

ELECTRIC SERVICE REQUIREMENTS



Tullahoma, Tennessee

Effective
May 1, 2000

FINAL APPROVED COPY

Contents

	<u>Page</u>
I. Residential Services (Overhead)	3
II. Residential Services (Underground)	5
III. Mobile and Manufactured Homes (Overhead)	8
IV. Mobile and Manufactured Homes (Underground)	9
V. Temporary Service Poles (Overhead)	11
VI. Temporary Service Poles (Underground)	13
VII. All Residential Services	15
VIII. Residential Primary Line Extensions	16
VIII. Commercial Services	17
X. Industrial Services	20
XI. Procedures for Obtaining Electric Service	23

General: All wiring and electrical installations shall comply with the current editions of the National Electric Code and the State of Tennessee’s “Rules of Department of Commerce and Insurance, Division of Fire Prevention, Chapter 0780-2-1, Electrical Installations”.

They shall also comply with the following special provisions.

I. Residential Services (Overhead)

A. Overhead Service Entrance Conductors (weatherhead to line side of meter socket) and Service Conductors (load side of meter socket to line side of breaker panel):

1. 60 Amp. Main – No. 6 stranded copper with THW or THWN black insulation on hot conductors. No. 6 stranded copper with THW or THWN white insulation on neutral conductor. The contractor or customer shall install these conductors from the load side of the meter socket to the line side of the main switch panel and from the line side of the meter socket to the weatherhead.
2. 100 Amp. Main – No. 2 stranded copper with THW or THWN black insulation on hot conductors, No. 4 stranded copper with THW or THWN white insulation on neutral conductor. The contractor or customer shall install these conductors from the load side of the meter socket to the line side of the main switch panel and from the line side of the meter socket to the weatherhead.
3. 200 Amp. Main – No. 3/0 stranded copper with THW or THWN black insulation on hot conductors, minimum No. 1/0 stranded copper with THW or THWN white insulation on the neutral conductor. The contractor or customer shall install these conductors from the load side of the meter socket to the line side of the main switch panel and from the line side of the meter socket to the weatherhead.
4. 225 Amp. Main – No. 4/0 stranded copper with THW or THWN black insulation on hot conductors, minimum No. 2/0 stranded copper with THW or THWN white insulation on the neutral conductor. The contractor or customer shall install these conductors from the load side of the meter socket to the line side of the main switch panel and from the line side of the meter socket to the weatherhead.
5. 400 Amp. Main – No. 500 stranded copper with THW or THWN black insulation on hot conductors, minimum No. 350 stranded copper with THW or THWN white insulation on the neutral conductor. The contractor or customer shall install these conductors from the load side of the meter socket to the line side of the main switch panel and from the line side of the meter socket to the weatherhead.

B. Overhead Service Entrance Installations:

1. The customer shall provide pipe mast services at all locations where proper clearance from ground (minimum 12' to lowest point) cannot be obtained with service attachment on the building. A minimum of 2" galvanized rigid steel conduit riser is required. The conduit riser shall be equipped with an approved roof flange and shall be securely anchored. The conduit riser shall extend a minimum of 36" above the roofline and a maximum rise of 42" above the roofline. No conduit riser shall have any splices in them, however, if a single 10' length of rigid conduit does not provide ample clearance, splices may be made only below the lowest of the support brackets.
2. The customer shall install an approved meter socket supplied by the Tullahoma Utilities Board (TUB) at a location on the building as designated by a TUB Electric System representative. The center line of the meter socket is to be installed 5 ½' above finished grade.

C. Other Residential Overhead Services:

1. These service entrances may be installed, if proper ground clearance can be obtained, by attachment to the building (minimum 12' to lowest point) in galvanized thin wall conduit. The conduit shall have approved seal-tight couplings at the meter socket hub, and at any splices made in the conduit run. Only two conduit sizes are approved for this purpose: 1 ¼" I.D. for 60 amp. and 100 amp. services; 2" I.D. for 200 amp. services.

D. Grounding of Overhead Residential Services:

1. All services 200 amp. and below shall have a minimum of No. 4 solid bare copper conductor for grounding purposes. For services larger than 200 amp., the copper grounding conductor used shall be as designated in the National Electric Code Article 250-66. The conductor shall be installed and bonded to two driven grounding electrodes spaced a minimum of 8' apart in accordance with National Electric Code Article 250 Part C and Part E.

