

Electric Service Handbook

Single-Family
Residential
Services



Central Lincoln People's Utility District



OVERVIEW OF HOOK-UP PROCEDURES

The following is a general outline of how you get a new electrical service for a single-family residential structure. This outline assumes that Central Lincoln PUD (CLPUD) has existing power facilities to your site. If power is not readily available, CLPUD will need to engineer your project. If you have any questions, please contact your nearest service office (*see page 21*).

Your Responsibilities to Obtain Temporary Service

- _____ **1.** Determine if you want overhead or underground temporary service (*see page 3*).
- _____ **2.** Contact your nearest CLPUD service office (*see page 21*) for service application and service location.
- _____ **3.** Install the appropriate temporary meter base.
- _____ **4.** Obtain an electrical inspection (*see page 4*) or licensed supervising electrician letter, and verify service location.
- _____ **5.** Call CLPUD after you have passed your electrical inspection, or received your letter.

Your Responsibilities to Obtain Permanent Service

- _____ **1.** Determine if you want overhead or underground permanent service (*see page 3*).
- _____ **2.** Determine the size of service you want [200 amp, 400 amp or greater] (*see pages 4 & 5*).
- _____ **3.** Contact your nearest CLPUD service office (*see page 21*) for service application and service location.
- _____ **4.** Notify other utilities of your project (*see page 4*).
- _____ **5.** Install your service entrance equipment.
- _____ **6.** Call the “One Call” system **before** you dig at **1-800-332-2344** (*see page 5*).
- _____ **7.** Provide a clear path/trench for your service line (*see pages 6 and 10*).
- _____ **8.** Obtain an electrical inspection (*see page 4*).
- _____ **9.** Call CLPUD after you have passed your electrical inspection.

Central Lincoln PUD’s Responsibilities

- _____ **1.** Install your service line, meter and connect to your weatherhead or service hand-hole.
- _____ **2.** Energize your system.

Scheduling

If only a service wire and meter installation are required, services are typically energized 3-5 days after you have completed the appropriate “Your Responsibilities” section above. If additional work is required, it may take longer.

Service Charges

Charges vary due to the type of service you are requesting and the type of system we have in your area. Contact our local engineering office for current rate information (*see page 21*).



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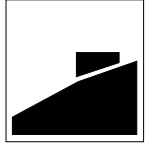
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INTRODUCTION



WELCOME TO CENTRAL LINCOLN PUD

This handbook provides you with Central Lincoln PUD's requirements for new or altered electric service for permanent and temporary single-family residential structures. Also included in the handbook is some helpful information from the National Electric Code (NEC) and the requirements for service to outbuildings such as barns, shops, pump-houses, garages, etc.

The handbook contains information that will help you to answer questions like:

- How do I install a temporary meter base?
- How do I install a permanent meter base?
- Where should I install the meter base?
- Where will the service route be?
- How tall does my service mast have to be?
- What are the size requirements for the meter base?
- What do I have to do to get an underground service?
- How do I install my meter base?
- How do I get the existing underground utilities located before I dig?

The answers to these and many other questions are here. If you have any additional questions, please call your nearest service office. You'll find a directory of these offices on page 21.

Information regarding the installation of permanent, multifamily and nonresidential services such as commercial buildings, condominium complexes, apartment buildings, and mobile home parks is available in CLPUD's *Electric Service Handbook for Nonresidential Services*. Both of these handbooks are available free of charge from any CLPUD service office.

If you have any general questions regarding billing, if you want to establish service, or if you're ready to have your service hooked up, call your local CLPUD service office. (See page 21.)

GETTING STARTED

Installing a temporary service and/or permanent service to your home is a joint project between you and Central Lincoln PUD. CLPUD is responsible for installing the service lines to bring power to your residence, and for installing the meter in your meter base.

You are responsible for:

- Determining if you want overhead or underground service.
- The installation of your temporary and permanent meter base.
- All electrical wiring in your residence.
- All electrical wiring from your meter base to our

point of connection.

- Obtaining permits and inspections.
- Maintaining your equipment.
- Keeping your meter base visible and accessible.
- Providing and maintaining a clear path/trench for your service line.
- Providing and maintaining conduit for any underground service line.

The first thing you should do is contact our service office. Once this is done you're ready to begin. The remainder of this handbook will help you with this process.

BEGINNING YOUR CUSTOMER REQUEST FOR SERVICE

Before CLPUD can begin working on your project, a Customer Request For Service must be established. Please contact our nearest service office (see page 21) to start the request. A representative will also request billing information. For customers new to the District, an application card will need to be completed. Currently there is a processing fee to establish a new account. This fee will be included on your first service bill.

TEMPORARY VS. PERMANENT POWER

Temporary power is generally used for the construction phase of your building project. The details for installing temporary power are in Chapter 2.

