

ELECTRIC POLICY

INTRODUCTION

This policy has been adopted by the Board of Public Works as a guide to obtaining electric service and to set forth the services available, conditions for service, and standards for materials and construction in the customer's electric installation. The standards for materials and construction are necessary to safeguard all customers and to secure maximum utilization of Macon Municipal Utilities' (MMU) service and are the minimum under which MMU will supply service. The primary purpose of this policy is for the protection of customer premises and the public and the adherence to the National Electric Code, fire, and other city codes. The following policies will be a part of every contract made to supply electric service. All persons receiving such service shall be bound by the provisions of this policy.

CHAPTER I – GENERAL

A. APPLICATION FOR SERVICE

100. The term “customer”, when used herein, shall mean any person applying for, receiving, using, or agreeing to take a class of electric service supplied by MMU under one rate schedule at a single point of delivery and for use within the premises occupied by or used by such person.

101. An application for service shall be required from each customer in accordance with the General Rules and Regulations.

102. MMU will supply electric service only after the customer's application for service has been approved and MMU finds it practicable to render such service. MMU reserves the right to refuse or discontinue electric service when wiring or electrical equipment on the premises being served is found to be unsafe.

103. Electric service to each customer shall be for the sole use of such customer at the premises described in the application for electric service, and resale of electric energy by such customer is prohibited. All electric service furnished to any customer at any single premise shall be furnished through a single meter.

104. Electric service provided by MMU is subject to the requirements set forth in ordinances of the city relating to electrical installations, inspections, licensing, and permits, MMU's General Rules and Regulations, and the National Electrical Code.

105. The breaking of seals, tampering with meters, wires, or any other property of MMU by other than authorized agents of MMU is prohibited.

106. No person shall steal electricity from a customer of MMU or be given permission by an MMU customer to use electricity that violates fire code.

B. DUSK TO DAWN SECURITY LIGHTING

106. MMU may provide unmetered automatic dusk-to-dawn lights in accordance with a schedule of charges established by the Board of Public Works. If it is required of MMU to set a pole for the specific purpose of mounting the light, there will be an extra charge as noted on the New Construction Fee Sheet.

C. ATTACHMENT TO POLES

107. Attachments, including posters, signs, wires, and other equipment and devices, to poles or equipment will not be permitted except upon specific written authority. The attachment of radio or TV antennae is specifically prohibited. Attachments of communications circuits such as telephone or cable TV systems may be made provided a joint use contract has been entered into between MMU and those desiring to make such attachments.

D. TREE TRIMMING AND REMOVAL

108. The customer shall permit MMU to trim the limbs and tops of trees on the customer's property as reasonably necessary to avoid interference with the electric lines. MMU will remove only limbs and trees that interfere with or endanger electric primary and secondary service lines.

E. STREET LIGHTING

109. Street lights will be provided and maintained by MMU according to the following general criteria:

1. Intersections of developed streets, or
2. Cul-de-sac (platted dead end streets) where the cul-de-sac is not less than 500 feet and at least two occupied homes are located on the half of the street nearest the dead end, or
3. Intermediate locations on streets that exceed 600 feet between developed intersections. Street lights on such streets shall have a spacing of no less than 300 feet.

110. Requests for street lights at locations not conforming to these general criteria may be made to the Board of Public Works for its approval or rejection based upon consideration of the general welfare of the citizens of the City of Macon.

111. There may be existing lights within the City that do not fit this policy. It is the intent of the Board that new street light installations shall conform to this policy. The Board also recognizes that there are certain areas within the City that require closer spacing of street lights due to high traffic. Lighting in these areas will be considered on a case by case basis by the Board.

CHAPTER II – SERVICE ENTRANCE POLICIES AND REQUIREMENTS

A. GENERAL PROVISIONS

200. Architects, engineers, contractors, builders, etc. are required to consult in advance with MMU or the Electrical Department to obtain any special specifications and directions for the proposed service entrance.

201. To avoid expensive alterations at a later date, the service entrance should be adequate for future growth as well as for present requirements. As a minimum, all new service entrances must have a minimum capacity of 100 amperes. Premises with electric heat or central air conditioning must have a minimum capacity of 200 amperes. It is the CUSTOMER'S RESPONSIBILITY to install service equipment in accordance with the provisions of the National Electric Code as a minimum.