II Residential Services (Underground)

A. Service Conductors (Load Side Of Meter Base To Line Side Of Switch Panel):

1. 60 Amp. Main – No. 6 stranded copper with THW or THWN black insulation on hot conductors. No. 6 stranded copper with THW or THWN white insulation on neutral conductor. The contractor or customer shall install these conductors from the load side of the meter socket to the line side of the main switch panel.
2. 100 Amp. Main – No. 2 stranded copper with THW or THWN black insulation on hot conductors, No. 4 stranded copper with THW or THWN white insulation on neutral conductor. The contractor or customer shall install these conductors from the load side of meter socket to the line side of the main switch panel.
3. 200 Amp. Main – No. 3/0 stranded copper with THW or THWN black insulation on hot conductors, minimum No. 1/0 stranded copper with THW or THWN white insulation on the neutral conductor. The contractor or customer shall install these conductors from the load side of meter socket to the line side of the main switch panel.
4. 225 Amp. Main – No. 4/0 stranded copper with THW or THWN black insulation on hot conductors, minimum No. 2/0 stranded copper with THW or THWN white insulation on the neutral conductor. The contractor or customer shall install these conductors from the load side of meter socket to the line side of the main switch panel.
5. 400 Amp. Main – No. 500 stranded copper with THW or THWN black insulation on hot conductors, minimum No. 350 stranded copper with THW or THWN white insulation on the neutral conductor. The contractor or customer shall install these conductors from the load side of meter socket to the line side of the main switch panel.

B. Grounding of Underground (UG) Residential Services:

1. All services 200 amp. and below shall have a minimum of No. 4 solid bare copper conductor for grounding purposes. For services larger than 200 amp., the copper grounding conductor used shall be as designated in the National Electric Code Article 250-66. The conductor shall be installed and bonded to two driven grounding electrodes spaced a minimum of 8' apart in accordance with National Electric Code Article 250 Part C and Part E.

C. Underground Service Installations

1. Customer requirements:
 - a. The customer shall furnish a trench which is a minimum of 4" wide and 30" deep for the entire service run from the metering

point to the pad mount transformer or service pole via a route designated by a representative of the TUB Electric System.

- b. The customer shall install an approved meter socket (supplied by TUB) at a location on the building as designated by the TUB Electric System representative. The center line of the installed meter socket shall be 5 ½' above the finished grade.
- c. The customer shall install Schedule 40 polyvinyl chloride (PVC) conduit in the trench. At the pole or pad-mounted transformer, he shall install a 90-degree elbow and stub up a PVC conduit. At the meter he shall install a 90-degree elbow and shall install rigid steel conduit to the meter socket. The conduit shall be attached to the meter socket with two steel locknuts and one approved conduit bushing. The conduit sizes are as follows:
 - 200 amp. service and below – 2 ½" conduit
 - 201 to 400 amp. service – 3" conduit
 - 401 to 600 amp. service – 4" conduit
 - larger than 600 amp. services – to be determined on site by a TUB representative.
- d. The customer shall install a ¼" polypropylene rope in the conduit for cable pulling purposes.
- e. The customer shall inform the TUB when trench, conduit, and meter socket are ready for inspection by the TUB Electric System representative. The customer or their representative shall be at the site during the inspection. Upon approval by the TUB, the customer shall backfill the trench or a portion of trench as designated by the TUB representative.

2. Tullahoma Utilities Board Work Performance:

- a. The TUB will install and connect all cable from point of origin to the line side of the meter socket when all services charges have been paid, the State of Tennessee electrical inspections have been made and passed, and an approval certificate from the City of Tullahoma Codes Department has been issued.
- b. The TUB will furnish the appropriate size and class meter socket for each meter location. No meter sockets from outside the TUB Electric System will be permitted.
- c. The TUB will furnish, locate, install, and maintain the appropriate size transformer for adequate service. The TUB shall also have access at all times to the transformer locations.

3. Residential Underground Service (UG) Charges:

- a. All underground service charges are borne by the customer.
- b. Charges include installation by the TUB personnel as outlined in item II, C, 2 (a)(b).
- c. Upon request, the customer will be provided current underground service charge information in accordance with the TUB policy E-006 "Underground Service Availability and Charges", at the time the service is located by the TUB representative. The customer

will be invoiced for UG service charges by the TUB at a later date.

- d. All underground services charges must be paid at the TUB office prior to service installation.

