8.0 METER INSTALLATIONS

8.01 GENERAL

Meters and meter testing devices are furnished, installed and maintained by the Company. They remain the property of the Company and shall not be moved or the connections changed by any person other than authorized employees of the Company.

All metering shall be installed on the line side of the Customer's main disconnecting means except for a 480Y/277 volt metering installation where the Company requires a meter disconnect ahead of the meter or where the NEC requires a main disconnect ahead of a group more than six (6) meters. See Figures 42, 43 and 45 for self-contained, 480Y/277 volt, 4-wire metering installations. Consult Company prior to purchasing or installing equipment.

Meter sockets, metering transformer cabinets and all other enclosures and switchboxes installed on the line side of the meter shall be equipped with provisions to accept a Company meter seal before connection will be made by the Company. Meter sockets, transformer cabinets, and other meter service enclosures are not to be used by the Customer as junction boxes—only service entrance conductors are permitted. Metered and unmetered conductors shall **not** be installed in the same conduit, enclosure or raceway. Any energized meter socket must be properly covered at all times when the meter is not in place. Meter sockets and service conduits shall **not** be recessed into the wall.

The Company, in accordance with the rate schedule selected and the type of service supplied, determines the capacity and type of meter installation to accommodate the Customer's load.

8.02 METER LOCATIONS

The Customer shall provide space for the installation of the Company's meters and equipment at an outside location designated by the Company. Outdoor meter locations are required for all meters except where the Company gives approval otherwise.

For residential single-family, duplex and townhouse dwellings, the meter socket shall be located outside within 15 feet of the nearest corner of the dwelling to the Company facilities. If this location is not feasible due to physical obstructions, such as garage doors or windows, the Company will choose an alternate location closest to its service facilities (see Figure 40).

The meter socket shall be installed so that the top of the socket is not more than 5'-6" or less than 4'-0" above the finished grade. The Customer shall provide at least 15" of clear space on all sides of the meter as well as 30" in front of the meter. The above clearances shall be maintained regardless of structural changes of the building. The Company will not accept a meter to be located in an area which could be dangerous to meter readers or testers, or where conditions would prevent the meter person from standing in front of the meter to test or read. Meters, meter sockets and metering transformers shall not be located in a manhole or any similarly classified location.

A meter may be located on a Customer-owned pole with prior Company approval. This pole shall be yellow pine, cedar or equivalent, pressure-treated and provide proper clearances (see Figure 1). Before installing pole, consult the Company (1-800-255-3443) for proper size and setting depth (see Figures 5, 6, and 7). Any metering installation on a Company-owned pole shall have the specific written approval of the Company.

8.03 METER RELOCATIONS

When alterations or additions to a building or its wiring require a change in meter location, the Customer shall notify the Company before proceeding with any work. The Customer may be responsible for the Company's costs for facility modifications. The Customer shall be responsible for all costs incurred in moving the socket and wiring.

8.04 EMERGENCY METER REMOVAL

Firefighters and other emergency personnel **SHALL NOT** remove electric meters during fires or other emergencies. Removing a meter **MAY NOT** de-energize the building or contribute to the safety of firefighters or emergency personnel.

8.05 GROUP METER INSTALLATION

In serving groups of residential or commercial installations, provisions may be made to group meters at a single location that will be accessible to the tenant and to the Company (see Figures 43, 44 & 45).

The Customer is responsible for permanently labeling each meter socket with its corresponding apartment, office, etc. being served. Labeling shall be by stenciled paint, engraving, stamping or riveted metal tag.

In large buildings, special conditions may make it desirable to group, on each floor or area, the meters for individual Customers located on that floor or area. Detailed plans of such installations shall be submitted to the Company for approval before construction is started or equipment purchased.

When it is necessary that the Customer install a main/service disconnecting means because of the number of meters, this disconnecting means shall be sealed and the Customer will be permitted to break the switch seals only for the purpose of replacing fuses or for maintenance. In such instances, the Customer shall promptly notify the Company that the seals have been broken.

8.06 TRANSFORMER-RATED METER INSTALLATIONS

All transformer-rated metering enclosures (including metering current and voltage transformers) shall be pre-wired and furnished by the Company and installed by the Customer. Consult the Company for details (see Figures 47, 48 & 49).

Provisions shall be made for the installation of metering transformers for single-phase or 3-phase services in excess of 320 amperes. Metering transformers are normally installed on the line side of all service protective equipment, except where the NEC requires a main disconnect ahead of the metering.

When overhead service is provided, the metering transformer(s) will normally be of the outdoor-type and mounted sufficiently high, on the outside of the building, so that a transformer enclosure is not required (see Figures 11 & 50).

When a busway is used for the service entrance conductors, the Customer shall mount metering transformers, furnished by the Company, in the busway.