202. MMU will make only one service connection to a customer's premises, except where required by the customer's load being of such size and character and so located as to make it appropriate, in the opinion of MMU, to install more than one service connection.

203. In serving any customer, MMU will, at its sole option and subject to its General Rules and Regulations:

1. Determine the point and character of electrical service from which it will supply such a customer;
2. Approve the location of the customer's entrance and the design of the electrical system to this location from MMU supply point; and
3. Modify MMU facilities to suit the customer's desires, if practicable. The customer may be required to make a capital contribution for any excess cost.

B. SERVICE ENTRANCE WIRING

204. Contractors and others installing electrical work are to balance the load on three-wire and four-wire systems. This is advantageous to the customer as well as to MMU because it will give the customer better voltage regulation and maximum use of service entrance equipment.

205. The neutral wire of single-phase, three-wire 120/240 volt, four-wire 120/208Y volt, and one wire of three-wire 240 or 480 volt alternating current services shall be grounded on the customer's premises by the customer. This ground shall be made wye means of an outside ground rod. All ground wires and rods shall be copper clad, with minimum size No. 6 bare copper wire and five-eighths (5/8) inch by eight foot copper ground rods.

206. The neutral ground conductor is to be the same size as the phase conductors.

207. Clearances of service drop conductors shall be governed by the NEC 230-24.

C. METERING

208. The meter installation and entrance shall generally be located on the customer's structure at a suitable place as approved by MMU. MMU will size the meter installation to the customer's load. Access for MMU personnel must be maintained to ensure proper maintenance of the service. All meters on a building shall be at a common location and properly marked to indicate the premises served.

209. MMU will own, install, and maintain the meters and metering devices. Meter sockets, provided by MMU, will be installed by the customer.
210. There will be no indoor meters except by the written permission from MMU.
211. The following govern the location of meters:
1. All meter locations shall be approved by the electrical inspector.
 2. Metering equipment is to be located outside where it is not subject to vibration or jarring, nor subject to gases, dust, fluids, etc. that may affect the accuracy of the meter.
 3. Meters shall not be installed within 36 inches of windows or doors.
 4. Meters shall not be located above platforms that are not accessible by stairs.
 5. When meters are to be located in a passageway or narrow space, the clear space in front of the meter shall not be less than three feet.
212. All new metering installations must meet the requirements of this section before any service will be connected by MMU personnel.
213. The type of meter installed will be dictated by whether not the customer requires a single phase or three phase service. Additionally, customers that have a Demand of 100 kW or over plus those that have a Net Metering agreement will require the appropriate metering system.

D. OVERHEAD SERVICE

213. The point of attachment of MMU drop to the customer's building or mast must be of proper height and location to provide at all points in the span the minimum clearances above ground and from other wires and obstructions required by the National Electric Code and other applicable rules.
214. The customer is to provide, in the construction of his building, a suitable service attachment of not less than two inch galvanized rigid conduit when extending through the roof and not less than two inch Electrical Metal Tubing, two inch Intermediate Metal Tubing, two inch aluminum, or two inch PVC conduit, when the mast is not supporting service drop.
215. The customer shall provide and install conduit and conductors from his service entrance and equipment to the meter socket, install the meter socket provided by MMU, and provide and install a conduit riser and weather head and service conductors to attach to the service drop and also provide and install a ground wire and ground rod consisting of not less than No. 6 bare copper wire and a ground rod no smaller than five-eighths (5/8) inch by eight feet. MMU will provide and install the service drop. The customer's service conductors shall run from the meter socket through the service conduit riser with 24 inches of conductor extending from the weather head to provide for connection to the service drop with an adequate drip loop. The minimal size of the service conductor shall be No. 2 copper or No. 1/0 aluminum wire for 100 amp service or No.3 copper or No. 4/0 aluminum wire for a 200 amp service. MMU will make the connections to the customer's service conductors and install the meter.

E. UNDERGROUND SERVICES

216. If requested in advance by the customer, MMU may install single phase underground electric service.

217. MMU will install the underground service and if using a trencher and will refill the trench. Leveling of the soil and grass replacement will be the customer's responsibility. Boring will be used to install the underground service if deemed the best method by MMU.

