



Electric System  
Service Rules  
City of Mascoutah,  
Illinois

This ordinance shall supersede all prior ordinances. Should there be a conflict between this ordinance and previous ordinance.

# **CITY OF MASCOUTAH ILLINOIS**

## **ELECTRIC SYSTEM**

### **SERVICE RULES**

#### **FOREWORD**

This publication has been prepared by the City of Mascoutah (City), as a reference and guide to its regulations, practices, and general requirements for the connection of electric service facilities and utilization equipment. It is provided for the use of customers, contractors, consultants and other persons engaged in the planning or construction of buildings and the installation or replacement of equipment connected to and served by the City electrical system.

This publication is not intended to be a comprehensive manual for all wiring details and other lawful requirements. It is, rather, prepared as a guide and supplement to the National Electric Code, the National Electrical Safety Code, and City.

The publication of these Electric System Service Rules shall not be construed as relieving the customer, or his or her contractor, from the responsibility of properly installing wiring in accordance with the rules and regulations of any authority having jurisdiction. The City shall not be deemed under any circumstances to have accepted any responsibility for the condition of the customer's wiring and equipment.

Continuing developments in the utility industry periodically bring about changes and improvements. In general, the result of these changes and improvements has been to provide better and more dependable electric service. Accordingly, the City reserves the right to make changes and modifications to these Electric System Service Rules when, in its judgement, such changes are necessary and in the best interest of its customers and the City.

The comfort and convenience of electric services is best obtained by providing a safe and adequate wiring installation. To insure sufficient electrical capacity to enjoy future appliances and equipment, electric wiring systems installed today should be adequately planned to meet the needs of tomorrow.

Questions relating to the design, layout, power quality, and availability of service should be directed to the City.

## **DECLARATION OF LIMITATIONS**

Where the City determines it is in the best interest of public safety, the customer, or the efficient operation of the electric system, the City hereby reserves the right to make certain determinations that may be contrary to these Electric System Service Rules.

Nothing in these Service Rules shall be construed to undermine reasonable engineering and operational principles and practices.

## **TABLES OF CONTENTS**

SECTION 1.	DEFINITIONS .....	6
SECTION 2.	ACCEPTANCE OF SERVICE RULES.....	8
SECTION 3.	ACCESS TO ELECTRICAL UTILITY FACILITIES.....	8
SECTION 4.	APPLICATION FOR SERVICE .....	9
SECTION 5.	DISCONTINUANCE OF SERVICE.....	9
SECTION 6.	BALANCING LOADS.....	10
SECTION 7.	CHARACTER OF SERVICE.....	10
SECTION 8.	CUSTOMER-OWNED GENERATION.....	11
SECTION 9.	COMMERCIAL AND INDUSTRIAL SERVICE.....	12
SECTION 10.	COMMERCIAL AND INDUSTRIAL INSTALLATIONS - GENERAL DESIGN GUIDELINES.....	14
SECTION 11.	CONSTRUCTION PROCEDURES .....	14
SECTION 12.	CONTRACT OUTDOOR LIGHTING .....	16
SECTION 13.	CUSTOMER EQUIPMENT .....	16
SECTION 14.	CUSTOMER RESPONSIBILITY FOR CITY PROPERTY AND CLEARANCES .....	17
SECTION 15.	DAMAGE TO DEPARTMENT-OWNED FACILITIES.....	18
SECTION 16.	EASEMENTS .....	18
SECTION 17.	ELECTRICAL UTILITY FACILITY INSTALLATION .....	19
SECTION 18.	EQUIPMENT FURNISHED AND MAINTAINED BY THE CITY.....	19
SECTION 19.	INFRASTRUCTURE AVAILABILITY CHARGE.....	20
SECTION 20.	INTERRUPTION OF SERVICE.....	20
SECTION 21.	JULIE.....	20
SECTION 22.	METERING.....	21
SECTION 23.	ELECTRIC MOTOR INSTALLATIONS.....	25