Permanent power is provided after your structure is built and meets all the requirements stated in Chapters 3 - 5.

OVERHEAD OR UNDERGROUND SERVICE

The two types of electrical service from CLPUD are overhead or underground. Underground service is available to everyone. Overhead service is available if CLPUD's system is overhead, and if your local ordinances allow it. It is your responsibility to be aware of your local ordinances.

You can determine if CLPUD's system is overhead or underground by checking for our facilities along the road. If the power system is overhead, a series of poles similar to Figure 1 will be visible. If the power system is underground, you'll see items like those in Figure 2 (see next page).

If CLPUD's system is overhead, and you wish to have an overhead service installed, the requirements for overhead services can be found in Chapter 3 of this handbook.

If CLPUD's system is overhead, but you wish

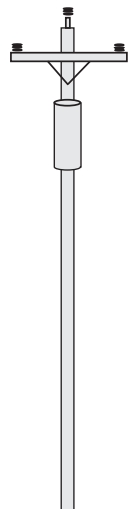


Figure 1.
Pole with transformer.

to have an underground service, those requirements can be found in Chapter 4.

If CLPUD’s system is underground, your only option is an underground service. Refer to Chapter 4 for those requirements.

For additional help in determining which type of system is in your area, call your nearest service office (see page 21) and ask to speak to an engineering technician.

REQUESTING SERVICE

Before CLPUD installs your new service you must contact us and begin a *Customer Request for Service*. That request provides CLPUD’s field personnel with the information they need to install your permanent service.

When you call to order your temporary or permanent service, a representative will ask you the following critical questions. Please be prepared to answer them, as your answers will help determine how your project is handled.

- *What is this service for (home, barn, shop, etc.)?*
- *How many square feet in your residence?*
- *Will you have electric heat or gas?*
- *Will you have a heat pump, furnace or zonal heating?*
- *Will you have gas or electric water heat?*
- *What amperage rating is required for your service?*
- *When will you be ready for service?*
- *Would you like overhead or underground service?*

SITE SPECIFIC CONCERNS

After you have requested service, your customer engineering technician will set up an appointment with you at the site. The technician will ask you some of the following questions:

- *Is type of service requested (overhead/underground), allowed by your local ordinances and covenants?*

If CLPUD’s system is overhead and you want overhead service:

- *Is your new meter location less than 100 feet from our nearest pole?*
- *Does the pole have a transformer on it? (See Figure 1).*
- *Will your service line cross anyone else’s property?*

If CLPUD’s system is overhead and you want underground service:

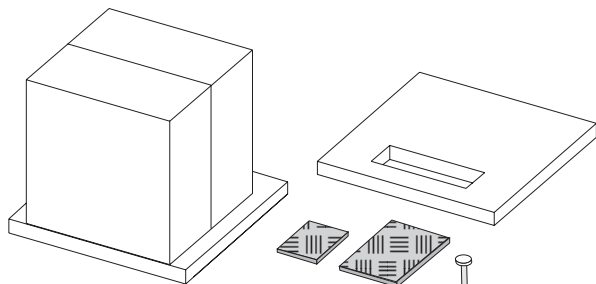


Figure 2. Padmount transformer, concrete pad, secondary hand-hole lid, locator pin.

- *Is your new meter location less than 200 feet from our nearest pole?*
 - *Does the pole have a transformer on it? (See Figure 1).*
- If CLPUD’s system is underground (we offer only underground service in this case):

- *Is your new meter location less than 200 feet from the nearest transformer or hand hole? (See Figure 2).*

INSPECTIONS AND CODES

This handbook should be used as a guide. It does not cover all possible federal, state, or local code requirements. It is your responsibility to ensure that your project complies with the most recent issue of the National Electric Code (NEC) and any other federal, state, or local codes that may apply.

Once your service equipment is installed, the state requires that your service equipment installation pass an electrical inspection before we connect you to our system. Electrical inspections are performed by different agencies, depending on your location. See below for your local electrical inspection agency.

| ELECTRICAL INSPECTION AGENCY | | |
|-------------------------------------|--|---------------|
| Area | Office | Phone# |
| Lincoln County | Lincoln County Planning Dept. (Electrical) | 541-265-4195 |
| Newport | Newport City Hall | 541-574-6027 |
| Lane County | Lane County Facilities Dept. | 541-997-2251 |
| Florence | Florence City Hall | 541-997-8237 |
| Douglas County | State Building Codes Division | 541-684-3594 |
| Coos County | State Building Codes Division | 541-396-2148 |
| Lakeside | Lakeside City Hall | 541-759-3011 |
| Reedsport | Reedsport City Hall | 541-271-3606 |

CONTACTING OTHER UTILITIES

New construction typically involves the installation of water, sewer, telephone cables, cable television cables and natural gas lines, as well as power cables.

