

ELECTRIC
SERVICE
REQUIREMENTS



TULLAHOMA
UTILITIES AUTHORITY

Tullahoma, Tennessee

November 2017

Revision 5

Contents

| | | |
|-------|--|----|
| I. | Procedures for Obtaining Electric Service: | 3 |
| II. | Residential Services (Overhead) | 4 |
| | A. Service Characteristics: | 4 |
| | Standard Overhead Service Entrance Installations: | 4 |
| | B. 4 | |
| | C. Other Residential Overhead Services:..... | 4 |
| | D. Tullahoma Utilities Authority Work Performance:..... | 5 |
| III. | Residential Services (Underground) | 6 |
| | A. Service Characteristics: | 6 |
| | B. Standard Underground Service Installations..... | 6 |
| IV. | Mobile and Manufactured Homes (Overhead)..... | 8 |
| | A. Service Characteristics: | 8 |
| | B. Standard Overhead Installations: | 8 |
| V. | Mobile and Manufactured Homes (Underground)..... | 9 |
| | A. Service Characteristics: | 9 |
| | B. Standard Service Installation:..... | 9 |
| | C. Underground Service Entrance Pole Installations:..... | 10 |
| VI. | Temporary Service Poles (Overhead) | 11 |
| | A. Service Characteristics: | 11 |
| | B. Standard Overhead Temporary | 11 |
| VII. | Temporary Service Poles (Underground)..... | 12 |
| | A. Service Characteristics: | 12 |
| | B. Underground Temporary Service Entrance Pole Installations: | 12 |
| | C. Underground Temporary Service Installations | 12 |
| VIII. | Primary Line Extensions | 14 |
| IX. | Commercial and Industrial Services..... | 15 |
| | A. Information needed for determination of service type: | 15 |
| | B. Customer Requirements, Overhead service (400A or less main panel):..... | 15 |
| | C. Customer Requirements, Underground service (400A or less main panel): | 16 |
| | D. Customer Requirements (Greater than 400A main panel): | 18 |
| X. | Recommended Service Conductors: | 20 |

I. Procedures for Obtaining Electric Service:

- A. Complete Service Availability Form at TUA Customer Service Department.
- B. Inform TUA of any unusual loads, locations, etc.
- C. Obtain a building permit and electrical permit from the City of Tullahoma Codes Department.
- D. Make service application, pay service charges, pay contribution in aid-of-construction charges, and deposits at TUA office.
- E. Obtain approval of the meter location from TUA representative.
- F. Install appropriate service entrance and metering equipment.
- G. Obtain an approval from the State of Tennessee Electrical Inspector.
- H. Obtain an approval certificate from the City of Tullahoma Codes Department.

The Tullahoma Utilities Authority 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.

TUA defines “service” as the delivery of electricity from a nearby utility transformer to a premise using service conductors, at or below 600V (secondary voltage). In cases where TUA has determined an appropriate utility transformer is not available or not nearby, then a primary line extension would be required as set forth in Section VIII.

This document is intended to be a guide to the general requirements set forth by the Tullahoma Utilities Authority and does not preclude TUA from adding additional requirements or waiving portions as individual cases may require.

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:

II. Residential Services (Overhead)

A. Service Characteristics:

The standard service delivered to residential dwellings is single phase, 120/240V center tapped from a multigrounded system with a total capacity of up to 400A.

Services greater than 400 amps or of a non-standard character shall be pre-approved by the Tullahoma Utilities Authority.

B. Standard 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 at a location on the building as designated by a the TUA Electric System representative. The center line of the meter socket is to be installed 5 ½' above finished grade.
3. Customer provides all service entrance conductors and main conductors.
4. Service Entrance Conductors: TUA allows only copper conductor (THW or THWN) between the aerial service drop and the meter base. Recommended conductors are listed in Section [X. Recommended Service Conductors](#). Service entrance conductors should have at least 24" of cable left outside of weatherhead to allow for connections and a drip loop.
5. Main Entrance Conductors: TUA allows only copper conductor (THW or THWN) between the meter base and the first disconnect. Recommended conductors are listed in Section [X. Recommended Service Conductors](#)
6. Customer is responsible for all grounding equipment, grounding conductor, and grounding connectors to properly ground according to NEC.
7. All installations must meet the current approved NEC and pass the State of Tennessee electrical inspection.

