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.
Overhead Service Details

Steel Conduit Riser

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

ComEd furnishes, installs and maintains:
- Service drop dead-end connectors for connecting customer's wires to service drop
- Meter

Note: All metal parts exposed to weather shall be hot galvanized or non-ferrous.
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.
Overhead Service Details

Wood Riser

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

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

Underground Metering

Underground Meter Fitting and Raceway
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.
Overhead Service Attachment

Customer furnishes, installs and maintains:
- Roof plate
- 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.)
- 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:
- Service drop dead-end connectors for connecting customer’s wires to service drop

Underground Metering
Class 320 Meter Fitting and Raceway
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:
5. Underground secondary service cables with compression lug connectors. Slack in cables of at least 12 in. must be provided

ComEd furnishes, installs and maintains:
6. 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.

For overhead to underground installations, ComEd will supply cable protection on pole at customer’s expense.
Underground Metering
Meter Connection for Mobile Home

1. Final Grade
2. 34" Min.
3. Free-standing, remote from mobile home
4. Concrete Anchor
5. 9" Min.
6. Stabilizer Foot
7. 1" Min.
8. 4-1/4" Min.
9. 15" Min.
10. 12" Min.
11. 9" Min.
12. 15" Min.
Underground Metering
Meter Connection for Mobile Homes

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

Customer furnishes, installs and maintains:

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

ComEd usually furnishes, installs and maintains:

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

ComEd furnishes, installs and maintains:

9. 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 Service
Customer's Cable Pole

13
12
15
14
8
10
9
7
4
6
2

Final Grade

24"

8' Min.

6"

8' Max.

6"

6"

5' Max.

16
11

Service Connection

Customer furnishes, installs and maintains:
- Meter connection device with lever actuated bypass (320 amperes maximum)
- Conduit and conductors (line)
- Conduit and conductors (load)
- Ground connection per local code
- Insulated metallic bushing on line and load conduits
- Compression lugs for line and load conductors
- Neutral terminal
- Bypass arm

(Not available for 120/208 Volts Service)
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