during evaluation:

- a. No action will be taken by the District unless a power quality problem is discovered.
- b. If the District or a consumer is unsatisfied with power quality relating to motor starting by another consumer, the District will attempt to work with the consumers involved to resolve the problem. This may require installation of consumer corrective equipment by the consumer causing degraded power quality.

C. Harmonics and Other Power Quality Detrimental Effects

These harmonics, fluctuations, or disturbances shall not be excessive and/or interfere with other consumers or the District's electric power system.

If the District or a consumer is unsatisfied with power quality relating to harmonics or any other power quality detrimental effect caused by equipment of another consumer, the District will attempt to work with the consumers involved to resolve the problem. This may include installation of consumer corrective equipment by the consumer causing degraded power quality.

D. Failure to correct

If the consumer fails to sufficiently correct equipment to eliminate power quality problems in a timely manner, the District may, after notice and an opportunity to discuss the disconnect with the District's Manager, disconnect the electric service until the equipment has been removed from service or modified.

This policy supersedes and cancels all Terms for Service to Prospective Consumers policies prior to this date.

Approved by the Board of Directors.

Date Adopted: October 10, 1961

Date Revised: September 18, 2012

Date Revised: October 21, 2014

Date Revised: May 19, 2015

Date Revised: August 21, 2018

Date Revised: October 20, 2020

Date Revised: March 21, 2023

Attest:   
Jim Ruggles-Secretary