C. Other Residential Overhead Services:

1. Building Mounted: 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 following conditions must be met:

- a. TUA must approve attachment location and height of attachment.
 - b. The conduit shall have approved seal-tight couplings at the meter socket hub, and at any splices made in the conduit run.
 - c. Only two conduit sizes are approved for this purpose: 1 ¼" I.D. for 60 amps. and 100 amps. services; 2" I.D. for 200 amps. services.
 - d. Customer must provide a suitable attachment capable of holding the weight and tension of TUA overhead service wire.
 - e. Not allowed for services over 200A without special approval by TUA
2. Risers more than 42" over roof: Conduit risers may exceed 42" above roofline if the following conditions are met:
- a. TUA must approve installation.
 - b. The conduit shall have approved seal-tight couplings at the meter socket hub, and at any splices made in the conduit run.
 - c. Only two conduit sizes are approved for this purpose: 1 ¼" I.D. for 60 amps. and 100 amps. services; 2" I.D. for 200 amps. services.
 - d. Riser conduit must be either guyed or supported such that it provides a suitable attachment capable of holding the weight and tension of TUA overhead service wire.
 - e. Not allowed for services over 200A without special approval by TUA

D. Tullahoma Utilities Authority Work Performance:

- a. TUA will install and connect all cable from the point of origin to the top of the weatherhead when all 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. TUA will furnish, locate, install, and maintain the appropriate size transformer for adequate service. TUA shall also have access at all times to the transformer locations.

III. Residential Services (Underground)

A. Service Characteristics:

The standard service delivered to residential dwellings is single phase, 120/240V center tapped from a multi-grounded system with a total capacity of up to 400A.

Services greater than 400 amps or of a non-standard character shall be pre-approved by the Tullahoma Utilities Authority.

B. Standard Underground Service Installations

1. Customer requirements (trenching):

- a. Customer will be required to call for underground cable locates (811) and follow all cautions for digging near UG facilities. Customer will be responsible for any damages caused to TUA or other existing facilities.
- b. The customer shall furnish a trench that 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 TUA Electric System.
- c. The customer shall install Schedule 40 polyvinyl chloride (PVC) conduit in the trench.
- d. Service from a pole: At the pole the customer shall install a RGS 90-degree elbow and stub up a PVC conduit.
- e. Service from a pad mount transformer: The customer trench should terminate about 12-18" from pad mounted equipment.
- f. At the meter the customer shall install a RGS 90-degree elbow and shall install rigid galvanized 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 amps. service and below – 2 ½" conduit
 - 201 to 400 amps. service – 3" conduit
 - larger than 400 amp. services – to be determined on site by a TUA representative.
- g. The customer shall install a ¼" polypropylene rope in the conduit for cable pulling purposes.

2. Customer requirements (Service metering):

- a. The customer shall install an approved meter socket at a location on the building as designated by the TUA Electric System representative. The center line of the installed meter socket shall be 5 ½' above the finished grade.
- b. Customer provides main conductors (from meter base to main).

- c. Main Entrance Conductors: TUA allows only copper conductor (THW or THWN) between the meter base and the first disconnect. Recommended conductors are listed in Section [X. Recommended Service Conductors](#)
- d. Customer is responsible for all grounding equipment, grounding conductor, and grounding connectors to properly ground according to NEC.
- e. All installations must meet the current approved NEC and pass the State of Tennessee electrical inspection.
- f. **The customer shall inform TUA when the trench, conduit, and meter socket are ready for inspection by the TUA Electric System representative.** The customer or their representative shall be at the site during the inspection. Upon approval by TUA, the customer shall backfill the trench or a portion of trench as designated by the TUA representative.

3. Tullahoma Utilities Authority Work Performance:

- a. TUA will install and connect all cable from the point of origin to the line side of the meter socket when all 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. TUA will furnish, locate, install, and maintain the appropriate size transformer for adequate service. TUA shall also have access at all times to the transformer locations.

IV. Mobile and Manufactured Homes (Overhead)

A. Service Characteristics:

The standard service delivered to Mobile and Manufactured homes is single phase, 120/240V center tapped from a multi-grounded system with a total capacity of up to 200A.

No service will be allowed greater than 200A.

B. Standard Overhead 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 the TUA 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' galvanized anchor rod and expanding anchor plate.
5. The customer shall install an approved meter socket. The center line of the installed meter socket shall be 5 1/2' above finished grade.
6. Customer provides all service entrance conductors and main conductors.
7. Service Entrance Conductors: TUA allows only copper conductor (THW or THWN) between the aerial service drop and the meter base. Recommended conductors are listed in Section [X. Recommended Service Conductors](#). Service entrance conductors should have at least 24" of cable left outside of weatherhead to allow for connections and a drip loop.
8. Main Entrance Conductors: TUA allows only copper conductor (THW or THWN) between the meter base and the first disconnect. Recommended conductors are listed in Section [X. Recommended Service Conductors](#)
9. Customer is responsible for all grounding equipment, grounding conductor, and grounding connectors to properly ground according to NEC.
10. All installations must meet the current approved NEC and pass the State of Tennessee electrical inspection.