It is your responsibility to notify each of the utilities that you wish to provide service to your home. You should get the name and phone number for a contact at each utility and let each of them know which other utilities will be providing you service. Check your local phone book for their numbers.

SERVICE RATINGS AVAILABLE

CLPUD offers several sizes of services for single family residential structures, and for outbuildings. (See “Outbuildings” on next page.)

The size of service you need depends upon the size of your home, and the power requirements of the equipment you

will be installing in it. CLPUD cannot determine your power requirements.

| Voltage | Amp Rating | Typical Use |
|---------|---------------|--|
| 120/240 | 200 Amp* | Small and Medium sized Homes (most common) |
| 120/240 | 400 Amp | Large homes |
| 120/240 | Over 400 Amps | Very large homes |

*You may install a service panel or meter base that is rated less than 200 amps, but the service line and meter that CLPUD installs will be sized as if you were installing a 200 amp service. If you are installing an underground service that is less than 200 amps, your meter base must meet the dimensional requirements for a 200 amp underground meter base (see page 17).

METER LOCATION

You are required to install your meter base in a place that is accessible to CLPUD. All locations are subject to approval by a CLPUD representative. If you have questions regarding meter location, call our nearest service office (see page 21).

Requirements for properly locating your meter base are:

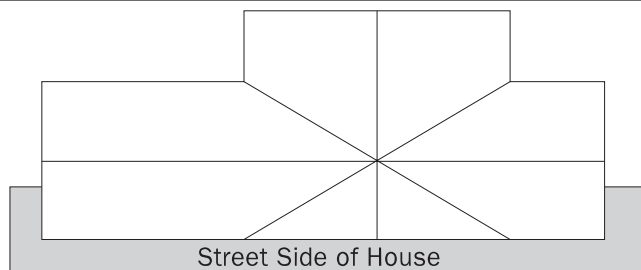
- It must be outside.
- It must be located on the front, or within 4' of the side of your home closest to normal public access.
- It must be in an area that is not likely to be fenced (such as patio, deck, porch, back yard, etc.).
- It must be located on a structure that is owned by you and be 5 to 6 feet above finished ground level, unless on underground pedestal. Then it must be 3-6 feet above finished ground level.

The reasons for these requirements are:

- So CLPUD's meter readers can read your meter in a safe and cost-effective manner.
- So CLPUD can efficiently maintain the meter.
- So employees can stay out of your back yard.
- If you have a fire, we can disconnect your service.

Due to the corrosive climate along the Oregon coast, we recommend that you use a corrosion-resistant meter base that is state-approved.

For conventional homes, the meter base should be placed on the street-side exterior of the house, or a **maximum** of four feet around the corner from that wall (See shaded area in Figure 3).



PUD Service Lines or Vehicular Traffic

REMOVING AND INSTALLING METERS

Only authorized and qualified CLPUD personnel shall remove and install meters. In special circumstances, exceptions may be granted to qualified electrical contractors by contacting CLPUD's meter department or customer service department and receiving approval. With some types of meter bases, removal of the meter does not de-energize the customer's system.

UNDERGROUND LOCATES

If you are doing any trenching or excavation work, you are required to call for underground utility locates two working days before you do any digging.

You can get underground utility locates by calling the "One Call" system at **1-800-332-2344**. Once you have called and requested a locate, the one call system will notify the utilities, or a locating service, that locates are required.

There is no charge for this service. Utilities are required by state law to belong to this service.

The state has established a color code system to identify each utility so everyone can see what has been located. The color codes are:

| Color | Utility |
|--------|--------------------|
| Red | Electric |
| Yellow | Gas/Oil |
| Orange | Telephone/Cable TV |
| Blue | Water |
| Green | Sewer |
| White | Area to be located |

The state requires that any digging within 24 inches of either side of the location markings be done by hand.

OUTBUILDINGS (ANCILLARY SERVICE)

An outbuilding or ancillary service is a stand-alone structure which is located on residential property and is not a living space. Typically outbuildings are barns, pump-houses, garages, shops, storage sheds, etc.

If you wish to install a separate service to your outbuilding, you are required to provide a clear path for overhead, or trench and conduit for underground to our equipment as required by the NEC, NESC and CLPUD. If the meter base you install is for a class 320 meter, you are required to have manual bypass blocks (see Figure 26, page 19).

The CLPUD will install the service line to the point of attachment if it is for general residential use (i.e. garages, shops, small barns).

For services over 125 feet from existing CLPUD facilities, or if there is any additional work (other than the service line) the customer will incur all additional costs.

Figure 3.
Meter location on house.