III. Mobile and Manufactured Homes (Overhead)

A. Overhead Service Entrance Conductors (weatherhead to line side of meter socket) and Service Conductors (load side of meter socket to line side of disconnecting means):

1. 100 Amp. Main – No. 2 stranded copper with THW or THWN black insulation on hot conductors, No. 4 stranded copper with THW or THWN white insulation on neutral conductor. The contractor or customer shall install these conductors from the load side of the meter socket to the line side of the disconnecting means and from the line side of the meter socket to the weatherhead.
2. 200 Amp. Main – No. 3/0 stranded copper with THW or THWN black insulation on hot conductors, minimum No. 1/0 stranded copper with THW or THWN white insulation on the neutral conductor. The contractor or customer shall install these conductors from the load side of the meter socket to the line side of the disconnecting means and from the line side of the meter socket to the weatherhead.

B. Overhead Service Entrance Pole Installations:

1. The customer shall install at the minimum a 6" diameter treated service pole. To maintain proper clearances the pole height and location is to be determined on site by a TUB Electric System representative. The pole is to be installed a minimum of 5' below finished grade.
2. The customer shall install galvanized thin wall conduit or a rigid steel conduit riser and weatherhead to 6" below the top of the pole.
3. The customer shall install a 5/8" eyebolt 6" below the top of the weatherhead.
4. The customer shall install a minimum of 1/4" steel guy wire and a minimum of 5/8" x 5' anchor rod and expanding anchor plate. Screw type anchors will not be permitted.
5. The customer shall install an approved meter socket (supplied by the TUB). The center line of the installed meter socket shall be 5 1/2' above finished grade.

C. Grounding of Mobile and Manufactured Home Overhead Services:

1. All services 200 amp. and below shall have a minimum of No. 4 solid bare copper conductor for grounding purposes. For services larger than 200 amp., the copper grounding conductor used shall be as designated in the National Electric Code Article 250-66. The conductor shall be installed and bonded to two driven grounding electrodes spaced a minimum of 8' apart in accordance with National Electric Code Article 250 Part C and Part E.

IV. Mobile and Manufactured Homes (Underground)

A. Service Conductors (Load Side Of Meter Base To Line Side Of Disconnect Switch):

1. 100 Amp. Main – No. 2 stranded copper with THW or THWN black insulation on hot conductors, No. 4 stranded copper with THW or THWN white insulation on neutral conductor. The contractor or customer shall install these conductors from the load side of the meter socket to the line side of the disconnect switch.
2. 200 Amp. Main – No. 3/0 stranded copper with THW or THWN black insulation on hot conductors, minimum No. 1/0 stranded copper with THW or THWN white insulation on the neutral conductor. The contractor or customer shall install these conductors from the load side of the meter socket to the line side of the disconnect switch.

B. Underground Service Entrance Pole Installations:

1. The customer shall install at the minimum a 6” diameter treated service pole or 6” x 6” treated post. The pole is to be installed a minimum of 5’ below finished grade. The pole location is to be determined on site by the TUB Electric System representative.
2. The customer shall install an approved meter socket (supplied by the TUB). The center line of the installed meter socket shall be 5 ½’ above finished grade.

C. Grounding of Underground (UG) Residential Services:

1. All services 200 amp. and below shall have a minimum of No. 4 solid bare copper conductor for grounding purposes. For services larger than 200 amp., the copper grounding conductor used shall be as designated in the National Electric Code Article 250-66. The conductor shall be installed and bonded to two driven grounding electrodes spaced a minimum of 8’ apart in accordance with National Electric Code Article 250 Part C and Part E.

D. Underground Service Installations

1. Customer requirements:
 - a. The customer shall furnish a trench which is a minimum of 4” wide and 30” deep for the entire service run from the metering point to the pad mount transformer or service pole via a route designated by a representative of the TUB Electric System.
 - b. The customer shall install an approved meter socket (supplied by TUB) on service pole at location to be determined by the TUB Electric System representative. The center line of the installed meter socket shall be 5 ½’ above finished grade. The customer shall attach rigid steel conduit to the meter socket with two steel locknuts and one approved conduit bushing. The conduit shall

be secured to the service pole with a minimum of two, one-hole rigid conduit straps.

- c. The customer shall install Schedule 40 polyvinyl chloride (PVC) conduit in the trench. At the pole or pad-mounted transformer, he shall install a 90-degree elbow and stub up a PVC conduit. At the meter he shall install a 90-degree elbow and shall install rigid steel conduit to the meter socket. The conduit shall be attached to the meter socket with two steel locknuts and one approved conduit bushing. The conduit sizes are as follows:
 - 200 amp. service and below – 2 ½” conduit
 - larger than 200 amp. service – to be determined on site by TUB representative.
- d. The customer shall install a ¼” polypropylene rope in the conduit for cable pulling purposes.
- e. The customer shall inform the TUB when the trench, conduit, pole, and meter socket are ready for inspection by the TUB Electric System representative. The customer or their representative shall be at the site during the inspection. Upon approval by the TUB, the customer shall backfill the trench or a portion of the trench as designated by the TUB representative.