V. Mobile and Manufactured Homes (Underground)

A. Service Characteristics:

The standard service delivered to Mobile and Manufactured homes is single phase, 120/240V center tapped from a multi-grounded system with a total capacity of up to 200A.

No service will be allowed greater than 200A.

B. Standard Service Installation:

1. Customer requirements (trenching):
 - a. Customer will be required to call for underground cable locates (811) and follow all cautions for digging near UG facilities. Customer will be responsible for any damages caused to TUA or other existing facilities.
 - b. The customer shall furnish a trench that 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 TUA Electric System.
 - c. The customer shall install Schedule 40 polyvinyl chloride (PVC) conduit in the trench. The only approved conduit for Mobile home services is 2 1/2"
 - d. Service from a pole: At the pole the customer shall install a RGS 90-degree elbow and stub up a PVC conduit.
 - e. Service from a pad mount transformer: The customer trench should terminate about 12-18" from pad mounted equipment.
 - f. At the meter the customer shall install a RGS 90-degree elbow and shall install rigid galvanized steel conduit to the meter socket. The conduit shall be attached to the meter socket with two steel locknuts and one approved conduit bushing.
 - g. The customer shall install a 1/4" polypropylene rope in the conduit for cable pulling purposes.
2. Customer requirements (Service metering):
 - a. The customer shall install an approved meter socket at a location on the metering structure as designated by the TUA Electric System representative. The center line of the installed meter socket shall be 5 1/2' above the finished grade.
 - b. Customer provides main conductors (from meter base to main).
 - c. Main Entrance Conductors: TUA allows only copper conductor (THW or THWN) between the meter base and the first disconnect. Recommended conductors are listed in Section [X. Recommended Service Conductors](#)

- d. Customer is responsible for all grounding equipment, grounding conductor, and grounding connectors to properly ground according to NEC.
- e. All installations must meet the current approved NEC and pass the State of Tennessee electrical inspection.
- f. **The customer shall inform TUA when the trench, conduit, and meter socket are ready for inspection by the TUA Electric System representative.** The customer or their representative shall be at the site during the inspection. Upon approval by TUA, the customer shall backfill the trench or a portion of trench as designated by a TUA representative.

C. Underground Service Entrance Pole Installations:

1. Standard installation: 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 30" below finished grade. The pole location is to be determined on site by the TUA Electric System representative.
2. Alternate installation: The customer may use (2) 4x4 treated posts erected with a treated backing board between them so long as the structure meets TUA approval.
3. The customer shall install an approved meter socket. The center line of the installed meter socket shall be 5 ½' above finished grade.

VI. Temporary Service Poles (Overhead)

A. Service Characteristics:

Temporary services will be allowed for construction purposes and short term needs. If a service is anticipated to be needed for more than 180 days, TUA requires a permanent service unless TUA grants an extension.

The standard service delivered Temporary Service Poles is single phase, 120/240V center tapped from a multi-grounded system with a total capacity of up to 200A.

No Temporary Service will be allowed greater than 200A.

B. Standard Overhead Temporary

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 TUA 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 the 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 the pole against the tension of TUA 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.
6. Customer provides all service entrance conductors and main conductors.
7. Service Entrance Conductors: TUA allows only copper conductor (THW or THWN) between the aerial service drop and the meter base. Recommended conductors are listed in Section [X. Recommended Service Conductors](#). Service entrance conductors should have at least 24" of cable left outside of weatherhead to allow for connections and a drip loop.
8. Main Entrance Conductors: TUA allows only copper conductor (THW or THWN) between the meter base and the first disconnect. Recommended conductors are listed in Section [X. Recommended Service Conductors](#)
9. Customer is responsible for all grounding equipment, grounding conductor, and grounding connectors to properly ground according to NEC.
10. All installations must meet the current approved NEC and pass the State of Tennessee electrical inspection.

VII. Temporary Service Poles (Underground)

A. Service Characteristics:

Temporary services will be allowed for construction purposes and short term needs. If a service is anticipated to be needed for more than 180 days, TUA requires a permanent service unless TUA grants an extension.

The standard service delivered Temporary Service Poles is single phase, 120/240V center tapped from a multi-grounded system with a total capacity of up to 200A.

