

Electric Service Availability & Line Extensions (Policy 5-1)

CDE shall provide electrical service subject to the following conditions:

A: The standard service furnished by CDE for all classes of customers shall be single-phase, 60 hertz alternating current at a nominal voltage of 120/240 volts. At the discretion of CDE Lightband, single-phase service at a nominal voltage of 120/208 volts may be supplied.

B: Three-phase, 60 hertz alternating current may be furnished by CDE Lightband where sufficient capacity in existing facilities is available. If it is necessary for CDE Lightband to install additional facilities in order to furnish three-phase service to a customer, an aid-in-construction will be required if the calculated revenue margin for the customer's three-phase load is less than the carrying costs for CDE Lightband's additions or improvements to existing facilities to provide the three-phase service at the voltage requested by the customer.

C: An aid-in-construction payment will be required for cases where customers request service at a voltage not available at their site and there is sufficient capacity available at another voltage to serve their electrical load.

D: An aid-in-construction will be required for all costs, including applicable overheads, incurred by CDE Lightband to provide alternate or dual feeds to a customer.

E: Primary line extensions required to reach the property of a new customer will normally be constructed on public road right-of-ways or within dedicated utility easements adjacent to public road right-of-ways.

Residential Subdivisions

Primary line extensions into new residential subdivisions will be constructed within dedicated utility easements adjacent to street or service road right-of-ways as available in the new subdivision. Dedicated utility easements other than those adjacent to roadways may be utilized for primary line extensions if approved by the CDE Lightband Engineering Department. For subdivisions which are to be served via underground primary lines, the requirements of CDE Lightband Operating Policy 5-6 will apply. An aid-in-construction of \$700 per lot will be paid to CDE Lightband by the developer/owner of the subdivision property which will be applied to the cost of providing the primary and secondary infrastructure and single-phase transformation facilities. In the event that three-phase transformation facilities are required within the subdivision, an additional aid-in-construction may be required. Underground services to individual houses will follow the requirements of CDE Lightband Operating Policy 5-4 and any aid-in-construction associated with this will be the responsibility of the builder/owner of each individual lot.

Commercial Subdivisions

Primary line extensions into new commercial subdivisions or business parks will be constructed within dedicated utility easements adjacent to street or service road right-of-ways as available in the new development.. Dedicated utility easements other than those adjacent to roadways may be utilized for primary line extensions if approved by the CDE Lightband Engineering Department. For subdivisions which are to be served via underground primary lines, the requirements of CDE Lightband Operating Policy 5-6 will apply. An aid-in-construction will be determined by the CDE Lightband Engineering Department to be paid by the developer/owner of the subdivision property and will be applied to the cost of providing the primary infrastructure. The costs for transformer installations associated with providing electrical service to individual lots will be recouped from the lot owner/builder.

Multi-Dwelling Unit Developments

Primary line extensions to service new apartment complexes and developments not along a public street will be constructed within dedicated utility easements provided by the owner/developer that are acceptable to the CDE Lightband Engineering Department. For subdivisions which are to be served via underground primary lines, the requirements of CDE Lightband Operating Policy 5-6 will apply. An aid-in-construction of \$250 per unit will be paid to CDE Lightband by the owner/developer of the property which will be applied to the cost of providing the primary and secondary infrastructure and single-phase transformation facilities. In the event that three-phase transformation facilities are required within the development, an additional aid-in-construction may be required. Services to individual buildings will follow the requirements of CDE Lightband Operating Policy 5-4.

Other Commercial/Industrial Customers

Primary line extensions to individual commercial or industrial customers not located within a development included in Section B will be constructed within dedicated utility easements provided by the owner/developer that are acceptable to the CDE Engineering Department. For customers who are to be served via underground primary lines, the requirements of CDE Operating Policy 5-6 will apply. An aid-in-construction will be determined by the CDE Engineering Department to be paid by the developer/owner of the subdivision property and will be applied to the cost of providing the primary infrastructure and transformation facilities. Underground services will follow the requirements of CDE Lightband Operating Policy 5-5.

