Items to consider

♦ The maximum length of the service wire from the ComEd pole to the point of attachment on your residence is 150 feet, if practical.

♦ Your service wire installation must be positioned so that it may be reached safely from a ladder positioned on solid ground.

♦ See page 26 for clearances. If your plans don’t meet the minimums, see pages 20-25 for ways to gain additional height.
Item to consider:

Notify ComEd as soon as possible to allow lead time to meet your requirements.

Charges will apply. Your ComEd representative will provide actual costs based on your requirements.
Glossary of Terms
Electric Service Entrance Equipment

1. **Overhead service wire** – the wire from the pole that attaches to the house.

2. **Service wire attachment** – a metal plate or bolt that supports the service wire to the building. You may elect to install a riser or roof plate to maintain minimum clearances for the service wire.

3. **Service head** – a weather-tight fitting attached to the end of the service run to prevent water from entering the pipe.

4. **Service run** – the wires installed between the service head and the meter fitting.

5. **Meter** – a device that measures the amount of electricity used by a customer.

6. **Meter fitting** – a device that the meter plugs into.

7. **Service entrance** – the wires installed between the meter fitting connection device and the disconnecting means.

8. **Disconnecting means** – the main breaker, fuse box or breaker panel inside your home.

9. **Water pipe ground** – a safety connection to provide an electrical path to ground.

10. **Driven ground** – a safety connection to provide an electrical path to earth.

**Note:**

For clearances see pages 26-28.

For grounding reference see page 47.

Check local codes for requirements.
**Overhead Metering**

**Self-Contained Meter Fitting**

**Single Phase, Three-Wire 120/240 or 120/208 Volts**

**Customer furnishes, installs and maintains:**

1. Meter fitting (200 amperes maximum)
2. Conduit and conductors of service run (line)
3. Conduit and conductors of service run (load)
4. Ground connection per local code
5. Insulated metallic bushing on line and load conduits
6. Neutral terminal
7. Fifth terminal with potential tap (#12 copper wire or equivalent) from neutral terminal (120/208 volt service only)
8. Horn type bypass (so the service will not be interrupted when a meter is removed from the socket)

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**Underground Service**

**Customer’s Cable Pole**

**Customer’s Cable Pole With Underground Secondary Service Connection**

**Customer furnishes, installs and maintains:**

1. Treated pole (Minimum requirements: Class #7, length 25 ft.). Customer shall consult ComEd for minimum setting depth for the class and length of pole installed.
2. Galvanized rigid metal conduit
3. Conduit bushing (if buried portion of cable is not in duct)
4. Galvanized conduit straps and/or lag screws as required

**Installation of Customer’s Cable Pole and Underground Secondary Service Connection**

**Customer furnishes, installs and maintains:**

5. Ground rod, conductor and clamps for grounding metallic conduit on pole
6. Outdoor adapter coupling for metallic to non-metallic conduit (Conduit bushing to be installed if “U” guard is used above first 10 ft. section)
7. Non-metallic rigid conduit or “U” guard
8. Cable support
9. Cable in conduit. Cable to extend beyond conduit with enough extra to make connections on pole
10. Sealing compound
11. CECHA Meter fitting
12. Fork bolt

**ComEd furnishes, installs and maintains:**

13. Service drop dead-end
14. Connectors for connecting customer cable
15. Service drop cable
16. Meter

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**Note:**

Only meter connection devices labeled by the manufacturer with the letters “CECHA” are approved for use in the ComEd service area.
Overhead Metering
Self-Contained Outdoor Class 320

Single Position Meter Fitting
Single-Phase, Three-Wire 120/240 Volts

Customer furnishes, installs and maintains:

1. Meter connection device with lever actuated bypass (320 amperes maximum)
2. Conduit and conductors (line)
3. Conduit and conductors (load)
4. Ground connection per local code
5. Insulated metallic bushing on line and load conduits
6. Compression lugs for line and load conductors
7. Neutral terminal
8. Bypass arm

