

Service Requirements

General

Contact Idaho Power before beginning work on any new service.

All meter installations must meet current electrical code requirements and display the proper electrical permit.

To help prevent damage, always call **Dig-Line** for locations at least **2 business days** before digging, excavating, or driving a ground rod.

Dial **811** (Nationwide)

Service Voltages

Three Phase (3-Ø) 120/208 volts
 277/480 volts

3-Ø, 120/240 and 240/480 volt services are for maintenance only and are not available for new construction, except for some small applications that must be approved in advance by Idaho Power.

Meter Location

The meter and any associated equipment must be suitably located so that the installation and any future maintenance can be performed without undue inconvenience to the customer or Idaho Power.

The meter must be located in a reasonably protected area so that the risk of inadvertent damage is minimized.

The meter base, conduit, and any CT enclosure must be adequately supported on the outside of an exterior structure wall so that it will be readily accessible to Idaho Power. **Do not cover or enclose the meter.**

Meter Base Requirements

Refer to the *Meter Base Identification* document on the Idaho Power website.

Meter Poles

All poles for mounting metering equipment are provided, installed and owned by the Customer. They must be tall enough to provide adequate clearance above the finished grade or obstacles for the service conductor and drip loop.

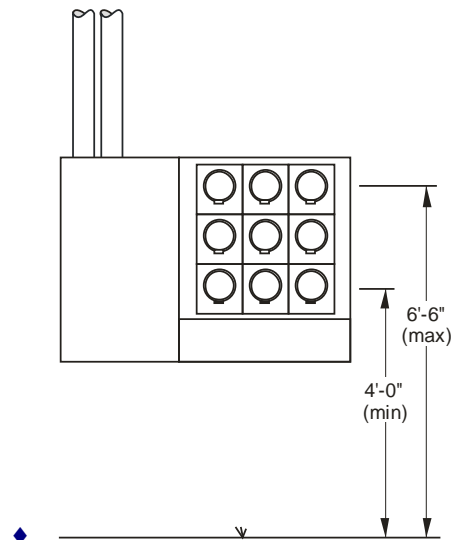
Each pole must have a minimum setting depth of **10% of the length of the pole plus 2'-6"**. Additional bracing must be installed if the tension of the service conductor will cause the pole to lean. A minimum Class 6, round, wood pole is required for permanent service.

See *Definitions* for Class 6 pole.

Meter Height

Permanent meters must be mounted between 4'-0" and 6'-0" (center of meter socket) above the finished grade or other accessible surface such as a deck or stairs, except as noted below:

- ◆ In areas with heavy snowfall, the minimum height for a meter is 5'-0.
- ◆ Multiple meter bases must be installed so that the highest meter is no more than 6'-6" above the finished grade.



Requirements for Three-Phase (3-Ø) Overhead Electric Service

Multiple Meters

The NEC generally requires a building or structure to be supplied by only one service (meter). Multiple meters of the same Rate Class are not allowed on a single structure at a single address. This requirement does not apply to multi-tenant structures such as duplexes, apartments complexes or strip malls.

Each meter base or service disconnect that is part of an installation with more than one meter is required to be plainly marked with numbers and/or letters that correspond to the address, suite, office, or room it serves. Marking shall be a permanent nameplate or placard (hand-written address information is not acceptable).

Meter Rooms for Multiple Meters

Multiple meter installations may be located in a meter room provided that all of the following criteria are met:

1. A plan for the meter room must be submitted to Idaho Power for approval before any wiring is done.
2. The meter room must be accessible to Idaho Power through an exterior metal door with a lock box. The door must be permanently labeled with the words "Electrical Room".
3. The meter room may only be used for electrical equipment and communication equipment that does not interfere with the electrical equipment. No storage of any kind will be allowed.
4. Lighting, drainage and health issues are the responsibility of the customer.

Clearances

Separation between Electric and Gas.

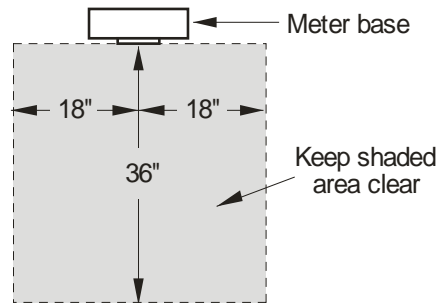
A gas meter must have a minimum horizontal separation of 36" from any electric meter, enclosure or equipment. Electrical conduit is not considered electrical equipment.