Other Residential Customers

Single-phase primary line extensions to new residential customers not included within a platted subdivision will be constructed and routed in a manner acceptable to the CDE Lightband Engineering Department. For customers who are to be served via underground primary lines, the requirements of CDE Lightband Operating Policy 5-6 will apply, and CDE Lightband Operating Policy 5-4 will apply for the actual underground service to the residence. An aid-in-construction of \$10.00 per foot for primary lines and \$7.50 per foot for secondary lines will be required to be paid to CDE Lightband by the owner/builder. For line extensions which require a pad mounted transformer in lieu of a pole-type transformer, an additional aid-in-construction of \$800 will apply.

F: Any additional facilities which may be required beyond the property line of a customer solely for that customer's use may require an aid-in-construction payment.

G: An aid-in-construction payment will be required for any abnormal construction required for that customer.

H: Where multiple delivery points to a single customer are combined into a single metering point at the request of the customer, the customer shall either purchase and operated all facilities beyond the metering point or pay to CDE Lightband a monthly facilities rental charge based upon the cost of the installed plant beyond the metering point.

I: Any aid-in-construction payments will be in accordance with CDE Lightband Operating Policy 2-26.

Services & Service Entrance Equipment (Policy 5-2)

- Only one service drop, either overhead or underground, will be supplied to a building or other structure without approval by the CDE Lightband Manager of Engineering and the inspection authority.
- Any occupancy requiring service of 600 amperes or less, not exceeding 500 volts, single or three phase, overhead or underground, shall use "self-contained" metering. Express permission to have current transformer metering shall be granted only by the CDE Lightband Manager of Metering Services.
- Risers that extend through or above the roof, in addition to complying to applicable codes, shall be a minimum of two inch rigid or IMC steel and shall extend not less than two feet above the roof. Risers that extend through or above the roof shall be guyed or braced to withstand any strain imposed by service drop conductors. Risers that extend through or above roofs ten feet or less shall be continuous and without couplings or similar fittings. All materials used to guy or brace risers shall be suitable for the environment in which they are to be installed. Guy wire shall be attached by an eye bolt passing through and securely fastened to the roof framing. Eye screws shall not be considered adequate for use in attaching guy wire. Minimum guy shall be 3/16 inch steel wire. Guy wire or braces must be connected to the riser below the weatherhead.
- For risers which do not extend through or above the roof, the customer or builder shall install an attachment point suitable to withstand any strain imposed by the service drop conductors. Eye screws or similar devices shall not be considered adequate as an attachment point form service drop conductors.

- The riser(s) or attachment point(s) shall be installed at a height and location as to accommodate all minimum clearances for the service drop conductors, according to the latest revisions of the National Electrical Safety Code, the National Electrical Code, the State of Tennessee Electrical Code, and the Clarksville Department of Electricity requirements. It shall be the responsibility of the builder or electrical contractor to consult with the CDE Engineering Department to insure proper location, height, and orientation of risers, attachment points, conductors, weatherhead, and guys or braces. Proper conductor length, three feet minimum, for service hookup shall be determined at that time.

Underground Electrical Service – Residential (Policy 5-4)

CDE Lightband will provide single-phase underground electrical services to new residences subject to the following requirements:

- A. CDE Lightband shall be consulted prior to construction of service to determine the proper meter location and routing of the underground service. All services shall be installed in conduit. A maximum of two (2) 90 degree bends will be allowed in the below grade portion of the conduit installation unless otherwise approved by CDE Lightband.
- B. Developer or owner shall be responsible for all ditching and backfilling as required for the installation of underground services. Ditching shall allow for service conduits to be installed at a depth of not less than 24 inches below final grade. Foreign matter (bricks, concrete blocks, boards, bottles, trash, etc.) shall not be placed in ditches.
- C. Care shall be exercised by the developer or owner in backfilling the ditches for underground services. Earth and all materials used in the ditches are to be tamped to provide proper support for the conduits. Large rocks shall not be used as backfill within 6 inches of conduit. In the event that the conduit or service conductors are damaged during backfilling, the developer or owner shall be responsible for providing the excavation required for CDE Lightband to make repairs.
- D. Developer or owner shall be responsible for furnishing and installing the meter base and the portion of the conduit from the meter base to the ditch including a manufactured 90 degree elbow and the required conduit from the elbow to the CDE pole or vault. The above grade portion of the conduit shall be either rigid or Schedule 80 PVC. No offsets in the conduit from the manufactured elbow to the meter base will be allowed. For 200 Ampere services, conduit size shall be 2 inch and for 400 Ampere services, conduit size shall be 3 inch unless otherwise specified by CDE. In addition, a 1 inch conduit shall be furnished and installed from CDE's fiber vault to the CDE meter location. This conduit shall be located in the same ditch with the electric service conduit - no separation required (see attachment 5-4A).