SECTION 24. PLANS AND DRAWINGS ..... 25

SECTION 25. POWER FACTOR/POWER QUALITY ..... 26

SECTION 26. PROTECTION OF CUSTOMER-OWNED EQUIPMENT ..... 27

SECTION 27. RATES ..... 27

SECTION 28. RESIDENTIAL SERVICE ..... 27

SECTION 29. SPECIAL EQUIPMENT ..... 29

SECTION 30. STREET LIGHTING ..... 29

SECTION 31. TEMPORARY SERVICE ..... 29

SECTION 32. TREE TRIMMING ..... 30

## SECTION 1. DEFINITIONS

### 1.1. Words and phrases

- 1.1.1. Auxiliary Generation Equipment: Customer-owned Generation Equipment that is not connected to the City grid.
- 1.1.2. Character of Service: The voltage, frequency, capacity and number of phases supplied or available.
- 1.1.3. City Electric Department: Responsible for the transmission and distribution of Energy to the Customer.
- 1.1.4. City Electric Department Supervisor: The person responsible for the design, layout, engineering operation and maintenance of the electric distribution system.
- 1.1.5. City Utility Billing Department: The department responsible for utility billing.
- 1.1.6. Customer: Any person using electrical energy supplied by the City by means of connection to its electric distribution system. Term used to describe the responsible party for a residential or commercial customer, including the resident, owner, sub divider, builder, and/or developer.
- 1.1.7. Customer-owned Generation Equipment: Any equipment that generates Energy that is owned, operated, and maintained by the Customer.
- 1.1.8. Electrical Contractor: Any person, firm or corporation engaged in the business of installing, maintaining, or altering, by contract or otherwise, electrical equipment for the use of electric energy supplied for light, heat, or power in any building or structure which is, or will be, connected with the City's electric distribution system.
- 1.1.9. Electric Distribution System: The wires, cables, poles, meters, and apparatus forming a part of the system of or by which electric energy is transmitted, distributed, and metered by the City.
- 1.1.10. Electrical Installation: The installation of electric wiring or equipment in any premises for the use of electric energy distributed by the City.
- 1.1.11. Energy: Electricity used for lighting, heating, or power purposes.
- 1.1.12. Facilities: The wires, cables, poles, meters and apparatus forming a part of the system of or by which electric energy is transmitted and distributed by the City.
- 1.1.13. Meter Socket and Trough: The mounting device consisting of jaws, connectors, and enclosure for socket-type meters. The mounting device may be either a single socket or a trough. The trough and assembled

enclosure may be extendible to accommodate more than one mounting unit. This equipment is approved for installation by the City and is owned and maintained by the Customer.

- 1.1.14. National Electric Code (NEC): The latest revision of the National Electric Code of the National Fire Protection Association (NFPA 70) as approved by the American National Standards Institute and adopted by the City.
- 1.1.15. National Electrical Safety Code: The latest revision of the National Electrical Safety Code by the Institute of Electrical and Electronics, Inc. and approved by the American National Standards Institute.
- 1.1.16. Nominal Voltage: A specific voltage value assigned to a circuit or system for the purpose of convenient designation.
- 1.1.17. Parallel Generation Equipment: Customer-owned Generation Equipment that is connected to the City grid.
- 1.1.18. Permanent Service: The installation of either overhead or underground service to an established electric Customer at the Service Point.
- 1.1.19. Person: Any person, partnership, co-partnership, firm, company, limited liability company, corporation, association, joint stock company, trust, estate, political subdivision, state agency, or any other legal entity, or its legal representative, agent or assigns.
- 1.1.20. Power Factor: The relationship (ratio) between the active power and the volt amperes in any particular alternating current circuit.
- 1.1.21. Premises: A building, structure, or enclosure to which energy is transmitted from the electric distribution system by the City.
- 1.1.22. Primary Voltage: The voltage on the supply side of a transformer.
- 1.1.23. Secondary Voltage: The voltage on the load side of a transformer.
- 1.1.24. Service: The conductors for delivery electric energy from the electric distribution system to the Service Entrance Equipment of the Premises served.
- 1.1.25. Service Entrance Equipment: The equipment used for metering and disconnection at the Service Location.
- 1.1.26. Service Location: The physical location of the Service Entrance Equipment.
- 1.1.27. Service Point: Point of connection of the City Service to the Customer's equipment, and the limit of the City's responsibility.
- 1.1.28. Structure: An object which is constructed or erected requiring permanent location on land.

- 1.1.29. Temporary Service: The installation of a service of a temporary nature, usually for construction purposes, for a period of time not to exceed one (1) year from the date on which the temporary service is installed unless construction schedule warrants extended period of time.
- 1.1.30. Building Inspection/Permits: The organization in the City which incorporates all aspects of commercial, residential, and capital development projects. The Public Works Director is responsible for the review and issuance of permits, inspections, and code compliance.
- 1.1.31. Utilization Equipment: Any Customer-owned equipment, apparatus, appliance or device located on a Customer's Premises or used by a Customer which requires Energy.
- 1.2. Words and phrases not specifically defined above shall be defined according to a standard dictionary, the National Electrical Code, the National Electrical Safety Code or the City Building Code, as applicable.

## SECTION 2. ACCEPTANCE OF SERVICE RULES

- 2.1. Any person making application for, connecting to, accepting, or using City electrical service by connecting an end user to the City's electrical distribution or transmission facilities shall thereby agree to conform to and abide by all the City's ordinances, rules, and regulations for the operation of electrical system, including electric wiring, appliances, equipment standards, permits, and inspections.