For **residential applications only**, this clearance can be reduced to 36" measured in any direction, except that the horizontal separation shall not be less than 18".

Propane Tanks. Any regulator, pressure relief valve, or fill connection associated with a propane tank or its delivery system must be at least 10' away from any source of ignition, which includes the electric meter.

NOTE. Propane tanks used for dispensing must be at least 20' from any source of ignition.

Working Space. Keep the 36" × 36" area directly in front of the meter base clear of any equipment, landscaping or other obstacles that could interfere with access to the meter.



Caution: Portable Generators

Do not connect a portable generator to a building's electrical wiring unless a transfer switch has been installed per NEC 702. The transfer switch prevents the generator from feeding back into the Idaho Power electrical system, exposing workers to unforeseeable hazards. The generator can also be damaged if the electrical system becomes energized while the generator is operating.

Service Masts

Use a minimum of 2" conduit for service masts. Masts that penetrate a roof must be rigid steel. EMT or Schedule 80 PVC may be used below a roof

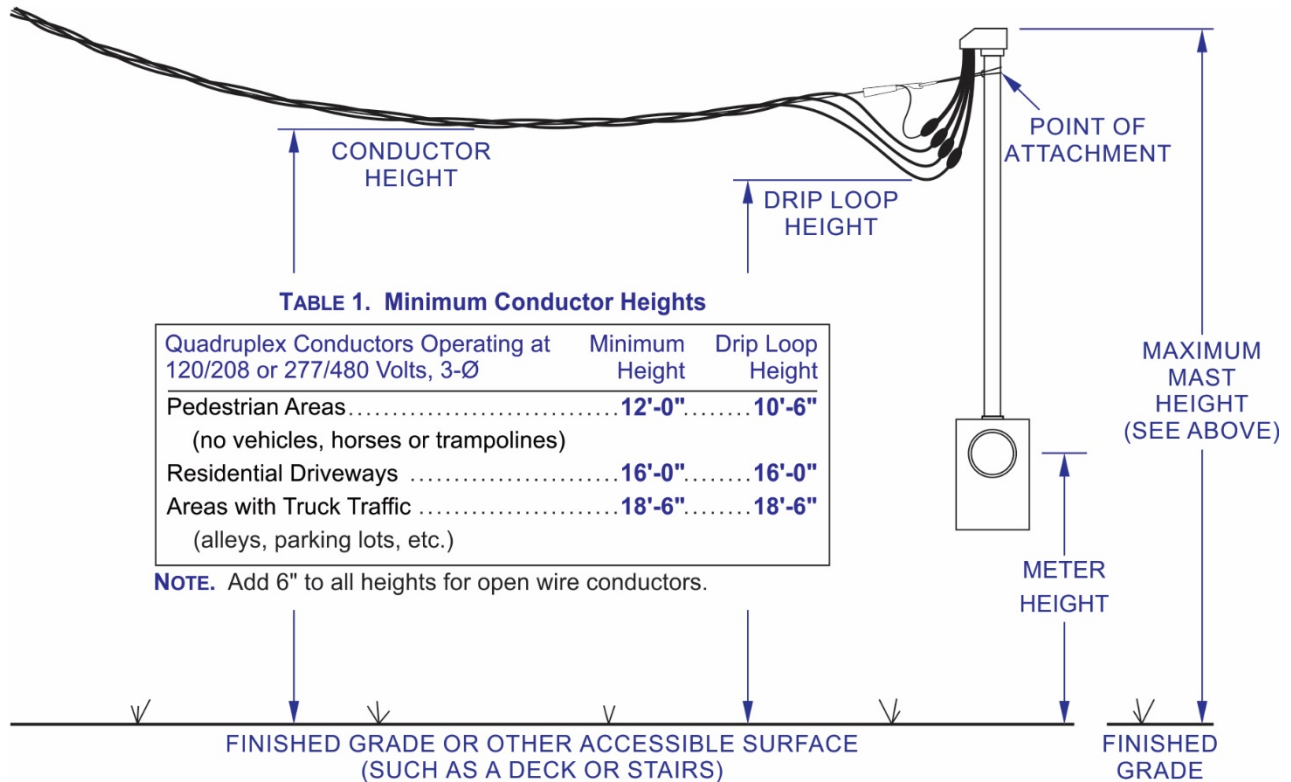
Requirements for Three-Phase (3-Ø) Overhead Electric Service

Heights for Overhead Services

Overhead services must meet the minimum clearance above the finished grade or other accessible surface as shown below. Make sure the point of attachment is high enough to meet these requirements.