E. Developer or owner shall furnish and install the conduit for the underground service. Conduit materials and installation must be inspected and approved by CDE Lightband before backfilling the trench. Developer or owner shall be responsible for installing a plastic warning tape 12 inches above the conduit during backfilling.

F. If an additional pole is required to provide an underground service, CDE Lightband will set the pole for a charge in accordance with Operating Policy 2-5.

G. Developer or owner may be required to pay for all or a portion of CDE Lightband's current installation costs for underground facilities in excess of the costs for the standard overhead services. The provisions of Operating Policy 5-7 may be applied to decrease these costs.

Underground Electrical Service – Non-Residential (Policy 5-5)

CDE Lightband will not furnish or install underground electrical services or secondaries for non-residential customers.

- All underground services and secondaries shall be furnished and installed by the developer or owner in accordance with all applicable codes. All underground material installed by the developer or owner shall be inspected by the State of Tennessee Electrical Inspector prior to backfilling.
- The developer or owner shall consult with CDE prior to construction to determine the point of connection to the underground service. For underground services which originate from overhead distribution facilities, all risers must be installed up the pole to a point no farther away than 18 inches from the CDE system neutral. All conduits must be installed on stand-off brackets or unistrut and must all be installed on one side of the pole. If requested, CDE crews will assist with installation of conduits on poles.
- CDE will furnish and install the material to make the connections from the underground service to the distribution facilities.

Underground Primary & Secondary Distribution Lines (Policy 5-6)

CDE will furnish and provide underground primary and secondary distribution facilities subject to the following requirements:

- The developer or owner shall be responsible for all ditching and backfilling associated with the installation of CDE Lightband's underground primary and secondary distribution lines and communication cables.

- All underground primary and secondary distribution lines and communication cables installed by CDE Lightband shall be in conduit. The developer or owner shall provide and install the complete conduit system for the underground primary and secondary cables. CDE Lightband shall provide the complete conduit system, including required vaults, for the communication cables. The developer or owner shall install the communication conduit system; CDE will install the vaults (see Attachment 5-6A).
- All conduits for underground primary cables shall be either Schedule 80 PVC or rigid conduit, except that all elbows shall be constructed of rigid galvanized steel. The size of the conduits shall be two (2) inches for all conduits unless otherwise specified by CDE Lightband. Three phase installations shall include three (3) two-inch conduits, one for each phase.
- CDE Lightband will furnish and install underground secondary conductors for single-phase residential applications only. All conduits for underground secondary cables shall be three (3) inch Schedule 80 PVC or rigid conduit. The number of the secondary conduits shall be as determined by CDE Lightband.
- Conduits for underground primary cables shall be installed at a depth such that the top of the conduit is not less than 48 inches below final grade. Conduits for underground secondary cables shall be installed at a depth such that the top of the conduit is not less than 36 inches below final grade. Conduits for underground secondary or service conductors and/or CDE Lightband communication cables may be installed in the same ditch as the conduits for primary cables provided that the primary conduits are on the bottom of the ditch (see Attachment 5-6A). Conduits for different utilities in a common ditch must have a minimum of 12 inches fill (or separation) between them.
- CDE Lightband shall be consulted prior to ditching to determine the proper routing of the conduits. Also, it is required that a representative from CDE Lightband inspect the conduit installation before it is covered. Earth and all materials used in the ditches are to be tamped to provide proper support for the conduits. Foreign matter (bricks, concrete blocks, boards, bottles, trash, etc.) shall not be placed in ditches. Large rocks shall not be used within 12 inches of the conduits. Compacted gravel shall be used as backfill for all street crossings. The developer or owner shall be responsible for installing a plastic warning tape 12 inches above the conduits during backfilling.
- Where underground primary or secondary lines will originate from overhead distribution facilities, or poles, all conduits must be installed, or "turned-up", at the pole, as directed by CDE Lightband.
- Spare conduits shall be installed where required by CDE Lightband.
- The developer or owner shall be responsible for preparing transformer pads as required. Gravel backfill shall be used in all ditches within three feet of all pad locations. CDE Lightband will provide drawings of the pad details.