## SECTION 3. ACCESS TO ELECTRICAL UTILITY FACILITIES

- 3.1. Any properly authorized agent of the City shall have free access to the Customer's premises at all reasonable hours for the purpose of reading, examining, inspecting, repairing, replacing or removing City meters or other equipment or property.
- 3.2. No Customer shall build a deck, porch, patio, addition, or plant trees/shrubs, etc. over, around, or otherwise block access to existing City facilities; the Customer shall maintain an 18" side clearance from the underground Service conductors from the City facilities to the meter. See Section 22 for meter clearance and access requirements.
  - 3.2.1. The City may relocate its facilities to accommodate a Customer's need where:
    - 3.2.1.1. The Customer makes a written request for the relocation of City facilities and agrees to pay all costs associated with such relocation;  
*and*
    - 3.2.1.2. The City determines that it is technically feasible to relocate its facilities to accommodate the Customer's request.
  - 3.2.2. Any Customer blocking access to any City facilities shall be given written notice of such violation and shall be allowed fifteen (15) days within which to provide for appropriate corrective action approved by the City.

- 3.2.3. Any violation of this Section not corrected within the specified time may be corrected by the City, and the customer shall be billed for all costs associated with such corrective action. Violations that the City is not able to correct shall be turned over the City Manager's Office.
- 3.3. To safely operate the electrical system, the City hereby reserves the right to remove any trees, bushes, fences, or other obstructions located on a Customer's property which may block access to existing City facilities. City is not responsible for replacement or reconstruction of any obstructions removed by the City.
- 3.4. Fences and other obstructions shall not be placed to restrict reading and maintenance of the City's meters. Where meters are located beyond locked doors or padlocked gates, the customer's locking device shall have a keyway for dual key capacity that accommodates a City lock. Variations must have written authorization from the City.

#### SECTION 4. APPLICATION FOR SERVICE

- 4.1. Application for a new or modified electric service connection or the connection, or reconnection, of an existing service shall be made to the City, using the "Application for Service" form.
- 4.2. All such applications shall contain a description of the Premises to be served, including the electrical load(s) and locations of any existing electrical facilities on the property. For residential applications for new electric service, the Application for NEW Residential Electric Service shall be completed.
- 4.3. Where new electrical installations, additions or alterations are contemplated, inquiry should be made in advance of design or purchase of equipment relative to available voltage, point of delivery and extension of the City's Distribution System.

#### SECTION 5. DISCONTINUANCE OF SERVICE

- 5.1. The City may refuse to provide or may discontinue service for violation of any of its service policies; for failure to pay charges for electric service when delinquent (to the extent of state law); for theft or illegal diversion of energy; for situations that constitute a safety hazard or for code violations.
- 5.2. The discontinuance of service for any cause does not release the Customer from the obligation to pay for energy received or for charges otherwise specified.
- 5.3. A service that has been discontinued due to theft, illegal diversion, unsafe conditions, or damage to City metering equipment shall be upgraded to current codes by the Customer before service is reconnected.

- 5.4. The City reserves the right and authority to vary from policy when failure to pay charges for electric service when delinquent; for violation of rate schedule or contract provisions; for theft or illegal diversion of energy; for situations that constitute a safety hazard or for code violations. The City may open and tag customer disconnects in these situations. Violating such disconnecting or tagging may result in permanently disconnecting the service and will compound customer costs and legal actions respective to the situation.
- 5.5. The City may terminate any Customer's service if the City determines the Customer's equipment is causing or may cause damage to the City's equipment or facilities, or that the Customer's continued connection to the City's system may cause power quality problems for any other City customer.

## SECTION 6. BALANCING LOADS

- 6.1. All electric loads within a service shall be balanced.
- 6.2. Where three-phase services are provided, single-phase loads shall be evenly divided between each of the three phases.
- 6.3. Where single-phase services are provided, the load shall be evenly divided between the energized conductors.

## SECTION 7. CHARACTER OF SERVICE

### 7.1. Normal Service

- 7.1.1. All service supplied by the City shall be alternating current at a nominal voltage and a frequency of approximately 60 Hz. The City system design for normal operation includes Total Harmonic Distortion (THD) limited at 5% for the fundamental frequency and voltage of the application at the Service Point as defined by the City. Individual voltage distortion at a Service Point shall not be greater than 3%.
- 7.1.2. The City hereby disclaims any liability for and does not guarantee to maintain the accuracy of the nominal values under all conditions.
- 7.1.3. Nominal values will, however, for practical purposes, normally be found to be within reasonable limits.

