

**PIONEER ELECTRIC COOPERATIVE, INC.**  
**General Requirements for New or Upgraded Service**  
(to be used in conjunction with the appropriate wiring guide.)

1. The Cooperative should be notified before the installation of a new service entrance to determine the point of attachment for Cooperative lines.
2. No change in the size or location of an existing service entrance shall be made without first giving notice to the Cooperative.
3. Any upgrading or major renovating of any service entrance will have to meet the code requirements currently in effect. These requirements will include but not be limited to N.E.C., NESC and PEC specifications.
4. The Cooperative will furnish meter sockets for all permanent type installations. Temporary construction services, mobile homes, or any pole-mounted service are not considered permanent installations.
5. MINIMUM capacity requirements.
  - A 60-Amp, 3-wire, single-phase 120/240-volt service will be permitted on temporary construction type services, water pumps, barns, electric fences, meter poles not serving a mobile home, or others pre-approved by the Cooperative.
  - A 100-Amp, 3-wire, single-phase 120/240 volt is minimum size permitted on mobile homes, new or rewired residences.
6. All types and classes of service will be metered with equipment furnished and owned by the Cooperative.
7. The Cooperative will provide only one set of service wires for each meter. All entrance equipment and feeders past the initial connection point of the Cooperative's service lines shall be owned and maintained by the consumer.
8. There shall be a means of main disconnect immediately past the meter on the outside of the building. A maximum of six (6) disconnect switches shall be permitted in a distribution panel without a main disconnect switch to disconnect electricity to all distribution circuits.
9. Power panels are acceptable.
10. The attachment point to the service entrance for permanent type installations, for the Cooperative's overhead service lines, shall be a minimum of twelve feet six inches (12'-6") above finished grade when the service lines do not cross a driveway or an area frequently traveled by vehicles. When the service lines cross a driveway or a frequently traveled area, the minimum height shall be fifteen feet six inches (15'-6") above finished grade. The attachment point to the service entrance for mobile homes, or any pole-mounted service shall be a minimum of fifteen feet six inches (15'-6") above finished grade.
11. The location of the meter must be on the outside wall of the building accessible to a meter reader or other Cooperative employees. The mounting height will be 4'6" minimum – 5'6" maximum above finished grade.
12. Grounding requirements are specified on the wiring guide.
13. The Cooperative shall make a service inspection before connecting any new or rewired service. All items listed above and the requirements specified on the appropriate guide will be checked for compliance.

**SERVICE ENTRANCE CONDUCTOR SIZES**  
**FOR**  
**THREE-WIRE, SINGLE-PHASE DWELLING SERVICES**

This table is intended for use as a guide. All work shall conform to the current edition of the National Electrical Code, except that local codes and regulations having jurisdiction shall take precedence.

**Conductor Types and Sizes**  
**SE-USE-RH-RHH-RHW-THW-THWN-THHN-XHHW**

| Size Entrance | Copper Conductors           |                         | Aluminum Conductors         |                         | Grounding Conductors          |
|---------------|-----------------------------|-------------------------|-----------------------------|-------------------------|-------------------------------|
|               | Size of Insulated Conductor | Minimum Size of Neutral | Size of Insulated Conductor | Minimum Size of Neutral | Bare Copper Only Minimum Size |
| 100           | 2 - # 4                     | 1 - # 6                 | 2 - # 2                     | 1 - # 4                 | # 6 cu                        |
| 150           | 2 - # 1                     | 1 - # 3                 | 2 - # 2/0                   | 1 - # 1                 | # 4 cu                        |
| 200           | 2 - # 2/0                   | 1 - # 1                 | 2 - # 4/0                   | 1 - # 2/0               | # 4 cu                        |

The reduced neutral conductor size is not permitted for 120/240-volt three-wire single-phase services where there are no 240-volt loads.

**GROUNDING SPECIFICATIONS**

1. A 5/8" galvanized steel ground rod, a 5/8" copper clad steel ground rod or a 3/4" galvanized steel pipe will be driven into the ground to a depth of 8 feet at the point of service attachment.
2. The ground wire (see table above for size) will run continuously from the ground rod to the meter base or power panel neutral connector.
3. The ground wire will be attached to the ground rod with a connector designed and approved for that purpose.

**EQUIPMENT SPECIFICATIONS**

1. All material used on the outside of the customer's premises must be of noncorrosive material (rust proof).
2. All exterior equipment shall be approved for outdoor use (weather proof).
3. The service entrance equipment shall be solid-neutral, dead front type with the neutral bonded to the box frame.

**PIONEER ELECTRIC COOPERATIVE**  
**UNDERGROUND TYPE INSTALLATION**  
**METER SOCKET, SINGLE - PHASE**

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NOTES:

1. COOPERATIVE WILL DETERMINE POINT OF ATTACHMENT TO BUILDING.
2. MINIMUM AMPACITY 200 AMPERES.
3. LEAD PLUGS SHALL BE USED ON MASONRY TYPE CONSTRUCTION TO SECURE CONDUIT STRAPS.
4. THIS DIAGRAM IS INTENDED FOR USE AS A GUIDE. ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT EDITION OF THE NATIONAL ELECTRICAL CODE, EXCEPT THAT LOCAL CODES AND REGULATIONS HAVING JURISDICTION SHALL TAKE PRECEDENCE.
- \*5. THE SWITCH BOX MUST HAVE ONE MAIN DISCONNECT TO DISCONNECT ALL ELECTRICITY TO ALL DISTRIBUTION CIRCUITS.
- \*6. A MAXIMUM OF SIX (6) DISCONNECTS SHALL BE PERMITTED IN A DISTRIBUTION PANEL WITHOUT A MAIN DISCONNECT TO DISCONNECT ELECTRICITY TO ALL DISTRIBUTION CIRCUITS.
7. POWER PANELS ARE ACCEPTABLE.
8. FOR SERVICES LARGER THAN 200A, CONTACT THE COOPERATIVE FOR WIRING SPECIFICATIONS.

