

2025

Service Connection Requirements

METERING

Single Phase Service or Three Phase Service main metering will be supplied by PKM Electric Cooperative, Inc. Off-peak metering equipment is supplied by PKM but installed by the contractor.

THREE PHASE TRANSFORMERS

For three phase services, a grade level transformer (fees and charges apply) will be provided supplying 120/208 or 277/480 “wye” voltage. If 120/240 voltage is required, an “open delta” two phase service (two grade level transformers) will be considered but limited to 150HP capacity in most cases. As a requirement of our G&T Minnkota Power Cooperative a .95 power factor must be maintained. The cooperative may be penalized with added costs and fees by Minnkota Power Cooperative if this is not maintained

DISCONNECTS

If PKM only has metering at the transformer, PKM still requires a disconnect at every service or feeder so it can be de-energized during emergencies, repairs or for changes and additions to the customer’s wiring.

INSPECTION

As always, PKM will not energize a new service until an inspection certificate has been provided. Emailing it to info@pkmcoop.com is acceptable.

If you have questions about the information, please contact Danny Schmidt or Joe Marcotte at PKM Electric Cooperative, Inc.

ELECTRIC SERVICE FOR LARGE MOTOR LOADS

Any motor – single or three phase – **over 16 HP** needs “soft start” equipment to avoid voltage dips when the motor starts, according to Cooperative policy.

The customer will be required to pay the cost of any special equipment necessary to maintain the Cooperative’s service reliability and integrity. This may include voltage regulators, filters for “harmonics”, power factor correction and other devices.

PHASE CONVERTERS AND LARGE SINGLE-PHASE MOTORS

The following are general statements from PKM Electric Cooperative, Inc. consulting electrical engineers. Please discuss this information with your electrician and equipment supplier also. Our consultants recommend that you purchase from a supplier that has been in business for at least five years and that you look for a five-year warranty. As a requirement of our G&T Minnkota Power

Cooperative a .95 power factor must be maintained. The cooperative may be penalized with added costs and fees by Minnkota Power Cooperative if this is not maintained.

1. *STATIC PHASE CONVERTERS*

They are supplied by many suppliers, but they may not produce constant three phase power. They are less efficient, and motors can only run at 2/3 their rated horsepower.

2. *ROTARY PHASE CONVERTERS*

They produce steady three phase and are therefore more efficient for operating motors. Motors can be used to their full horsepower and if sized properly, a rotary phase converter can also provide “soft starting” for the motors.

3. *VARIABLE FREQUENCY DRIVES (VFD's)*

One VFD is required for each motor. They are more susceptible to an impure voltage source. A VFD or several VFD's may cause harmonic voltage distortion, which must be eliminated by filters at the customer's expense.

INFORMATION NEEDED TO ANALYZE LARGE MOTOR LOADS

1. Number and size of motors.
2. Manufacturer
3. NEMA code for the motor starting characteristics.
4. When the motor will be running, how often it will be started and stopped.
5. Your equipment supplier can help with the proper sizing of phase converters and VFD's. As a requirement of our G&T Minnkota Power Cooperative a .95 power factor must be maintained. The cooperative may be penalized with added costs and fees by Minnkota Power Cooperative if this is not maintained. If you have questions about the above information, please contact Danny Schmidt or Joe Marcotte at PKM Electric Cooperative, Inc

HOMESTEAD ACCOUNTS

Electrical service provided will require a contribution to construction equal to 75% of the estimated construction cost with service capacity up to 400 amps and transformer capacity not to exceed 100 KVA. Construction costs will be Cooperative's recent standard cost. Any costs will be required to be paid in full before construction commences, unless other payment satisfactory to the Cooperative is agreed upon.

Electrical service provided will require a **flat fee of \$1,500 plus contribution** to construction equal to seventy-five percent (75%) of the estimated construction cost with service capacity up to four hundred (400) amps and transformer capacity not to exceed one hundred sixty-seven (167) KVA.

- a. Construction costs will be the Cooperative's recent standard costs.
- b. Any costs required to be paid under this bulletin will be paid in full before construction commences, unless payment satisfactory to the Cooperative is agreed up

NON-HOMESTEAD ACCOUNTS

Electrical service provided to a member or perspective member of the Cooperative which does not come under the homestead policy shall be required to pay a **flat fee of \$2000 plus** contribution to construction equal to one hundred percent (100%) of the estimated cost of construction.

- a. Contributions to construction will be based upon the Cooperative's recent standard costs.
- b. **Transformer costs will be 50% unless service is related to rate code #2, 100% of all costs will be recovered including the cost of the transformer**
- c. Any costs required to be paid under this bulletin will be paid in full before construction commences, unless other payment satisfactory to the Cooperative is agreed upon.

MULTI-PHASE SERVICE

Electric service extended to a member or perspective member which by nature or member request requires multi-phase service shall require payment of a contribution to construction equal to 100% of the cost of construction. Contributions to construction will be based upon the Cooperative's recent standard costs. Any costs will be required to be paid in full before construction commences, unless other payment satisfactory to the Cooperative is agreed upon.

If it is determined that an extension of the multi-phase service will be of mutual benefit to the member and the Cooperative and its system capacity, reliability or if the construction is part of the current two-year work plan or part of the long-range engineering plan of the Cooperative, a pro-rata adjustment in the construction contribution may be made. The Operations Manager shall determine the pro-rata adjustment and if the member feels that he/she has been deprived of the provisions of this policy, he/she may appeal the decision to the Board of Directors. The decision of the Board of Directors will be final.

DISTRIBUTED GENERATION SYSTEMS

1. Members need to call and discuss projects ahead of construction. Members must log in and fill out the application and provide all documents at pkmcoop.com under Member Service, Distributed Generation and the NOVA Power Portal at the bottom of the page before you start. Application fee applies along with a flat fee of \$1800 which will be applied after during application process.
2. Once we receive the application and DG information, PKM will verify if changes are needed to the existing service. **The member is responsible for any costs incurred by the cooperative to upgrade service, metering and engineering study.**
3. All DG systems are connected to the load side of PKM's service disconnect.
4. A DG monthly fixed charge is applied to all KW above 3.5KW connected to the PKM system.
5. PKM's DG meters are bidirectional. One display is for usage, and one display is for the Net. These need to be set up ahead of installation.
6. We require a separate meter socket on the DG system so PKM can install a meter just to track what the DG system produces and usage, commissioning tests will be done when the system is complete and tested again in the future on a yearly basis.