### 7.2. Standard Classes of Service

- 7.2.1. All Customers shall contact the City before designing electrical service. Not all voltage characteristics are available in all service areas.
- 7.2.2. The City will provide the following secondary service where the specified voltages are available either from existing facilities or from facilities planned for the requested location:

7.2.2.1. Nominal Class of Service

Phases	Wires	Voltage	Use
1	3	120/240	Lighting & Appliances
3	4	120/208	Light & Power
3	4	277/480	Light & Power
3	3	120/240	Light & Power

7.2.2.2. There are areas within the City's service area where nonstandard secondary networks exist. New services will not be supplied from nonstandard secondary networks.

7.2.2.3. Primary voltages are also available for services to large Customers with loads in excess of 500 kW. Customers shall consult with the City for the availability and conditions of such services. Primary services shall not be delivered at a voltage level above 13.80 kV.

7.3. Service Limitations

7.3.1. The City shall not provide more than one standard class of service to any single structure.

7.3.2. Three phase service shall not be provided for loads less than 60 kW.

7.3.3. Customers are hereby advised that since the class of service supplied depends on the location and character of the load, all Customers shall obtain the specific characteristics of available service(s) before proceeding with the design, purchase and installation of any equipment and wiring facilities.

7.3.4. Information concerning the specific characteristics of available service(s) may be obtained from the City Electric Department Superintendent.

7.3.5. Any exceptions to these limitations shall be pre-approved by the City Electric Department Superintendent.

SECTION 8. CUSTOMER-OWNED GENERATION

8.1. Auxiliary Generation

8.1.1. The Customer shall not use any other electric power or lighting service, including standby generators, in conjunction with the City's service without the written consent of the City. Such written consent may be granted at the sole discretion of the City if the Customer has critical operations where standby service is desirable.

8.1.2. All Customer-owned generation equipment, including traditional combustion, photovoltaic (PV), wind, or any alternate means of electrical energy generation must meet the appropriate national electrical standards

(NEC, NESC, etc.), local codes (building, fire, etc.), and all applicable permits must be obtained by the Customer.

8.1.3. Where the Customer provides for an auxiliary power supply, an adequately-sized, “double-throw disconnecting device” must be provided to open all ungrounded conductors from the normal supply before connection is made to the emergency supply in accordance with the requirements of the latest edition of the NEC. This disconnect, external to the building structure, shall be installed per the latest City standards, and shall be appropriately labeled as to its function.

## 8.2. Parallel Generation

8.2.1. All auxiliary generation equipment that will be interconnected with the City grid will require a separate written agreement between the Customer and the City. The equipment must meet all standards for auxiliary equipment, as well as any applicable City standards. Requirements for the operation of parallel generation are included in the City Interconnection Policy.

8.2.2. When the City determines that the Customer has parallel generation equipment that requires a separate and dedicated distribution feeder, the engineering, installation, coordination, and protection of the said feeder will be performed at the Customer’s expense.

## SECTION 9. COMMERCIAL AND INDUSTRIAL SERVICE

9.1. The Customer shall consult with the City before selecting any service location.

9.2. In accordance with all Municipal Codes, the City shall install facilities adequate to supply and meter a normal load equal to the maximum fifteen (15) minute demand of the Customer. Such facilities shall be installed only at a single point of delivery.

9.3. To avoid expensive alterations later, the service entrance should be sized for future growth as well as for present requirements. It is the Customer’s responsibility to install service equipment in accordance with NEC provisions as a minimum. An important provision of the current edition of the NEC recommends that “Service equipment shall be suitable for the short-circuit current available at its supply terminals.” In order for architects, engineers and wiring contractors to select proper service equipment to meet NEC guidelines, the following information will apply to new installations.

9.4. A standard underground commercial or industrial installation shall consist of a padmount transformer or a utility point of service connection, which shall be located between five feet (5’) and fifty feet (50’) from the service entrance and be accessible by truck. Variation must have written authorization from the City.

- 9.5. If the metering cabinet, meter and main service disconnect are freestanding, they must be located no more than fifteen feet (15') from the transformer. Variations must have written authorization from the City.
- 9.6. The Customer or property owner shall be solely responsible for the ownership, installation, and maintenance of a concrete transformer pad and/or vault, which shall be constructed and maintained in accordance with the City's specifications. No structures, fences, or trees/shrubs shall be placed within ten feet (10') of the front and five feet (5') from the sides with a vertical clearance of thirty feet (30') from the top of final grade at the transformer location. Transformers cannot be enclosed.
- 9.7. The Customer or property owner shall install concrete filled, eight-inch (8") steel protection posts to protect the service transformer and the metering installation where the City determines that it is required for safety. Upon the Customer's written request, the City may approve other forms of protection.
- 9.8. For overhead service, the Customer or property owner shall install, maintain, and replace as necessary the overhead meter socket, entrance conduit, entrance wire, weatherhead, point of attachment, and applicable equipment in accordance with the City and NEC standards.
- 9.9. The City will install, maintain, and replace as necessary, all permanent commercial overhead services from the City's power pole to the Customer's point of attachment at the drip loop of the service.
  - 9.9.1. The City shall make the final connection between the utility point of service after City inspection and approval. Customer to provide adequate length of service conductors as determined by the City.
- 9.10. The City shall approve the size and number of service conductors proposed to be connected to any City facility for the purpose of the availability of secondary connections.
- 9.11. The Customer or property owner shall be solely responsible for the ownership, installation, maintenance, and replacement of Service Entrance Equipment in accordance with the City.
  - 9.11.1. All electric meters shall be mounted on the pad mounted transformer or the outside wall of the structure.
  - 9.11.2. Every electric meter shall be located so that there will be no obstructions for meter reading, meter testing, or other maintenance. Under no circumstances shall metering equipment be placed within a locked area.