2. Tullahoma Utilities Board Work Performance:

- a. The TUB will install and connect all cable from point of origin to line side of the meter socket when all services charges have been paid, the State of Tennessee electrical inspections have been made and passed, and the approval certificate from the City of Tullahoma Codes Department has been issued.
- b. The TUB will furnish the appropriate size and class meter socket for each meter location. No meter sockets from outside the TUB Electric System will be permitted.
- c. The TUB will furnish, locate, install, and maintain the appropriate size transformer for adequate service. The TUB shall also have access at all times to the transformer locations.

3. Residential Underground Service Charges:

- a. All underground service charges shall be borne by the customer.
- b. Charges include installation by TUB personnel as outlined in item II, C, 2 (a)(b).
- c. Upon request, the customer will be provided current underground service charges information in accordance with the TUB policy E-006 “Underground Service Availability and Charges” at the time the service is located by the TUB representative. The customer will be invoiced for UG service charges by the TUB at a later date.
- d. All underground services charges must be paid at the TUB office prior to service installation.

V. Temporary Service Poles (Overhead)

A. Overhead Service Entrance Conductors (weatherhead to line side of meter socket) and Service Conductors (load side of meter socket to line side of disconnect):

1. 60 Amp. Main – No. 6 stranded copper with THW or THWN black insulation on hot conductors. No. 6 stranded copper with THW or THWN white insulation on neutral conductor. The contractor or customer shall install these conductors from the load side of the meter socket to the line side of the disconnecting means and from the line side of the meter socket to the weatherhead.
2. 100 Amp. Main – No. 2 stranded copper with THW or THWN black insulation on hot conductors, No. 4 stranded copper with THW or THWN white insulation on neutral conductor. The contractor or customer shall install these conductors from the load side of the meter socket to the line side of the disconnecting means and from the line side of the meter socket to the weatherhead.
3. 200 Amp. Main – No. 3/0 stranded copper with THW or THWN black insulation on hot conductors, minimum No. 1/0 stranded copper with THW or THWN white insulation on the neutral conductor. The contractor or customer shall install these conductors from the load side of the meter socket to the line side of the disconnecting means and from the line side of the meter socket to the weatherhead.

B. Overhead Temporary Service Entrance Pole Installations:

1. The customer shall install a minimum of a 4” square or a 4” diameter treated service pole. To maintain proper clearances, the pole height and location is to be determined on site by the TUB Electric System representative. The pole is to be installed a minimum of 3’ below finished grade.
2. The customer shall install a galvanized thin wall conduit or a rigid steel conduit riser, and weatherhead to 6” below the top of pole.
3. The customer shall install a 5/8” eyebolt 6” below the top of the weatherhead.
4. The customer shall install bracing to support pole against tension of the TUB service wire.
5. The customer shall furnish and install an approved meter socket. The center line of the installed meter socket shall be 5 ½’ above the finished grade.

C. Grounding of Overhead Temporary Services:

1. All services 200 amp. and below shall have a minimum of No. 4 solid bare copper conductor for grounding purposes. For services larger than 200 amp., the copper grounding conductor used shall be as designated in the National Electric Code Article 250-66. The conductor shall be installed

and bonded to one driven grounding electrode in accordance with National Electric Code Article 250 Part C and Part E.

VI. Temporary Service Poles (Underground)

A. Service Conductors (Load Side Of Meter Base To Line Side Of Disconnect):

1. 60 Amp. Main – No. 6 stranded copper with THW or THWN black insulation on hot conductors. No. 6 stranded copper with THW or THWN white insulation on neutral conductor. The contractor or customer shall install these conductors from the load side of the meter socket to the line side of the disconnect switch.
2. 100 Amp. Main – No. 2 stranded copper with THW or THWN black insulation on hot conductors, No. 4 stranded copper with THW or THWN white insulation on neutral conductor. The contractor or customer shall install these conductors from the load side of the meter socket to the line side of the disconnect switch.
3. 200 Amp. Main – No. 3/0 stranded copper with THW or THWN black insulation on hot conductors, minimum No. 1/0 stranded copper with THW or THWN white insulation on the neutral conductor. The contractor or customer shall install these conductors from the load side of the meter socket to the line side of the disconnect switch.