(Not available for 120/208 Volts Service)
**Overhead Service Attachment**

**Fork Bolt**

| 1 | Combination meter fitting, raceway and pedestal (200 amperes maximum) |
| 2 | Meter connection device |
| 3 | Enclosure for disconnecting device and receptacles |
| 4 | Block for terminating secondary service cables |
| 5 | Conductors or bus extending from terminating block to meter socket line terminals |
| 6 | Stabilizer foot (#10 gauge metal) or 9 in. x 12 in. x 15 in. concrete anchor |
| 7 | Ground connection, per local code |

| 8 | **ComEd usually furnishes, installs and maintains:** |
| 9 | Underground secondary service cables with compression lug connectors. Slack in cables of at least 12 in. must be provided |

| 10 | **ComEd furnishes, installs and maintains:** |
| 11 | Meter |

**Note:**

Raceway also available with factory installed main circuit breaker. For overhead to underground installation, ComEd will supply cable protection on pole at customer’s expense. Meter fittings must be CECHA approved.
Underground Metering
Meter Connection for Mobile Home

Overhead Service Attachment
Fork Bolt and I-Plate

Customer furnishes, installs and maintains:
1. Service head
2. Service run
3. Service run wires
   (allow a minimum of 18 in. beyond the service head to make connections to service drop wires)
4. Service attachment

ComEd furnishes, installs and maintains:
5. Service drop dead-end
6. Connectors for connecting customer wires to service drop

For an existing structure where it is impractical to install a fork bolt, the customer should install an I-plate.
7. I-plate
8. Customer to securely install I-plate
9. Service wire

10. A 4 in. to 18 in. clearance (in any direction) must be maintained between the service head and the center of the service attachment.

Note:
Under no circumstances shall a service attachment be made to a parapet or a chimney. The service head and attachment shall be located so that:

a.) The exposed wires will adequately clear all building components including downspouts, gutters, etc., and
b.) The wires will be out of reach from windows, porches, or any other parts of the building that are accessible to the occupants or the public.
Overhead Service Attachment
Roof Plate

Underground Metering
Class 320 Meter Fitting and Raceway

Single-Phase, Three-Wire 120/240
400 Amps maximum rating

Customer furnishes, installs and maintains:

1. Combination meter fitting and raceway with lever-actuated bypass
2. Compression lug connectors for load conductors
3. Neutral terminal
4. Ground connection, per local code

ComEd usually furnishes, installs and maintains:

3. Underground secondary service cables with compression lug connectors. Slack in cables of at least 12 in. must be provided

ComEd furnishes, installs and maintains:

4. Meter

Note:

*See pages 39 and 43 for some exceptions.

Raceway also available with factory installed main circuit breaker.

Meter fittings must be CECHA approved.
**Underground Metering**  
*Class 320 Meter Fitting and Raceway*

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![Diagram of Underground Metering](image)

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**Overhead Service Attachment**  
**Roof Plate**

**Customer furnishes, installs and maintains:**

1. Roof plate
2. Service head  
   (if the service run extends through the roof, the service head shall be so located that it is 6 in. on either side of the service drop and extends 18 in. above the roof.)
3. Service run
4. Service run wires  
   (allow a minimum of 18 in. beyond the service head to make connections to service drop wires)

**ComEd furnishes, installs and maintains:**

5. Service drop dead-end
6. Connectors for connecting customer’s wires to service drop
**Overhead Service Details**

**Wood Riser**

1. 4' 0" max. 4" x 4" riser
2. 10' 0" max. 6" x 6" riser
3. 10" Min.
4. 2' 6" Max.

**Underground Metering**

**Underground Meter Fitting and Raceway**

**Single-Phase, Three-Wire 120/240 or 120/208 Volts, 200 Amps Maximum Rating**

**Customer furnishes, installs and maintains:**

1. Single position combination meter fitting and raceway (200 amps maximum per meter position)
2. Meter socket load wire terminals
3. Neutral terminal
4. Fifth terminal with potential tap ( # 12 copper wire or equivalent) from neutral terminal (120/208 volt service only)
5. Ground connection per local code
6. Compression lug connectors for phase and neutral cables**
7. Horn type bypass

**ComEd usually furnishes, installs and maintains:**

8. Underground secondary service cables (slack in cables of at least 12 in. must be provided)

**ComEd furnishes, installs and maintains:**

9. Meter

**Notes:**

*See pages 39 and 43 for some exceptions.

Raceway also available with factory installed main circuit breaker.

Meter fittings must be CECHA approved.