## SECTION 10. COMMERCIAL AND INDUSTRIAL INSTALLATIONS - GENERAL DESIGN GUIDELINES

- 10.1. The City shall provide only one point of electrical service for each structural unit. For multi-unit commercial/industrial sites, each address is considered a structural unit.
- 10.2. The City shall not provide more than one standard class of service to any single structure.
- 10.3. The City shall approve all service entrance equipment before installation. Such approval should be granted before the Customer places an order for the purchase and/or manufacture of any equipment.
- 10.4. All new electrical metering and equipment installations shall be located on the outside wall of the structure served in one location.
- 10.5. Where individual, commercial, metered services are provided, the Customer shall install a main mechanical load-breaking device (disconnect or circuit breaker), which may be operated by the City as needed or required. Variations must have written authorization from the City.

Where up to and equal to 1200 amps are provided:

- Such main mechanical load breaking devices shall be physically located outside of the structure served and adjacent to the instrument cabinet and meter socket. Electrically, it shall be located on the load side of the meter socket, except where there are multiple banked meters that share a single main disconnect. Variations must have written authorization from the City.

Where more than 1200 amps are provided:

- Such a main mechanical load-breaking device and associated instrument cabinet may be installed inside of the structure served.
- Meter sockets must be installed on the outside wall of the structure served, within fifty feet (50') of the instrumentation cabinet. Variations must have written authorization from the City.

## SECTION 11. CONSTRUCTION PROCEDURES

- 11.1. Nothing contained in the standards shall require the City to install area feeder circuits underground or require any part of its existing Distribution System to be placed underground.
- 11.2. The Customer shall provide the City with a construction schedule so the electric system can be installed in an orderly and timely manner. This shall be provided at the associated pre-construction meeting.

- 11.3. Lots and easements shall be brought to within four inches (4") of final grade and all other underground utilities located beneath the electric facilities shall be installed prior to the installation of the underground electric system.
- 11.4. The Customer shall provide the City with a clear, unobstructed access across the property as required for the installation of the electric distribution facilities.

Prior to the actual installation of electrical facilities, the developer or customer shall provide:

Final grade ( $\pm 4"$ ) (where utility facilities will be installed);

- The signed Agreement for the Construction and Installation of the Electric System;
  - Staking for all lots located in the subdivision or development;
  - Lot number on stakes;
  - Easements;
  - Payment of the Facility Installation Charge;
  - Payment of the Contribution in Aid of Construction charge (when applicable);
  - Catalog cuts for approval of metering equipment (when available).  
***Attention: Failure to complete any of the above items may result in construction delays.***
- 11.5. The Customer shall be solely responsible for the cost of moving or rebuilding any facilities as a result of error or changes.
- 11.6. The Customer shall install all crossing conduits needed for City utilities before the road base/curbing is constructed.
- 11.6.1. The Customer shall provide the City with thirty (30) days written notice to make the necessary street crossing installation(s).
- 11.6.2. Where the Customer fails to coordinate such installations with the City, they shall be ultimately responsible for any extra expenses incurred by the City as a result of boring, tunneling, street repairs, etc.
- 11.7. When rock or ledge is encountered less than thirty-six inches (36") below grade, the Customer shall be solely responsible for any added costs to install the underground electric facilities.
- 11.8. When, in the sole judgment of the City, difficult installation conditions exist, such as rock, ledge, frost, etc., the City shall not be bound by any construction schedule which may have been stated, written or otherwise implied.

- 11.9. The Customer shall be solely responsible for the removal of any and all trench or construction spoils caused by the City or its contractor resulting from the installation of on-site electric facilities.
- 11.10. Prior to the start of construction, the Customer shall arrange with the City for a site inspection to determine the suitability of the site. Such determination shall be made at the sole discretion of the City.
- 11.11. The Customer shall be solely responsible for any extra costs incurred by the City to remobilize the City's construction crews if such work is stopped because the City determines that a portion of the site is not suitable for construction of City facilities.
- 11.12. The City shall schedule its work after all fees are received, necessary easements granted, service equipment is approved, and the project site is ready as determined by the City.