B. Underground Temporary Service Entrance Pole Installations:

1. The customer shall install a minimum of a 4” square or a 4” diameter treated service pole. The pole is to be installed a minimum of 3’ below finished grade. The pole location is to be determined on site by the TUB Electric System representative.
2. The customer shall furnish and install an approved meter socket. The center line of the installed meter socket shall be 5 ½’ above the finished grade.

NOTE: The customer may use an overhead temporary service pole as specified in Article V at underground service locations if the customer installs rigid metal conduit on the pole from 12” below grade to the weatherhead and secures conduit with rigid metal conduit straps.

C. Grounding of Underground Temporary Services:

2. All services 200 amp. and below shall have a minimum of No. 4 solid bare copper conductor for grounding purposes. For services larger than 200 amp., the copper grounding conductor used shall be as designated in the National Electric Code Article 250-66. The conductor shall be installed and bonded to one driven grounding electrode in accordance with National Electric Code Article 250 Part C and Part E.

D. Underground Temporary Service Installations

1. Customer requirements:

- a. The customer shall furnish a trench which is a minimum of 4" wide and 24" deep for the entire service run from the metering point to the pad mount transformer or service pole via a route designated by a representative of the TUB Electric System.
- b. The customer shall furnish and install an approved meter socket on the service pole at a location to be determined by the TUB Electric System representative. The center line of the installed meter socket shall be 5 ½' above the finished grade. The customer shall attach rigid steel conduit to meter socket with two steel locknuts and one approved conduit bushing. Conduit shall be secured to service pole with minimum of two, one-hole rigid conduit straps. The conduit sizes are as follows:

100 amp. service and below – 1 ½" conduit

200 amp. service – 2 ½" conduit

1. Tullahoma Utilities Board Work Performance:

- a. The TUB will install and connect all cable from the point of origin to the line side of the meter socket when all service charges have been paid and the State of Tennessee electrical inspections have been made and passed.
- b. The TUB will furnish, locate, install, and maintain the appropriate size transformer for adequate service. The TUB shall also have access at all times to the transformer locations.

VII. All Residential Services

- A. For services larger than 400 amperes, prior permission from the Tullahoma Utilities Board must be obtained.
- B. The point of service attachment and the meter location shall be approved in advance by an authorized agent of the TUB Electric System.
- C. If the service requires a means of disconnect, the service conductors shall be as specified in item I and II, and shall be installed by the contractor or customer from the load side of the meter socket to the line side of the disconnecting means.

VIII. Residential Primary Line Extensions

- A. In general all primary line extensions whether underground or overhead are built at some charge to the customer. A Contribution in-aid-of-Construction charge has been established for the sharing of costs for primary line construction to provide services to that customer.
- B. A party requesting extension of a primary line to receive electrical service will pay for the TUB's non-recoverable costs associated with that extension by making a contribution in-aid-of construction. By definition, the non-recoverable costs shall be considered as all costs except the TUB's costs for materials.
- C. An agreement between the TUB and the requester will be executed prior to the TUB making any part of the installation.
- D. The contribution in-aid-of construction must be paid before material will be ordered and/or work will begin.
- E. The primary line extension policies apply to all customers or applicants of electric service from the TUB.
- F. The customer shall furnish a right-of-way easement for primary line extension and transformer as specified by the TUB representative prior to the TUB making any part of the installation.
- G. The customer shall clear the power line right-of-way of trees and obstructions as specified by the TUB representative prior to the TUB performing any part of the installation.
- H. The customer shall furnish trenching and conduit on the underground primary line extensions as specified by the TUB representative. The customer is responsible for backfill of trench and repairs of any future trench settling.

NOTE: Providing street lighting is not a part of a primary line extension.

VIII. Commercial Services

A. Information needed for determination of service type:

1. Single phase or three phase.
2. Secondary voltage level required: 120/240, 120/208, 277/480, etc.
3. Current rating of the main switch panel.
4. Diversified KW load.
5. Load breakdown of equipment to be used: motors, air conditioning, heating, lighting, etc.
6. Date requested for final service connection.
7. Any plans for future expansion of business.
8. Overhead or underground service.
9. Business hours of operation per month.
10. Completion of the TUB Power Service Contract.
11. Power line right-of-way easement as specified by the TUB representative.
12. Complete set of stamped drawings with site utility plan, mechanical sections, electrical sections, and electrical panel board schedule.

