

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)

Burial Depth

A 30" minimum burial depth is required for cables up to 750 volts line-to-line. Contact Idaho Power if this depth cannot be achieved.

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.

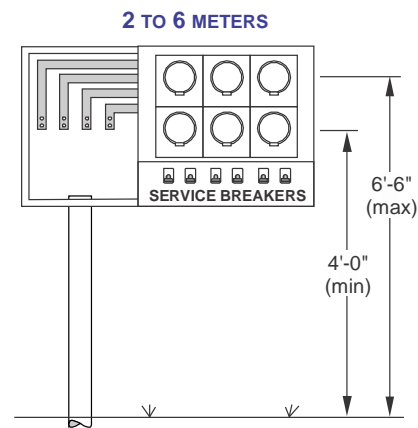
The meter must be located in a reasonably protected area so that the risk of inadvertent damage is minimized.

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 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.



Meter Base Requirements

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

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).

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

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.

Sealing for Moisture and Gas on Underground Services

Each meter base that is connected to an underground service where the service cables are installed in conduit must have all opening(s) between the meter base and the interior of a building permanently sealed to prevent any liquids or vapors from passing into the building. See NEC 230.8, *Raceway Seal*.

Clearances

Separation between Electric and Gas.

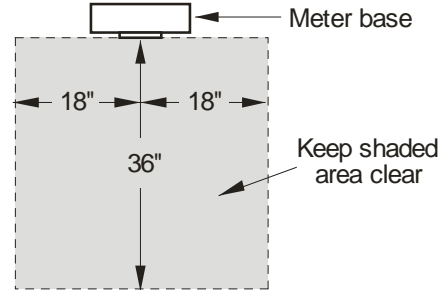
A gas meter must have a minimum horizontal separation of 36" from any electric meter, enclosure or equipment. Electrical conduit is not considered electrical equipment.

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.

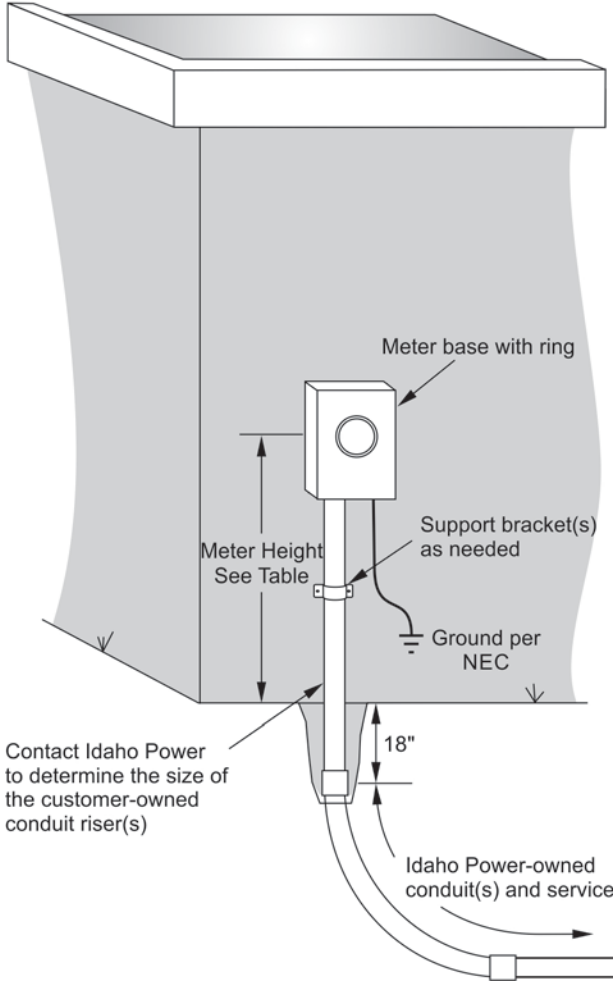
Who Provides the Connectors?

Generally, the owner of the enclosure or equipment will provide the electrical connectors (lugs or terminals) within that piece of equipment necessary to connect the electrical cables, regardless of who owns the cables. The number, size, and type of cables must be known so that the proper lugs or terminals can be provided.

For example, Idaho Power will connect its service cable to the customer's equipment, such as a meter base or CT enclosure, using the customer-provided connectors.

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

Idaho Power-owned 3-Ø Underground 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
Service wires and conduit
Connects the service wires at the meter base