## SECTION 12. CONTRACT OUTDOOR LIGHTING

- 12.1. Contract outdoor security lighting shall be available to any Customer using City electric service for unmetered outdoor lighting, provided that the Customer has signed a written agreement with the City. This service is only available in areas currently served by overhead electric distribution, and is not for the purpose of lighting the public right-of-way or parking lots.
- 12.2. A complete description of the contract terms and rates is included in Section 11-1-1 of the City Municipal Code. The Customer is to contact the City Utility Billing Department in order to initiate a request for contract outdoor lighting.

## SECTION 13. CUSTOMER EQUIPMENT

- 13.1. As determined by the City, the Customer shall select and install only motors, apparatus, and devices which are suitable for operation with the character of the service available and supplied by the City.
- 13.2. The City hereby reserves the right with Customer consent to gain access to, inspect and test any Customer-owned equipment which is connected to the City's system.
- 13.3. The City shall be the sole authority to determine whether any Customer-owned equipment connected to the City's system causes or may have a deleterious effect on the quality of service provided by the City to its customers.
- 13.4. The City hereby reserves the right and authority to require the Customer to install, at the Customer's sole expense, any such wiring and equipment which the City determines is required to prevent any deleterious effects on the quality of service provided by the City to its customers.
- 13.5. In the event that the City determines Customer-owned equipment needs repair, it shall be the responsibility of the Customer to repair the deficiency or disconnect the equipment from the City within 60 days of notification. Should the necessary

repairs not be completed within the specified amount of time, the City Manager's Office will be contacted and fines may apply. If the equipment poses a safety hazard, the City reserves the right to disconnect service. Variations must have written authorization from the City.

- 13.6. The City will require a Customer to provide, at Customer's expense, special or additional equipment when a Customer's use of electric facilities results in an interference with the quality of the Customer's own service or that of neighboring customers, as determined by the City.

#### SECTION 14. CUSTOMER RESPONSIBILITY FOR CITY PROPERTY AND CLEARANCES

- 14.1. Breaking of seals, tampering with meters, wires or any other property belonging to the City by unauthorized representatives of the City is prohibited and may be punishable by law.
- 14.2. The Customer, at all times, shall protect the property of the City on the premises of the Customer and shall not permit anyone other than representatives of the City and other persons authorized by law to inspect, work on, open or otherwise handle the wires, meters or other City Facilities. In case of loss or damage to City property due to carelessness, neglect or misuse by the Customer, their family, agents, servants or employees, the Customer shall pay to the City the cost of any necessary repairs or replacements of such Facilities or the value of such Facilities.
- 14.3. Swimming pools (above or below grade) shall be constructed to provide a minimum distance of 10 feet as measured horizontally, from the vertical plane containing the nearest part of the pool or wading area, diving platform, deck or similar structure to vertical plane containing the nearest electrical conductor or equipment. Conductors are prohibited from passing over or under all pools and their associated decks.
- 14.4. Attachments of any kind or nature shall not be permitted on City poles without previous execution of the City's Pole Attachment Agreement.
- 14.5. Care shall be taken by the Customer in the installation of antennas near City power lines such that under all conditions, the installation will not be under or fall across City lines nor contact them in any way that may be considered hazardous to life or property.
- 14.6. The Customer is responsible for providing clearances as specified in the National Electric Safety Code when constructing structures on their property.

- 14.7. The location of buildings, structures (requiring building permit) or mobile equipment is prohibited above or beneath the City's Distribution System and within utility easements or rights-of-way.
- 14.8. The Customer shall be liable to the City for costs of any repairs or replacement of City Facilities located on the Customer's premises or projects that are lost or damaged due to change in characteristics of the Customer's load that have not been reported to the City.

#### SECTION 15. DAMAGE TO DEPARTMENT-OWNED FACILITIES

- 15.1. Any person working in an area containing the City's equipment or electric facilities shall be solely responsible to take whatever precautions are necessary to avoid damaging such facilities.
- 15.2. Any person causing damage to the City's equipment or facilities shall be solely responsible for any costs incurred to repair such damage.

