Greeneville Energy Authority

Electric Meter Service Requirements

General Requirements

1.1 Definitions

Greeneville Energy Authority d.b.a. Greeneville Light and Power System (GEA)
Nation Electric Code NFPA 70 (NEC) – current edition adopted by the State of Tennessee
National Electrical Safety Code (NESC) – current edition in publication
International Building Code (IBC) – edition adopted by local jurisdiction including any amendments

1.2 Equipment / Guidelines

A. All electric meter bases or multi-unit meter centers shall be placed at a location approved by GEA Engineering Department prior to installation. Failure to contact GEA Engineering department prior to placement of metering equipment may result in customer relocation of equipment at their own cost and could delay service connection.

B. All GEA metering equipment shall be readily accessible to GEA employees at all times. This accessibility includes vehicle access for maintenance and testing. Metering equipment shall be exterior to buildings or customer served equipment and shall not be enclosed by future additions or placement of customer equipment, fences, landscaping or other impediments. Failure to maintain GEA employee access to metering equipment, or unauthorized modification to metering equipment can result in disconnection of electric service. Contact GEA Engineering department prior to construction of any addition that may violate this condition.

C. Any electrical work, including meter service installations, shall pass inspection by local authorities who may enforce the NEC, NESC or IBC prior to connection by GEA employees.

D. All individual meter bases shall be installed at 4 feet to 6 feet to the center as measured from *finished* grade. Multi-unit meter centers shall be placed so that the center of the meter sockets will be a maximum of 6 feet above and a minimum of 2.5 feet above *finished* grade.

E. The maximum single-phase, socket metered service is 400A. Single-phase Class 320 socket meter bases must have a meter bypass lever. The maximum three-phase, socket-metered service is 200A. Three phase socket meter-bases must have a meter bypass lever. Non “S” base sockets are not permitted. All larger services will be metered using instrument transformers (See 1.4). The customer or their representative will supply anticipated loading information to GEA Engineering Department along with the proposed service size. GEA Engineering employees will review this information and determine the appropriate metering solution. It will be the customer’s responsibility to securely mount all metering equipment to customer’s structure.

F. In addition to conditions of 1.2.B above, prior to any construction of a structure under GEA overhead supply conductors, the customer or their representative shall contact GEA Engineering Department to determine if NESC clearances can be maintained. Any structure that compromises NESC clearance resulting in relocation or replacement of GEA facilities will have all costs borne by the customer. This could include decks, outbuildings, walkways, swimming pools or any number of other types of additions.

G. Customers or their representatives shall under no circumstances tamper with any sealed metering equipment or any source side conductors or equipment. Seals of such equipment are not to be cut by anyone except GEA employees in performance of their work. Cutting seals or tampering of any kind can result in immediate service disconnection and monetary penalties, as well as possible legal action. Power theft and tampering are against the law.

H. Exterior of meter bases, cabinets and conduits may be painted. Meter, control equipment or conductors shall not be painted or otherwise obscured.

I. Notwithstanding any access issues to GEA metering equipment outlined above, there shall be maintained a 3-foot clear working space in front of any meter base or multi-unit meter center. This includes temporary or permanent plantings, fencing or any other hindrances to access.

J. Installations where multiple meter centers are used must have permanent labeling affixed indicating the suite number or load description. Labels should be placed such that there is no confusion if more than one meter cover is removed.

K. Conductor “trough” enclosures must not be used.

1.3 Operations

A. The service point or point of demarcation between GEA and the customer shall be established as follows:

1) For overhead services, the point where GEA conductors are spliced to customer supplied conductors at the weather head shall be the point of demarcation. All equipment comprising the electrical service, including the meter base, past the point of demarcation shall be property of the customer except the meter itself. GEA owns and maintains the meter. This rule applies to self-contained, socket type meter bases. This rule does not specifically apply to instrument metering installations.

2) For underground services, the termination of GEA conductors to the lugs of the meter base shall be the point of demarcation. All equipment comprising the electrical service, including the meter base, past the point of demarcation shall be property of the customer except the meter itself. GEA owns and maintains the meter. This rule applies to self-contained, socket type meter bases. This rule does not specifically apply to instrument-rated metering installations. An exception to this rule applies to non-standard underground services where a pedestal is used per GEA Non-Standard

Underground Service Requirements. A hand out sheet with specifications is available from the GEA Engineering Department. The demarcation with this type of installation shall be at the point of connection between GEA conductors and the customer supplied conductors within the pedestal.

B. Types of services are classed by requested service voltage and amperage of connected panels. Self-contained, socket metered services are limited to the following list. Voltages or amperage of service beyond these limits shall require instrument type metering.
   1) 120/240V Single-phase service up to 400A
   2) 120/208V and 120/240V Three-phase service up to 200A

C. While GEA does not actively look for access violations as listed in section 1.2.B and 1.2.G above, any time GEA employees encounter limited or no access in the performance of work, the above rules will be enforced. Site specific considerations may rarely result in exceptions to these rules, but the customer or their representatives should at all times expect them to be enforced as written.

1.4 Instrument Rated Meter Center Requirements

Overhead Services

A. Customer must purchase and install meter socket and instrument transformers from GEA.
B. Customer to install meter socket and instrument transformers per utility guidelines.
C. 1” metal conduit must be installed between meter socket and instrument transformers.
D. Customer must bond meter socket to service equipment ground.
E. Instrument transformers must be mounted with the white dot (H1) electrically facing the source (utility) side.
F. Rigid conduit must be used if service attachment is placed on riser.
G. Customer must adhere to any applicable utility installation guidelines.

Underground Services

A. Customer must purchase and install meter socket and metering cabinet from GEA.
B. Pedestals for instrument rated metering must be constructed using galvanized, stainless, or pressure treated posts.
C. 1” metal conduit must be installed between meter socket and instrument rated metering cabinet.
D. Customer must bond metering cabinet to service equipment ground.
E. Meter socket should be mounted to one side of metering cabinet.
F. Transformer attached pad metering is acceptable provided no additional customers will be served using the same transformer.
G. Customer must adhere to any applicable utility installation guidelines.