No Temporary Service will be allowed greater than 200A.

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 TUA 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 Schedule 80 or equivalent conduit on the pole from 12" below grade to the weatherhead and secures the conduit with rigid metal conduit straps.

C. Underground Temporary Service Installations

1. Customer requirements (trenching):
 - a. Customer will be required to call for underground cable locates (811) and follow all cautions for digging near UG facilities. Customer will be responsible for any damages caused to TUA or other existing facilities.
 - b. The customer shall furnish a trench that 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 TUA Electric System.
 - c. The customer shall install Schedule 40 polyvinyl chloride (PVC) conduit in the trench. The conduit must be 2 ½"
 - d. Service from a pole: At the pole the customer shall install a RGS 90-degree elbow and stub up a PVC conduit.
 - e. Service from a pad mount transformer: The customer trench should terminate about 12-18" from pad mounted equipment.
 - f. At the meter the customer shall install a RGS 90-degree elbow and shall install rigid galvanized steel conduit to the meter socket. The

conduit shall be attached to the meter socket with two steel locknuts and one approved conduit bushing.

- g. The customer shall install a ¼” polypropylene rope in the conduit for cable pulling purposes.

2. Customer requirements (Service metering):

- a. The customer shall install an approved meter socket at a location on the building as designated by the TUA Electric System representative. The center line of the installed meter socket shall be 5 ½’ above the finished grade.
- b. Customer provides main conductors (from meter base to main).
- c. Main Entrance Conductors: TUA allows only copper conductor (THW or THWN) between the meter base and the first disconnect. Recommended conductors are listed in Section [X. Recommended Service Conductors](#)
- d. Customer is responsible for all grounding equipment, grounding conductor, and grounding connectors to properly ground according to NEC.
- e. All installations must meet the current approved NEC and pass the State of Tennessee electrical inspection.
- f. **The customer shall inform TUA when the trench, conduit, and meter socket are ready for inspection by the TUA Electric System representative.** The customer or their representative shall be at the site during the inspection. Upon approval by TUA, the customer shall backfill the trench or a portion of trench as designated by the TUA representative.

VIII. 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. The cost will be calculated in accordance with Tullahoma Utilities Authority Policy E-001.
- B. An agreement between TUA and the requester will be executed prior to TUA making any part of the installation.
- C. The contribution in-aid-of construction must be paid before material will be ordered and/or work will begin.
- D. The primary line extension policies apply to all customers or applicants of electric service from TUA.
- E. The customer shall furnish a right-of-way easement for primary line extension and transformer as specified by the TUA representative prior to TUA making any part of the installation.
- F. The customer shall clear the power line right-of-way of trees and obstructions as specified by the TUA representative prior to TUA performing any part of the installation.
- G. The customer shall furnish trenching and conduit on the underground primary line extensions as specified by the TUA representative. The customer is responsible for backfill of the trench and repairs of any future trench settling.

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

IX. Commercial and Industrial 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 TUA Power Service Contract (if required)
11. Power line right-of-way easement as specified by the TUA representative.
12. Complete set of stamped drawings with site utility plan, mechanical sections, electrical sections, and electrical panel board schedule.

B. Customer Requirements, Overhead service (400A or less main panel):

This service will typically be served from a self contained meter socket.

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 WITH BYPASS at a location on the building as designated by a the TUA Electric System representative. The center line of the meter socket is to be installed 5 ½' above finished grade.
3. Customer provides all service entrance conductors and main conductors.
4. Service Entrance Conductors: TUA allows only copper conductor (THW or THWN) between the aerial service drop and the meter base. Recommended conductors are listed in Section [X. Recommended Service Conductors](#). Service entrance conductors should have at least 24" of cable left outside of weatherhead to allow for connections and a drip loop.
5. Main Entrance Conductors: TUA allows only copper conductor (THW or THWN) between the meter base and the first disconnect. Recommended conductors are listed in Section [X. Recommended Service Conductors](#)

6. Customer is responsible for all grounding equipment, grounding conductor, and grounding connectors to properly ground according to NEC.
7. All installations must meet the current approved NEC and pass the State of Tennessee electrical inspection.
8. 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: 2" I.D. for 200 amps. Services, 2 1/2" for 400 amps.
9. TUA Must approve attachment location.
10. Customer must provide a suitable attachment capable of holding the weight and tension of TUA overhead service wire.

11. Tullahoma Utilities Authority Work Performance:

- a. TUA will install and connect all cable from the point of origin to the top of the weatherhead when all 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. TUA will furnish, locate, install, and maintain the appropriate size transformer for adequate service. TUA shall also have access at all times to the transformer locations.