Customer Provides

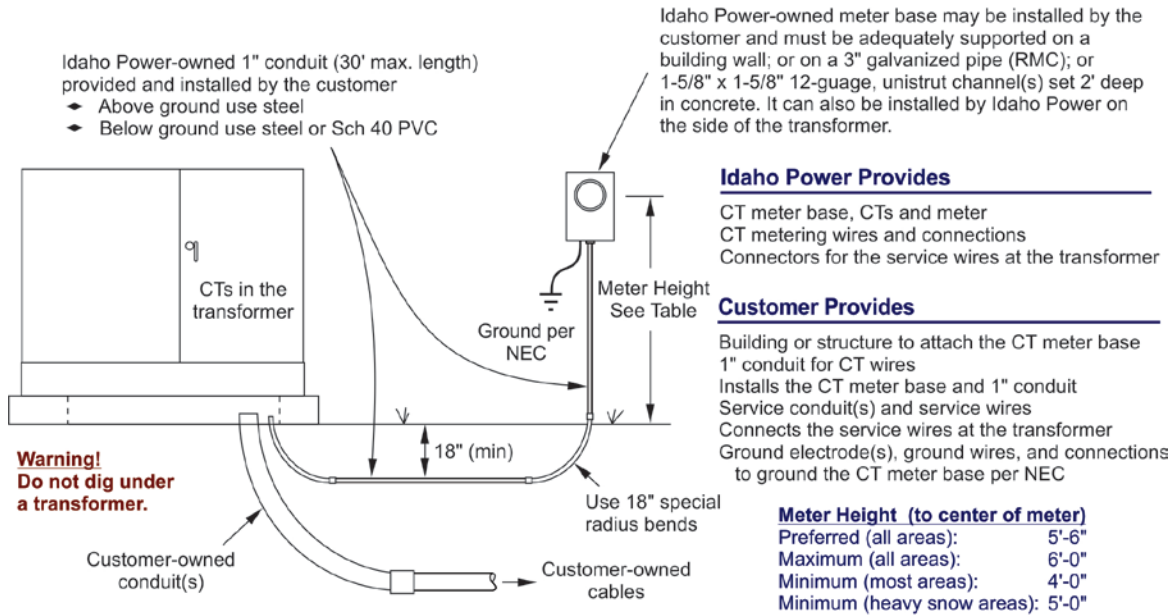
Meter base
Connectors for the service wires at the meter base
Conduit riser from the meter base to 18" below ground
Ground electrode(s), ground wires, and connections to ground the meter base per NEC

Contact Idaho Power to determine the size of the customer-owned conduit riser(s)

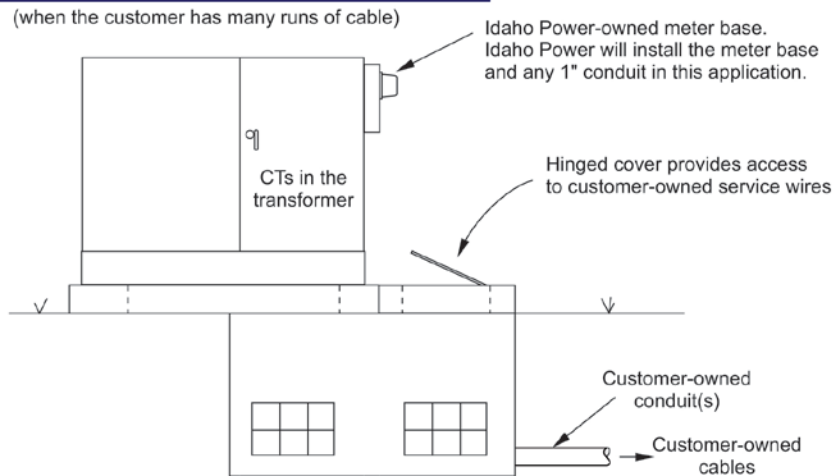
To Idaho Power's transformer

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

Customer-owned 3-Ø Underground CT Service



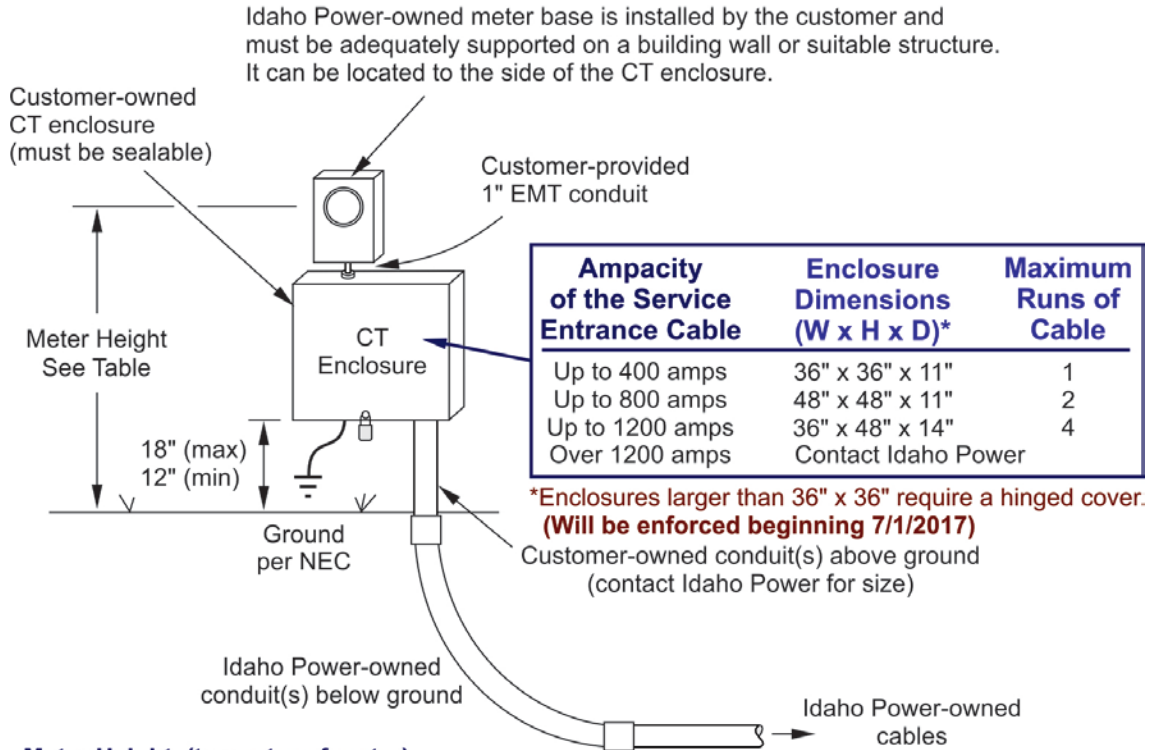
Typical Design with a Basement under the Transformer