B. Customer Requirements:

1. Install service conductor, grounding, conduit, termination cabinets, instrument transformer cabinets, and metering cabinets as per specifications of the TUB, which are calculated from customer information.
2. Provide a readily accessible point on building for termination of the TUB service (overhead or underground).
3. Identify all phase conductors (on three phase installations) with lettering or tape markings throughout the entire installation.
4. Single phase installations shall have black insulation on hot conductors and white insulation on neutral conductor.
5. All insulation from service entrance to main switch shall be THW or THWN unless otherwise noted in the National Electric Code, such as: hazardous locations or high temperature areas.
6. The customer shall install copper conductors from the main breaker or disconnect switch to the instrument transformer cabinet or metering cabinet. In cases where the instrument transformers are located at the pad mounted distribution transformer or pole mount distribution transformers, the customer shall install copper conductors from the main breaker or disconnect switch to transformer(s). The TUB will terminate customer's service conductors at the transformer(s) or meter cabinet.
7. The customer shall provide a concrete pad for pad mount transformer applications meeting the TUB specifications furnished at later date.
8. The customer shall install meter cabinet on building being serviced by the TUB. Meter sockets or cabinets will not be attached to pad mount transformer or poles.
9. The customer shall furnish and install a 5/8" x 8' grounding electrode at the meter cabinet and bond cabinet to electrode with continuous run of

No. 4 solid bare copper grounding conductor. This additional ground is for metering and cabinet purposes.

C. Tullahoma Utilities Board Work Performance:

1. The TUB will install all service cable (overhead or underground) from the point of origin to the instrument transformer cabinet or meter cabinet and make all connections necessary to energize the service when all state electric inspections are made and approved, all applicable fees are paid, and the approval certificate from the City of Tullahoma Codes Department has been issued. In cases where instrument transformers are located at a pad mount distribution transformer or pole mount distribution transformers, the customer shall install copper conductors from the main breaker to the transformer(s) or disconnect switch to the transformer(s). The TUB will terminate the customer's service conductors at the transformers or meter cabinet.
2. The TUB will furnish the appropriate meter cabinet and/or instrument transformer cabinet for each meter location. Any fabricated cabinets by the customer or contractor must have prior approval of the TUB.
3. The TUB will furnish, locate, install, and maintain the appropriate size transformer(s) for adequate service. The TUB shall have access at all times to the transformer(s) location.
4. The TUB will inform the customer or contractor of any charges for work or materials at each service installation.

D. Commercial Underground Service Charges:

1. All underground service charges shall be borne by the customer.
2. Charges include installation of service cable as outlined in item VIII, C, 1.
3. Upon request, the customer will be provided current underground service charges in accordance with TUB policy E-006 "Underground Service Availability and Charges", at time service is located by the TUB representative. The customer will be invoiced for underground service charges by the TUB at a later date.
4. All underground service charges must be paid at the TUB office prior to service installation.

E. Commercial Primary Line Extensions:

1. In general all primary line extensions whether underground or overhead are built at some charge to the customer. A Contribution in-aid-of-Construction charge has been established for the sharing of costs for primary line construction to provide services to that customer.
2. A party requesting extension of a primary line to receive electrical service will pay for the TUB's non-recoverable costs associated with that extension by making a contribution in-aid-of construction. By definition, the non-recoverable costs shall be considered as all costs except the TUB's costs for materials.

3. An agreement between the TUB and the requester will be executed prior to the TUB making any part of the installation.
4. The contribution in-aid-of construction must be paid before material will be ordered and/or work will begin.
5. The primary line extension policies apply to all customers or applicants of electric service from the TUB.
6. The customer shall furnish a right-of-way easement for the primary line extension and transformer as specified by the TUB representative prior to the TUB making any part of the installation.
7. The customer shall clear the power line right-of-way of trees and obstructions as specified by the TUB representative prior to the TUB making any part of the installation.
8. The customer shall furnish trenching and conduit on underground primary line extensions as specified by the TUB representative. The customer is responsible for backfill of trench and future repairs as a result of any trench settling.

X. Industrial Services

A. Information needed for determination of service type:

1. Operating voltage: i.e. 120/240, 120/208, 277/480, etc.
2. Current rating of the main switch panel.
3. Type of service bus to be used: bus duct, stranded conductor, underground, etc.
4. Diversified KW load.
5. Load breakdown of equipment to be used: special motors, air conditioning, heating, lighting, etc.
6. Date requested for final service connection.
7. Any plans for future expansion of business.
8. Overhead or underground service.
9. Business hours of operation per month.
10. Completion of the TUB Power Service Contract.
11. Power line right-of-way easement as specified by the TUB representative.
12. Complete set of stamped drawings with site utility plan, mechanical sections, electrical sections, and electrical panel board schedule.