C. Customer Requirements, Underground service (400A or less main panel):

This service will typically be served from a self-contained meter socket.

1. Customer requirements (trenching):

- a. Customer will be required to call for underground cable locates (811) and follow all cautions for digging near UG facilities. Customer will be responsible for any damages caused to TUA or other existing facilities.
- b. The customer shall furnish a trench that 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 TUA Electric System.
- c. The customer shall install Schedule 40 polyvinyl chloride (PVC) conduit in the trench plus one (1) spare conduit of equal size.
- d. Service from a pole: At the pole the customer shall install a RGS 90-degree elbow and stub up a PVC conduit.
- e. Service from a pad mount transformer: The customer trench should terminate about 12-18" from pad mounted equipment.
- f. At the meter the customer shall install a RGS 90-degree elbow and shall install rigid galvanized 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 amps. service and below – 2 ½” conduit

201 to 400 amps. service – 3” conduit

larger than 400 amp. services – to be determined on site by a TUA representative.

- g. The customer shall install a ¼” polypropylene rope in the conduit for cable pulling purposes.

2. Customer requirements (Service metering):

- a. The customer shall install an approved meter socket at a location on the building as designated by the TUA Electric System representative. The center line of the installed meter socket shall be 5 ½’ above the finished grade.
- b. Customer provides main conductors (from meter base to main).
- c. Main Entrance Conductors: TUA allows only copper conductor (THW or THWN) between the meter base and the first disconnect. Recommended conductors are listed in Section [X. Recommended Service Conductors](#)
- d. Customer is responsible for all grounding equipment, grounding conductor, and grounding connectors to properly ground according to NEC.
- e. All installations must meet the current approved NEC and pass the State of Tennessee electrical inspection.
- f. **The customer shall inform TUA when the trench, conduit, and meter socket are ready for inspection by the TUA Electric System representative.** The customer or their representative shall be at the site during the inspection. Upon approval by TUA, the customer shall backfill the trench or a portion of trench as designated by the TUA representative.

3. Tullahoma Utilities Authority Work Performance:

- a. TUA will install and connect all cable from the point of origin to the line side of the meter socket when all 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. TUA will furnish, locate, install, and maintain the appropriate size transformer for adequate service. TUA shall also have access at all times to the transformer locations.

D. Customer Requirements (Greater than 400A main panel):

1. Customer shall provide detailed plans and estimated loading.
2. Install service conductor, grounding, conduit, termination cabinets, instrument transformer cabinets, and metering cabinets as per specifications of TUA, which are calculated from the customer provided information.
3. Provide a readily accessible point on the building for termination of TUA service (overhead or underground).
4. Identify all phase conductors (on three phase installations) with lettering or tape markings throughout the entire installation.
5. Single phase installations shall have black insulation on the hot conductors and white insulation on the neutral conductor.
6. 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.
7. 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 the transformer(s). TUA will terminate the customer's service conductors at the transformer(s) or meter cabinet.
8. The customer shall provide a concrete pad for pad mount transformer applications meeting TUA specifications that will be furnished at later date.
9. The customer shall install the meter cabinet on the building being serviced by TUA at a height and location specified by TUA. Meter sockets or cabinets will not be attached to the pad mount transformer or poles.
10. The customer shall furnish and install a 5/8" x 8' grounding electrode at the meter cabinet and bond the cabinet to the electrode with a continuous run of No. 4 solid bare copper grounding conductor. This additional ground is for metering and cabinet purposes.
11. Tullahoma Utilities Authority Work Performance:
 - a. TUA 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 of Tennessee electrical 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 disconnect switch to the transformer(s). TUA

will terminate the customer's service conductors at the transformers or meter cabinet.

- b. Any fabricated cabinets by the customer or contractor must have prior approval of TUA.
- c. TUA will furnish, locate, install, and maintain the appropriate size transformer(s) for adequate service. TUA shall have access at all times to the transformer(s) location.
- d. TUA will inform the customer or contractor of any charges for work or materials at each service installation.

X. Recommended Service Conductors:

TUA maintains connectors to accommodate various conductors, but by selecting one of the recommended conductors below the customer can ensure that we have the correct connectors.

1. 60 Amps. 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.
2. 100 Amps. 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.
3. 200 Amps. 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.
4. 225 Amps. 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.
5. 400 Amps. 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.

Tulahoma Utilities Authority
901 South Jackson Street, P.O. Box 788
Tulahoma, TN 37388
(931) 455-4515
www.tullahomautilities.com