**Customer to install lugs only when secondary service cables are provided by the customer.

For overhead to underground installations, ComEd will supply cable protection on pole at customer's expense.
Underground Metering
Underground Meter Fitting and Raceway

Overhead Service Details
Wood Riser

Customer furnishes, installs and maintains:

1. Service head
2. Service run
3. Service run wires
   (allow a minimum of 18 in. beyond the service head to make all connections to service drop wires)
4. 4 in. x 4 in. or 6 in. x 6 in. preservative treated wood post
5. 2 in. x 4 in. blocking solidly installed between rafters
6. 5/8 in. galvanized mounting bolts
   (with nuts and washers)
7. CECHA Meter fitting
8. Service attachment

ComEd furnishes, installs and maintains:

9. Service drop dead-end
10. Connectors for connecting customer wires to service drop
11. Meter
**Glossary of Terms**

**Underground Equipment**

1. **Meter** – a device that measures the amount of electricity used by a customer.
2. **Upper protective cover** – of the meter fitting
3. **Grounding connection.**
4. **Grounding electrode** (ground rod).
5. **Disconnecting means** – the main breaker, fuse box or breaker panel inside your home.
6. **Water pipe grounding connection** – a safety connection to provide an electrical path to ground.
7. **Conduit** – PVC pipe in which the service cable is installed. Must be a minimum of 3 in. schedule 40 or per local code.

**Notes:**

- See pages 26-28 for important clearances which must be observed.
- Check local codes for requirements, such as conduit requirements.
- For grounding reference, see page 47.
Underground Service

Overhead Service Details
Steel Conduit Riser

Customer furnishes, installs and maintains:

1. Service head
2. Service run wires
   (allow a minimum of 18 in. beyond the service head to make connections to service drop wires)
3. Service attachment
4. Rigid steel conduit
   (2-1/2 in. for 100 ampere or smaller, or 3 in. for larger service entrance equipment)
5. 2 in. x 4 in. blocking, solidly installed between rafters
6. Mounting clamp with 1/2 in. bolts, nuts and washers
7. Steel Conduit reducer
8. CECHA Meter fitting

ComEd furnishes, installs and maintains:

9. Service drop dead-end
10. Connectors for connecting customer’s wires to service drop
11. Meter

Note:
All metal parts exposed to weather shall be hot galvanized or non-ferrous.
Items to consider

- If your trenching route has to be dug by hand, or if a cable must be installed under a paved surface, additional charges apply.
- If your service cable has to be moved later to make room for a new swimming pool, patio, deck, etc., new charges apply. Plan ahead!
- Underground cable will be buried only in a ComEd easement or in the property that it serves. Additional charges apply if your secondary service cable route is longer than 100 feet.
- To avoid additional ComEd charges - a customer can perform the following: can dig their own trench, can install their own cable per municipality requirements - note the customer will then own and maintain the cable, can complete their own boring work per municipality requirements, and can dig their own splice pits.
- There will be charges from ComEd if you convert from overhead to underground service.
- You are responsible for making or exposing underground sprinkler systems, private wiring, sewers, drain tiles, etc.
- The trench route must be within 4 inches of final grade and clear of all obstacles (sheds, swing sets, tree stumps, landscaping, fencing, etc.).
- Generally, restoration of landscaping is the customer's responsibility.
- Conduit may be required under roads/pavement or by the municipality.
**Metering Clearances**
**Clearances for Meter Connection Devices**

**Outdoor Horizontal Clearances**

- This dimension applies to the second meter fitting when two or more are mounted on adjacent corners.
- Meters are not to be installed over a sidewalk, driveway or paved areas without protective barriers. Meters are not to be installed in locations susceptible to vehicle damage.

**Overhead Service Details**
**Customer Service Pole**

**Customer furnishes, installs and maintains:**

1. Treated pole (minimum requirements: class #7, length 25 ft.). Customer shall consult ComEd for minimum setting depth for the class and length of pole installed.
2. Service entrance cable or conductors in conduit. Allow sufficient wire to make connection to service drop wire.
3. Service heads
4. Ground rod
5. Cable clamps. Maximum spacing 3 ft.
6. Fork bolt
7. CECHA approved meter fitting
8. Service wire dead-end

**ComEd furnishes, installs and maintains the following equipment only if a service drop terminates at the pole:**

9. Service drop dead-end
10. Connectors for connecting customer wire to service drop

**ComEd furnishes, installs and maintains:**

11. Meter