Contact Idaho Power to determine the minimum conductor height requirement when the service wire must cross over areas that are not addressed here (such as a road, highway, railroad track, canal, waterway, etc.).

Maximum Mast Height. If the installation requires a mast height that exceeds 15'-0" above grade in pedestrian areas, or 18'-0" above residential driveways; contact Idaho Power prior to construction to verify that the service can be safely installed.



Requirements for Three-Phase (3-Ø) Overhead Electric Service

Services Over Building Roofs

A service conductor or the drip loop that crosses over the roof of a building must meet the minimum conductor height over the roof as shown in Table 1 *Minimum Conductor Heights*.

However, there are three exceptions where reduced clearances are permitted:

Exception 1. A service conductor (or the drip loop) up to 600 volts line-to-line that crosses over a non-accessible roof must have a clearance of 8'-0" over the roof.

A roof may be considered non-accessible if it is not accessible by a door, window, stairway, or fixed ladder.

Exception 2. A service conductor (or its drip loop) up to 300 volts line-to-line that crosses over a non-accessible roof with a slope of at least 4 to 12 must have a clearance of 3'-0" over the roof.

Exception 3 A service conductor (or its drip loop) up to 300 volts line-to-line that crosses only the eave portion of the roof where it reaches the service mast must have an 18" clearance over the roof. The service mast must not be more than 4'-0" from the edge of the roof and only 6'-0" of the service conductor may be above the roof as shown below.

Maximum Mast Height. If the installation requires a mast height that exceeds 6'-0" above a roof, or the roof height exceeds 10'-0" above grade (without bucket truck access); contact Idaho Power prior to construction to verify that the service can be safely installed.

Bracing. Bracing is required for masts that exceed 30" above a roof, or where the service span exceeds the length shown in Table 2.

TABLE 2: SPAN LENGTHS (3Ø)

Service Size	Max. Span
200A and less.....	80'
201 - 400A.....	60'
Larger than 400A*	40'

*Contact Idaho Power for requirements.

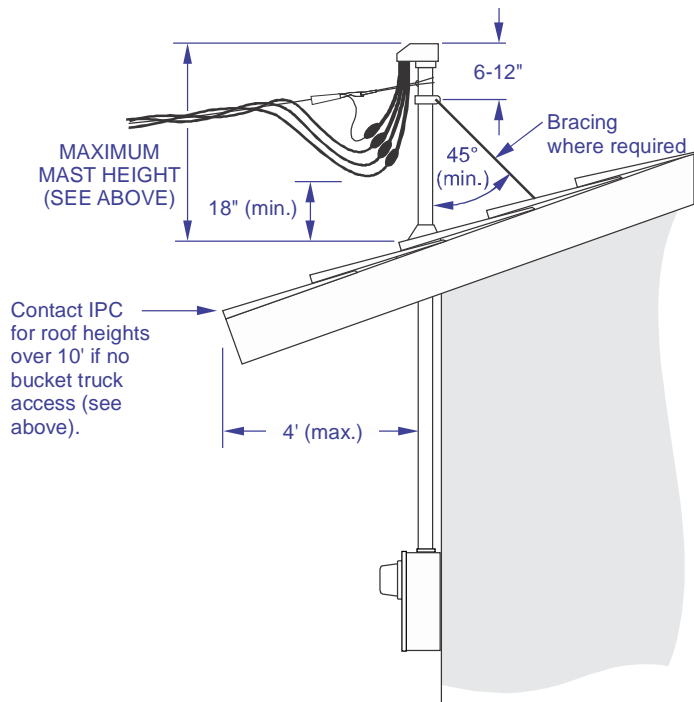
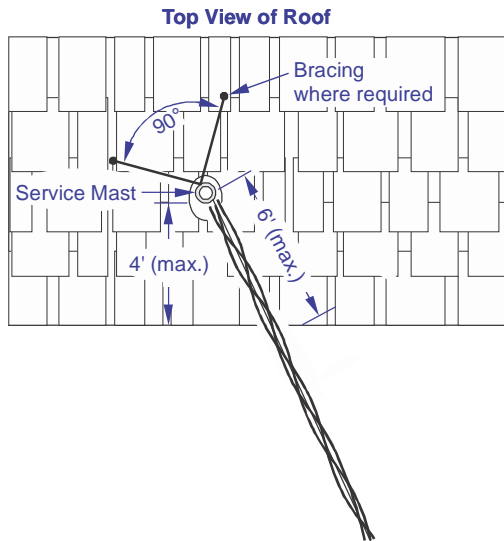
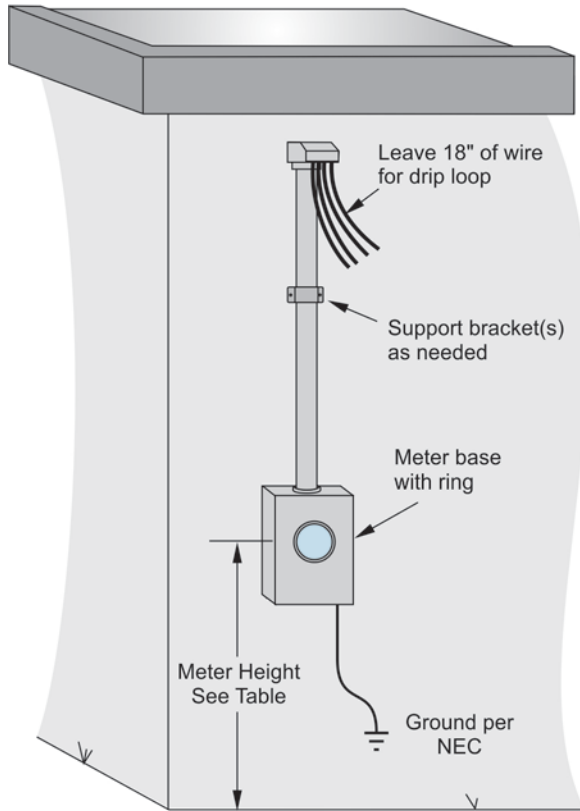