#### SECTION 16. EASEMENTS

- 16.1. Property owners shall dedicate by plat or grant by written agreement, public utility easements to the City for the City's use for the construction, maintenance, and replacement of its facilities as required.
- 16.2. The Customer shall provide and/or describe at no cost to the City, all rights-of-way and easements required for the City's primary and secondary conductors, pad-mounted transformers, secondary pedestals and any other facilities that may be required to serve the Customer. The grading must be within 4 inches of final grade, with lots pinned or staked and the easement cleared of all trees, stumps and obstructions before the City begins construction. Excessive spoils (rock, tree, temps, etc.) resulting from the installation of the City's Distribution System will be the responsibility of the Customer to remove. Access for City vehicles shall be provided to all City facilities prior to sodding, landscaping and fencing.
- 16.3. All required easements shall be dedicated or granted without cost to the City. This shall include any additional or relocated easements which may be required by the City due to circumstances or conditions unforeseen prior to the beginning of construction.
- 16.4. Standard easements shall customarily follow property lines.
  - 16.4.1. If such customary easement location is not possible due to field conditions, such as hills, slopes, obstructions, etc., required easements shall be located in the nearest flat, clear area which will insure the safety of the individuals and equipment while installing, operating or maintaining City facilities.

Easements at least fifteen feet (15') wide along all front lot lines, and ten feet (10') wide along all rear lot lines shall be required for each lot in a proposed residential subdivision, or as required by the City.

Easements at least fifteen feet (15') wide along all sides, front, and rear property lines and along routes of electric facilities shall be required for all non-residential developments, or as required by the City. Blanket easements are preferred.

- 16.5. Special circumstances dictate the need for additional easements in certain cases.
- 16.6. Easements shall be shown and recorded on the subdivision plat.

#### SECTION 17. ELECTRICAL UTILITY FACILITY INSTALLATION

- 17.1. All new facilities shall be installed so that they are capable of being looped.
- 17.2. The City hereby reserves the right to install temporary or emergency facilities in the most economical manner using reasonable engineering principles and practices.

#### SECTION 18. EQUIPMENT FURNISHED AND MAINTAINED BY THE CITY

- 18.1. The City or its approved contractor shall construct and install all new on-site electric distribution systems requested by the Customer or required by the provisions of the Municipal Code to serve the Premises in new or existing subdivisions or developments.
- 18.2. All such distribution systems shall be constructed in conformity with the requirements of the National Electric Safety Code.
- 18.3. The owner, subdivider, builder, developer, and Customer shall be jointly and severally responsible for the payment of the Facility Installation Charge, which includes the estimated cost and expense for the construction and installation for all such on-site electric distribution systems.
- 18.4. All estimated costs and expenses for the construction and installation of all such on-site electric distribution systems shall be due and payable; per written agreement signed by both parties (City and Customer) before any construction work is scheduled by the City
- 18.5. Where City-owned facilities need to be relocated or upgraded due to any development, redevelopment, rehabilitation, addition, site modification, increase in load, or Customer request, all required work including but not limiting, the costs therefore shall be fully reimbursed at the sole expense of the requesting party.
- 18.6. Where a request for the construction and installation of new on-site electric distribution systems involves exceptionally high costs for equipment, special equipment, or facilities which may require a long period of time to manufacture or construct, the City, at its sole discretion, may require the Customer to pay for the required equipment before the City orders such items.

## SECTION 19. INFRASTRUCTURE AVAILABILITY CHARGE

- 19.1. Costs associated with the extension of, or addition to, the City's Distribution System must be recovered by the City or justified by some combination of the following, as determined by the City.
  - 19.1.1. City's Distribution System will be enhanced or be made more reliable.
  - 19.1.2. The extension is not solely for the benefit of the requesting Customer and will serve future Customers.
  - 19.1.3. The anticipated revenue to be received after implementation of the extension or addition will offset the City's investment within 3 years.
  - 19.1.4. The Customer submits a Contribution to Aid Construction, prior to start of work, for costs of the extension or addition as determined by the City.
- 19.2. The City will determine the feasibility of a proposed system expansion or addition prior to undertaking the work.
- 19.3. It shall be the responsibility of the Customer to provide any information and/or property surveying as required for any work.

## SECTION 20. INTERRUPTION OF SERVICE

- 20.1. Insofar as practical, planned interruptions of service in the normal course of business will be prearranged with the Customer.
- 20.2. The City hereby reserves the right to curtail or temporarily interrupt a Customer's service where the City determines that repairs, replacement, or modification of the City's facilities are required either on or off the Customer's premises.
- 20.3. The City hereby reserves the right to interrupt a Customer's service in the case of emergencies or whenever such interruption is required to comply with an order from any jurisdictional authority.
- 20.4. The City shall not be liable for any loss or damage to property resulting directly or indirectly from any interruption or termination of electric service for any reason.

## SECTION 21. JULIE

- 21.1. In accordance with State statute, the City of Mascoutah is connected to the JULIE Illinois One Call System.
- 21.2. All requests for locating underground facilities should be directed to JULIE at 1-800-892-0123 (or dial 811 from any phone within the State of Illinois) prior to the beginning of any excavation.