218. The cost to the customer for an underground service will be as noted on the New Construction Fee Sheet.

F. RESIDENTIAL, COMMERCIAL, AND INDUSTRIAL AVAILABLE SERVICE VOLTAGES

219. MMU will make available two, grounded wye three phase voltages of 120/208y or 277/480y.

CHAPTER III – UTILIZATION EQUIPMENT

A. GENERAL PROVISIONS

301. In order to assure uniformly satisfactory service to all customers, it is important that the requirements for customers utilization equipment contained herein be followed by the customer. The customer shall use the electric service supplied by MMU with due regard to the effect of such service on its other customers and on the facilities and equipment of MMU. The MMU Supervisor of Electric Distribution or designee may refuse to supply electrical service, or may suspend electric service, to customer without notice if the customer's installation is in an unsafe or dangerous condition, or is so designed or operated as to disturb the electric service supplied by MMU to other customers.

302. When lightning arresters are installed by the customers, they must either be connected to his facilities on the load side of his main entrance fuses or circuit breakers, or be of the ground lead disconnecting type.

B. COMMERCIAL/INDUSTRIAL – STARTING LIMITATIONS

303. Single-phase, 120/240 volts. Starting inrush for single or multiple motors shall be limited at any instant to 50 amperes at 120 volts or 150 amperes at 240 volts. The running power factor of motors shall not be less than 85 percent. All 20 horsepower motors or larger shall be required to have capacitors or step starting.

304. For three-phase, 60 hertz motors to be operated from a 240 or 480 volt supply, the permissible starting inrush is limited by the effect on other motors and on the distribution systems of the customers and MMU. The customer must notify MMU of the maximum size and type of motor to be served as well as the aggregate of all motor loads so the utilities may ensure proper service to all customers on its affected distribution system. For three phase, 60 hertz motors to be operated from a 120/208 volt, four-wire supply, the permissible starting inrush is limited by the effect on lighting and other equipment connected at 120 volts and on the distribution system of the customer and MMU. The customer must notify the electrical inspector of the maximum size and type of motor to be served, the aggregate of all motor loads, and the type of lighting and other equipment to be served at 120 volts so MMU may ensure proper service.

C. MOTOR PROTECTION

305. MMU utilizes single phase switches and single-phase fuses in its distribution system. Accordingly, the customer must protect all three-phase motors and equipment from a single-phase operating conditions. In addition, suitable protection must be provided by the customer for all motors in

accordance with the National Electrical Code in order to protect motor and equipment from improper or dangerous operation due to motor overloads or the failure to start.

306. All motors shall be protected against overload by the installation of adequate over-current, thermal protective devices or their equivalent. Three-phase motors shall have protective devices in all three phases.

307. Three-phase motors that operate apparatus that may be subjected to damage due to a reversal of rotation shall be protected with reverse-phase relays.

308. MMU shall not be responsible for any damage to the customer's equipment due to improper protective devices, the improper functioning of protective devices, or for improper motor protection on existing installations noted herein.

D. POWER FACTOR AND DEMAND

309. A commercial/industrial's power factor should be 95% or greater. Power factor is the ratio of real power usage and apparent power. For customer's that notice is provided and the power factor is not improved, the Board reserves the right to assess financial penalties as there is a cost to MMU distribution system to correct for the poor power factor.

310. MMU will assess a demand capacity charge for customers that have a capacity need of 100 kW or greater. Demand will be billed through monthly utility billing on a rolling 12 months cycle. If demand exceeds the baseline reading a new 12 month cycle will begin.

E. OTHER

309. Any new wiring, including additions or alterations, in commercial buildings shall be in conduit or mc cable.

310. If a customer uses his building wiring as a carrier system for communication or signaling purposes, the customer shall install suitable electrical filtering equipment to keep MMU distribution facilities free from his carrier frequency currents.

CHAPTER IV – LINE EXTENSION POLICY

311. MMU will extend overhead or, at its option, underground service, at no cost to the customer provided easements are made available.

312. The location of easements for all lines shall be approved by MMU.

CHAPTER IV – GENERATORS AND NET METERING CUSTOMERS

314. Prior to a generator being installed that has the ability to place electricity on the MMU distribution system, a fee must be paid and a permit must be received from MMU.

315. Per MMU's policy on Net Metering Service and Electrical System Integration adopted on October 15, 2012 customers are allowed by RSMo 386.890.3 to install renewable generation facilities and utilize the MMU distribution system for storage.