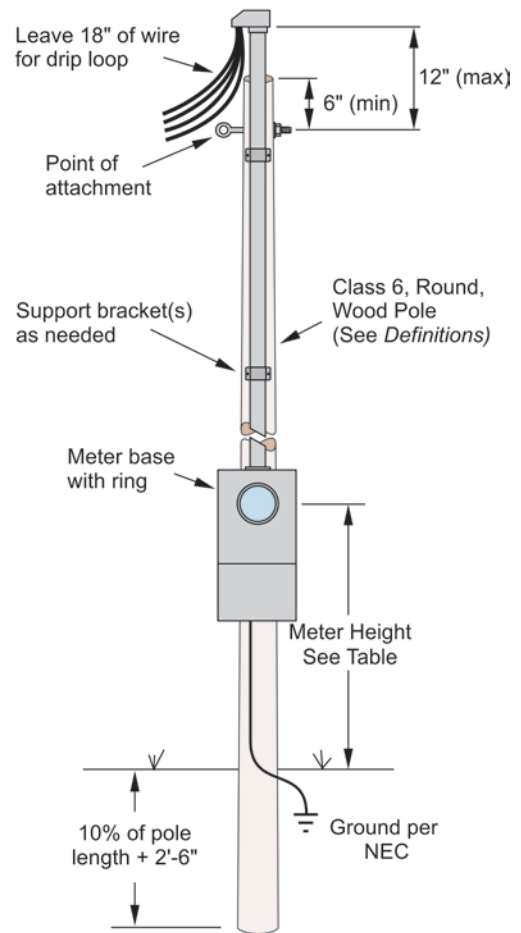
Illustration of Exception 3

Requirements for Three-Phase (3-Ø) Overhead Electric Service

3-Ø Overhead Service to a Building



3-Ø Overhead Service to a Pole



Idaho Power Provides

Meter
Service conductor
Connections at the drip loop

Customer Provides

Pole or building to attach the meter base
Point of attachment
Meter base
Conductor from the meter base to the drip loop
Ground electrode(s), ground wire and connections to ground the meter base per NEC