B. Customer Requirements:

1. Install service conductor, grounding, conduit, termination cabinets, instrument transformer cabinets, and metering cabinets as per specifications of the TUB, which are calculated from the customer information.
2. Provide a readily accessible point on building for termination of the TUB service (overhead or underground).
3. In case of pad mount transformers, customer shall furnish a concrete pad with approved type and quantity of conduit and shall extend his service conductors from the main switch panel to the secondary compartment of pad mount transformer – all in accordance with the TUB specifications.
4. Identify all phase conductors (on three phase installations) with lettering or tape markings throughout the entire installation.
5. All insulation from the service entrance to the main switch shall be THW or THWN unless otherwise noted in the National Electric Code, such as: hazardous locations or high temperature areas.
6. The customer shall install copper conductors from the main breaker or disconnect switch to the instrument transformer cabinet or metering cabinet. In cases where instrument transformers are located at the pad mount distribution transformer or pole mount distribution transformers, the customer shall install copper conductors to from the main breaker to the transformer(s) or the disconnect switch to the transformer(s). The TUB will terminate the customer's service conductors at the transformers or meter cabinet.
7. The customer shall install the meter cabinet on the building being serviced by the TUB. Meter sockets or cabinets will not be attached to the pad mount transformer or poles.
8. The customer shall furnish and install a 5/8" x 8' grounding electrode at the meter cabinet and bond cabinet to electrode with continuous run of

No. 4 solid bare copper grounding conductor. This additional ground is for metering and cabinet purposes.

C. Tullahoma Utilities Board Work Performance:

1. The TUB will install all service cable (overhead or underground), with the exception of pad mounted installations, from the point of origin to the instrument transformer cabinet or meter cabinet, and make all connections necessary to energize the service when all state electric inspections are made and approved, all applicable fees are paid, and the approval certificate from the City of Tullahoma Codes Department has been issued. In cases where the instrument transformers are located at a pad mount distribution transformer or pole mount distribution transformers, the customer shall install copper conductors from the main breaker to the transformer(s) or the disconnect switch to the transformers(s). The TUB will terminate the customer's service conductors at the transformers or meter cabinet.
2. The TUB will furnish the appropriate meter cabinet and/or instrument transformer cabinet for each meter location. Any fabricated cabinets by the customer or contractor must have prior approval of the TUB.
3. The TUB will furnish, locate, install, and maintain the appropriate size transformer(s) for adequate service. The TUB shall have access at all times to the transformer(s) locations.
4. The TUB will inform the customer or contractor of any charges for work or materials at each service installation.

D. Industrial Underground Service Charges:

1. All underground service charges shall be borne by the customer or contractor.
2. Charges include installation of service cable as outlined in item X, C, 1.
3. Upon request, the customer will be provided current underground service charges in accordance with TUB policy E-006 "Underground Service Availability and Charges", at time service is located by the TUB representative. The customer will be invoiced for underground service charges by the TUB at a later date.
4. All underground service charges must be paid at the TUB office prior to service installation.

E. Industrial Primary Line Extensions:

1. In general all primary line extensions whether underground or overhead are built at some charge to the customer. A Contribution in-aid-of-Construction charge has been established for the sharing of costs for primary line construction to provide services to that customer.
2. A party requesting extension of a primary line to receive electrical service will pay for the TUB's non-recoverable costs associated with that extension by making a contribution in-aid-of construction. By definition, the non-recoverable costs shall be considered as all costs except the TUB's costs for materials.

3. An agreement between the TUB and the requester will be executed prior to the TUB making any part of the installation.
4. The contribution in-aid-of construction must be paid before material will be ordered and/or work will begin.
5. The primary line extension policies apply to all customers or applicants of electric service from the TUB.
6. The customer shall furnish a right-of-way easement for the primary line extension and transformer as specified by the TUB representative prior to the TUB making any part of installation.
7. The customer shall clear the power line right-of-way of trees and obstructions as specified by the TUB representative prior to the TUB making any part of the installation.
8. The customer shall furnish trenching and conduit on underground primary line extensions as specified by the TUB representative. The customer is responsible for backfill of trench and future repairs as a result of any trench settling.

XI. Procedures for Obtaining Electric Service:

- A. Complete Service Availability Form at the TUB Customer Service Department.
- B. Obtain a building permit and electrical permit from the City of Tullahoma Codes Department.
- C. Make service application, pay service charges, pay contribution in aid-of-construction charges, and deposits at the TUB office.
- D. Inform the TUB of any unusual loads, locations, etc.
- E. Obtain approval of meter location from TUB representative.
- F. Pick up the meter socket or cabinet at the TUB warehouse. The customer must have the service approval form and state inspection permit when picking up the metering socket or cabinet.
- G. Obtain an approval of the State of Tennessee Electrical Inspector.
- H. Obtain an approval certificate from the City of Tullahoma Codes Department.