Metering transformers may be installed in Customer-owned transformer vaults, cubicles, switchgear or on switchboards, when prior arrangements are made with the Company. Meters, meter sockets and metering transformers shall not be located in a manhole or any similarly classified location.

Sufficient access and working space shall be provided and maintained about all metering equipment. The meter socket shall be located outside and be mounted so that the top of the socket is between 5'-6" maximum and 4'-0" minimum above finished grade and within 30' (cable length) of the current transformers.

If changes are made on the premises, thereby making the existing meter location unsafe or inaccessible for reading or testing, the Customer shall be required to make the necessary changes to correct the situation.

Customer-owned equipment **shall not** be connected in the secondary metering circuit.

8.07 TRANSFORMER-RATED METERING AT PAD-MOUNTED TRANSFORMER

The preferred location for transformer-rated metering will be at the Company-owned, pad-mounted transformer. The Customer shall be required to provide all facilities on the load side of the metering. For remote metering communication requirements see Section 8.08. The Company shall be consulted regarding necessary space requirements and equipment to be furnished and installed by the Customer.

8.08 METERING COMMUNICATIONS

The Company may require remote interrogation of metering when the assigned rate schedule deems interval metering is required. When the Company deems remote interrogation is required, the following shall apply:

(a) Transformer Rated Metering At Pad-Mounted Transformer
Customer shall furnish and install a 1-1/4" conduit and 1/4" nylon or polypropylene pulling rope from the secondary compartment of the pad-mounted transformer to a location at the Customer's building where telephone line service can be made available at the telephone company's demarcation point. Once the conduit from the pad-mounted transformer enters the building, cable may be used to the demarcation point or the conduit may be continued to the demarcation point (See Figures 24, 28, and 29). **Consult Company for details prior to installation.**

(b) Transformer Rated Metering – Cabinet or Channel Package
Customer shall provide access (cable or conduit) to the telephone company facilities (demarcation point) within 5 feet of the meter socket on the same wall surface exclusively for Company remote metering purposes. Conduit shall be a minimum 1-1/4" diameter, with a 1/4" nylon or polypropylene pulling rope from the meter point to the telephone company facilities (See Figures 23, 48, 49 and 50). **Consult Company for details prior to installation**.

8.09 SEALS

The Company will seal all meters and points of access to the wiring, ahead of the meter. All cabinets, switchboxes, terminal boxes, etc., either inside or outside the building, which contain unmetered wires, shall be made sealable by the Customer before service will be supplied. Where equipment is not arranged for sealing, 1/8" diameter holes shall be provided by the Customer for sealing purposes. All service entrance conduit fittings used outside the building ahead of the meter shall have non-removable covers. All such fittings used inside the building ahead of the meter, if not of the non-removable cover-type, shall be drilled for sealing. The Company prohibits the **breaking** of Company seals by unauthorized persons, or tampering with meters or with any wiring equipment located ahead of the meter.

9.0 METER SOCKETS

9.01 GENERAL

A self-contained meter socket will be used for single-phase and 3-phase electric service not exceeding 320 amperes at service voltages less than 600 volts. All meter sockets shall be of the ring-less type and conform to Section 9.05 METER SOCKET SPECIFICATIONS.

A self-contained meter socket shall be an outdoor-type, weatherproof construction, Underwriter's Laboratories (UL) listed, suitable for overhead or underground installation and plug-in type meter. The enclosure shall be a minimum of 16-gauge galvanneal or zinc coated steel or 14-gauge aluminum with painted finish. Provision shall be made for sealing by wire and padlock.

Meter sockets shall be securely mounted in a true vertical position on a wall or other support with a minimum of four (4) corner fasteners. For non-masonry structures, meter sockets shall be secured to bracing installed between exterior wall studs with 1/4" lag screws (or No. 12 sheet metal screws) embedded 1-1/2" into the wood. Where secured to brick or other masonry, 1/4" lag screws (or No. 12 sheet metal screws) with lead anchor shields embedded 1-1/2" into the masonry shall be used. For manufactured homes (HUD approved) mounted on a permanent foundation, meter sockets shall be mounted to the exterior wall studs using the center hole positions in the socket. Meter sockets and service conduits **shall not** be recessed into the wall. All cable or conduit connections on the top of the meter socket shall be rain tight. The socket shall be mounted so that the top of the socket is between 5'-6" and 4'-0" above the finished grade.

9.02 COMPANY-FURNISHED METER SOCKETS

The Company will furnish meter sockets for the following: (See Section 9.03 for Customer-furnished meter sockets)

(a) Transformer-rated meters.
(b) Meter sockets mounted on 3-phase, pad-mounted transformers.
(c) Meter sockets **shall not** be installed on single-phase, pad-mounted transformers.
(d) **WEST VIRGINIA ONLY**: All self-contained, single-position meter sockets will be furnished by the Company and installed by the Customer. The Customer shall obtain the Company's approval, prior to purchase, for installation of other than Company-supplied meter sockets.