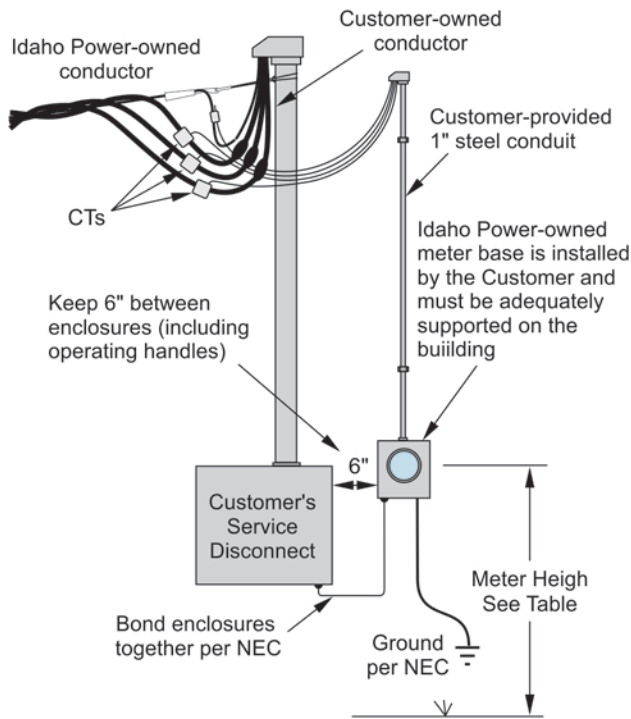
Meter Height (to center of meter)

Preferred (all areas): 5'-6"
Maximum (all areas): 6'-0"
Minimum (most areas): 4'-0"
Minimum (heavy snow areas): 5'-0"

NOTE. The service mast must be adequately supported so that it does not bend, lean, or pull loose due to the tension of the service wire. Larger service wires or services in high snow areas may require additional support.

Requirements for Three-Phase (3-Ø) Overhead Electric Service

3-Ø Overhead CT Service to a Building



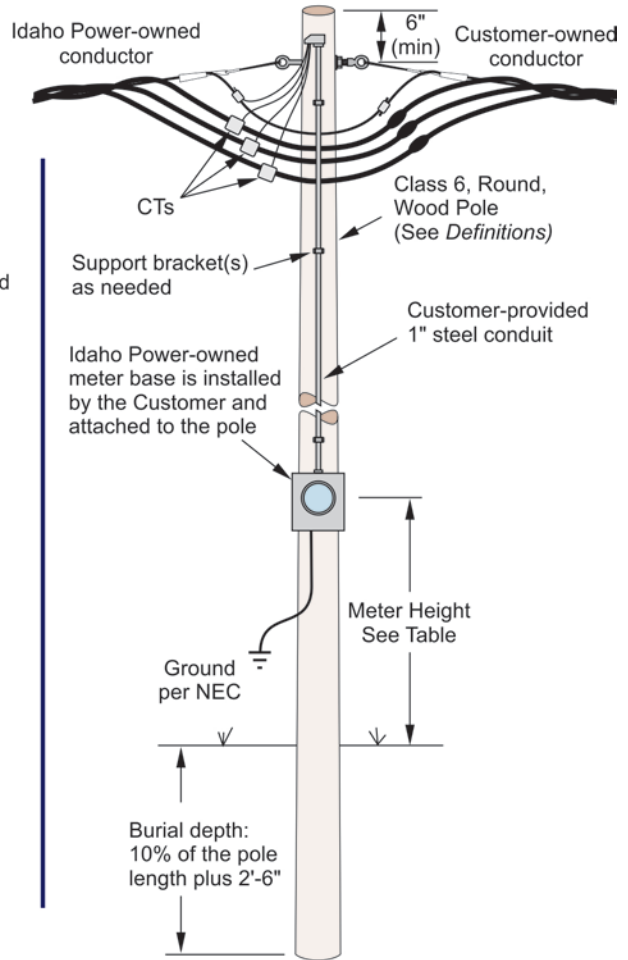
Meter Height (to center of meter)

Preferred (all areas):	5'-6"
Maximum (all areas):	6'-0"
Minimum (most areas):	4'-0"
Minimum (heavy snow areas):	5'-0"

Idaho Power Provides

- Meter base
- Meter and CTs
- Metering wires
- Service conductor
- Connections at the drip loop

3-Ø Overhead CT Service to a Pole



Customer Provides

- Pole, structure, or building to attach the meter base
- Point of attachment
- Installation of the meter base
- 1" EMT conduit and entrance cap
- Conductor from the customer's service disconnect to the drip loop
- Ground electrode(s), ground wire and connections to ground the meter base per NEC

NOTES.

- 1) The service mast must be adequately supported so that it does not bend, lean, or pull loose due to the tension of the service wire. Larger service wires or services in high snow areas may require additional support.
- 2) There is an additional charge for CT metering when the customer's main breaker or panel size is 200 amps or less.

Requirements for Three-Phase (3-Ø) Overhead Electric Service

Maximum Available Fault Current

All 3-Ø Services: Contact Idaho Power to obtain the maximum available fault current.