The Tullahoma Utilities Board reserves the right to refuse service or to discontinue service for violation of any of the above outlined requirements. Service will not be connected until approved by the State Electrical Inspector.

**Tullahoma Utilities Board
901 South Jackson Street
P.O. Box 788
Tullahoma, TN 37388
(931) 455-4515**

Addendum 2002-01
to the
Tullahoma Utilities Board
Electric Service Requirements Handbook
Dated May 1, 2000

Effective July 1, 2002

Page 4, Section I(B)(2) revise: The customer shall install an approved meter socket, which may be purchased by the customer at the Tullahoma Utilities Board Service Center, at a location on the building as designated by a TUB Electric System representative. The center line of the meter socket is to be installed 5 ½' above finished grade.

Page 4, Section I(B)(3) add: Residential services greater than 225 ampere must have either an integrated meter base/disconnect switch or a separate non-fused disconnect switch located on an outside wall and between the source and the meter. The disconnect switch must be capable of being locked open.

Page 6, Section II(C)(1)(b) revise: The customer shall install an approved meter socket, which may be purchased by the customer at the Tullahoma Utilities Board Service Center, at a location on the building as designated by the TUB Electric System representative. The centerline of the installed meter socket shall be 5 ½' above the finished grade.

Page 6, Section II(C)(f) add: Residential services greater than 225 ampere must have either an integrated meter base/disconnect switch or a separate non-fused disconnect switch located on an outside wall and between the source and the meter. The disconnect switch must be capable of being locked open.

Page 6, Section II(C)(2)(b) revise: The customer shall install the appropriate size and class meter socket, which may be purchased by the customer at the Tullahoma Utilities Board Service Center, for each meter location.

Page 8, Section III(B)(5) revise: The customer shall install an approved meter socket, which may be purchased by the customer at the Tullahoma Utilities Board Service Center. The centerline of the installed meter socket shall be 5 ½' above finished grade.

Page 8, Section III(B)(6) add: Residential services greater than 225 ampere must have either an integrated meter base/disconnect switch or a separate non-fused disconnect switch located on an outside wall and between the source and the meter. The disconnect switch must be capable of being locked open.

Page 9, Section IV(B)(2) revise: The customer shall install an approved meter socket, which may be purchased by the customer at the Tullahoma Utilities Board Service Center. The centerline of the installed meter socket shall be 5 ½' above finished grade.

Page 9, Section IV(B)(3) add: Residential services greater than 225 ampere must have either an integrated meter base/disconnect switch or a separate non-fused disconnect switch located on an outside wall and between the source and the meter. The disconnect switch must be capable of being locked open.

Page 10, Section IV(D)(1)(b) revise: The customer shall install an approved meter socket, which may be purchased by the customer at the Tullahoma Utilities Board Service Center, on the service pole at a location to be

determined by the TUB Electric System representative. The centerline of the installed meter socket shall be 5 ½' above finished grade. The customer shall attach rigid steel conduit to the meter socket with two steel locknuts and one approved conduit bushing. The conduit shall be secured to the service pole with a minimum of two, one-hole rigid conduit straps.

Page 10, Section IV(D)(2)(b) revise: The customer shall install the appropriate size and class meter socket, which may be purchased by the customer at the Tullahoma Utilities Board Service Center, for each meter location.

Page 19, Section VIII(B) add: 10. General power services greater than 200 ampere but less than 800 ampere must have a non-fused disconnect switch located on an outside wall and between the source and the meter. The disconnect switch must be capable of being locked open.

Page 19, Section VIII(C)(2) revise: The customer shall install the appropriate meter cabinet and/or instrument transformer cabinet, which may be purchased by the customer at the Tullahoma Utilities Board Service Center, for each meter location. Any fabricated cabinets by the customer or contractor must have prior approval of the TUB.

Page 22, Section X(B) add: 9. General power services greater than 200 ampere but less than 800 ampere must have a non-fused disconnect switch located on an outside wall and between the source and the meter. The disconnect switch must be capable of being locked open.

Page 22, Section X(C)(2) revise: The customer shall install the appropriate meter cabinet and/or instrument transformer cabinet, which may be purchased by the customer at the Tullahoma Utilities Board Service Center for each meter location. Any fabricated cabinets by the customer or contractor must have prior approval of the TUB.

NOTES