- The developer or owner shall be responsible for preparing foundations for sectionalizing equipment or secondary vaults as required. Gravel backfill shall be used in all ditches within three feet of these locations. CDE Lightband will furnish the dimensions for these foundations.
- In accordance with CDE Lightband Operating Policy 5-1, developer or owner shall be required to remit payment or letter of credit prior to commencement of work by CDE Lightband.

Construction Temporary Service (Policy 5-8)

Construction temporary services shall not be furnished or installed by CDE Lightband and electrical service shall not be connected by CDE Lightband until the construction temporary service has been inspected and approved by the State of Tennessee Deputy Electrical Inspector.

Construction temporary services shall only be attached to or mounted on structures or poles furnished and installed by the owner of the construction temporary service or his agent. The structure or pole furnished and installed shall be adequate in strength to support work on the structure or pole by CDE Lightband personnel in connecting service wire to the construction temporary service. The structure or pole furnished and installed shall be of adequate height to allow the service wire to satisfy all applicable codes in height or clearances. No structure or pole intended for the attachment of a construction temporary service shall be located less than five (5) feet nor more than one hundred (100) feet from a utility pole from which electric service may be supplied. If the above distance is greater than 100 feet, the party requesting service shall be billed the actual unrecoverable cost of installation and removal in addition to normal charges for temporary service.

In those areas in which all CDE Lightband facilities are underground, the party installing the temporary service shall furnish and install all service conduit and wiring from the temporary service to the point of connection with facilities owned by CDE Lightband. This point shall be designated by an authorized representative of CDE Lightband. CDE Lightband shall make the connection to the customer's wire.

It shall be the sole responsibility of the party installing the construction temporary service to contact CDE Lightband for the purpose of establishing a suitable location.

The charge by CDE Lightband for connection of temporary service shall be in accordance with the appropriate charge stated in the current revision of CDE Lightband Operating Policy 2-5. Unrecoverable costs for excess distance as stated above may also apply.

CDE Lightband shall bill all energy in accordance with the appropriate TVA rate schedule referred to in the current revision of CDE Lightband Operating Policy 2-1.

New Commercial Electrical Installations or Additions (Policy 5-11)

New construction electrical load(s) or any additional load to existing electrical installations shall be made only with express permission by the CDE Lightband Engineering Department. It shall be the responsibility of the electrician to consult with the above prior to design or installation of service equipment and associated wiring as to the availability of desired voltage, phases, amperage, etc. and to submit in writing detailed information to allow CDE to properly size distribution equipment.

Before any electrical service is provided to any commercial building (including schools, churches, etc.), an electrical load report must be submitted to the CDE Lightband Engineering Department. This ensures that the transformer station and service provided by CDE Lightband will be of sufficient size to carry the load. This report should be completed as accurately as possible and must be signed by either the electrical contractor, builder or owner. Damage to CDE Lightband facilities resulting from inaccurate information will be the responsibility of the person submitting the load report. No work order will be issued for service until this report is received by the Engineering Department. Download the electric load form or call (931) 905-7234 to have it faxed.

It shall also be the responsibility of the electrician to consult with CDE Lightband at the building site for the purpose of determining the physical location of the riser or underground service and meter socket. Meter sockets shall not be located on CDE Lightband owned poles unless specifically required by the Manager of CDE Lightband Meter Department. Failure to comply with provisions of this policy shall relieve CDE of any obligation to provide service to the location.

Service Reconnection Requiring Inspection (Policy 5-12)

- Electrical service shall not be restored or reconnected to any facility that will require an electrical inspection because of work performed or damage incurred at the facility until an inspection has been performed by the appropriate and authorized inspecting agency and CDE Lightband has been notified that the facility is approved for reconnection except as follows:
- After repairs have been made by qualified personnel, electrical service may be restored to facilities that have been disconnected because of damage resulting from acts of nature or vehicles and damages are limited to exterior electrical equipment, specifically, the riser and/or meter socket. Reconnection does not affect the requirement for inspection applying to the repair. A notice of approval by the appropriate and authorized inspecting agency must be received by CDE Lightband within seven (7) calendar days. Failure to receive a notice of approval will require that electrical service be disconnected without notice until such notice of approval is received by CDE Lightband.