NOTE. 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) Underground Electric Service

Idaho Power-owned 3-Ø Underground CT Service



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

CT meter base, CTs and meter
CT metering wires and connections
Service wires and conduit(s)
Connects the service wires in the CT enclosure

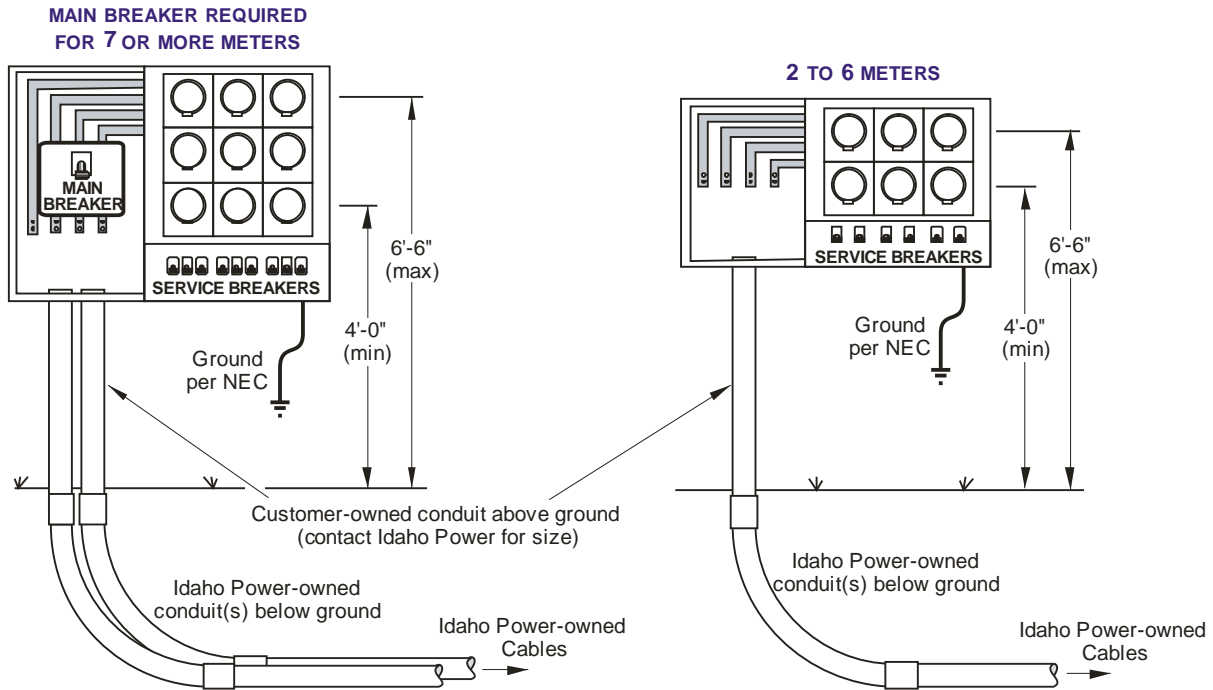
Customer Provides

Building or structure to attach the CT enclosures and CT meter base
CT enclosure (must meet IPCo specifications)
1" EMT conduit for the CT wires
Installation of the CT meter base and 1" EMT conduit
Connectors for the service wires at the CT enclosure

NOTE. 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) Underground Electric Service

Idaho Power-owned 3-Ø Underground Service to Multiple Meters



Idaho Power Provides

- Meters
- Service cables and conduit(s) below ground line
- Connects the service cables at the bus or main breaker

Customer Provides

- Meter base and main breaker (if needed)
- IMPORTANT NOTE** The connection point for Idaho Power's service cables must be on terminals that extend away from the main breaker
- Connectors for the service wires at the bus or main breaker
- Conduit from the meter base to ground line
- Ground electrode(s), ground wires and connections to ground the meter base per NEC

Maximum Available Fault Current

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