## SECTION 22. METERING

### 22.1. General

22.1.1. All electricity furnished by City systems shall be metered unless the Customer has Customer's use of energy.

22.1.2. The City shall furnish, own, and maintain all metering equipment or other equivalent control means through which electric service is supplied.

22.1.3. The Electric Meters shall be within 1% accuracy for any installation.

### 22.2. Meter Locations

22.2.1. The City shall determine and designate all meter locations for new, modified, or rehabilitated installations.

22.2.2. All meters shall be located outdoors with appropriate environmental ratings. Variations must have written authorization from the City.

22.2.3. Meters shall be located to facilitate the setting, changing, testing, and reading of the meters. They shall not be covered, enclosed, or located within other equipment.

22.2.4. All metering equipment shall be located in an area openly accessible to the City, and shall be banked in one (1) location.

22.2.5. For multi-family units, all meter sockets are to be labeled with the unit number served with one inch (1") permanent outdoor-rated labeling. No marker labeling will be accepted.

22.2.6. The Customer shall be solely responsible at all times to maintain a suitable approach to the meter location, with no obstructions within four feet (4') of the front and two feet (2') of the sides of the meter.

22.2.7. The Customer shall install concrete-filled, eight inch (8") steel protection posts (bollards) to protect the metering installation where meters are located outdoors in paved areas or when the City determines that said meters may be susceptible to damage and/or obstruction outside of paved areas.

### 22.3. Grounding

22.3.1. The requirements of the latest adopted edition of the NEC shall determine all practices with respect to the grounding of electric meters.

22.3.2. The Customer's service entrance installation shall have an identified full-sized grounded conductor in accordance with the NEC.

## 22.4. Meter and Equipment Seals

22.4.1. The City shall seal all meters and points of access to unmetered wiring on the Customer's premises.

22.4.2. The Customer shall call the City if it becomes necessary to gain access to any sealed equipment.

22.4.3. No person shall break any seal, close any bypass switch, connect, disconnect, or tamper with any of the City's metering equipment other than authorized City personnel.

22.4.4. Any person(s) determined to have violated this rule shall be prosecuted to the full extent of the law, and shall also be liable for the cost of all energy supplied which has not been billed due to unauthorized use, alteration, or tampering with metering equipment. The person(s) will also be charged for all of the City employee labor hours required for the investigation and resolution to the said violation.

22.4.5. The Customer shall be liable for the costs of any such unauthorized use of energy.

## 22.5. Meter Installations

### 22.5.1. General

22.5.1.1. Single-phase electric meters up to 240 volts, 200 amperes (up to 400 amperes residential) shall be installed with trough-type meter sockets.

22.5.1.2. All devices designed to interrupt service or protect against tampering or vandalism shall be installed on the load side of the electric meters. See Section 11.6.1.

22.5.1.3. Where electric meter damage, vandalism, or tampering occurs or is anticipated, outdoor electric meters shall be protected by a suitable cover with hasp and staple for the installation of a City padlock. The City will determine if such a situation exists, and the Customer is responsible for the installation of such equipment.

22.5.1.4. Where the City determines that a protective box is required to protect against possible vandalism or meter tampering, such a protective box shall be installed and maintained by the Customer and the padlock shall be provided by the City.

## 22.5.2. Meter Sockets

22.5.2.1. It is the sole responsibility of the Customer to maintain the meter socket and meter trough assembly in such a way as to sustain a safe environment as per the NEC guidelines and City standards. In the event that the City determines that immediate maintenance is warranted, the Customer will be contacted by the City and must, through their electrician, perform any necessary corrective action within sixty (60) days of notice.

22.5.2.2. The City does not endorse or denounce specific manufacturers of meter socket and meter trough assemblies. However, the City reserves the right to preapprove specific equipment for applications that it feels occur in large non-unique quantities and also reserves the right to approve or decline requests for the same from equipment manufacturers.

## 22.5.3. Manual Bypass Meter Sockets

22.5.3.1. The Customer shall install, at its sole cost, a City-approved manual bypass meter socket with the ability to break load at full rating for each of the following installations:

22.5.3.1.1. All commercial installations (lever bypass); and

22.5.3.1.2. All residential installations rated 200 amperes and above (lever bypass); and

22.5.3.1.3. All multi-unit residential installations (horn bypass).

22.5.3.2. Protective load disconnect (breakers), which are embedded in certain meter sockets, may also be used. See the appropriate City standards for more information.

## 22.5.4. Cover Plates

22.5.4.1. After meter sockets are installed, the interior of the socket must be protected if exposed to the weather or if the terminals are energized.

22.5.4.1.1. The contractor shall supply and install suitable temporary covers, approved by the City, before the socket is energized.

22.5.4.1.2. The City will furnish and install covers for unused meter loops at the time meters are installed at banked (grouped) locations.

## 22.5.5. Multiple Meter Installations

22.5.5.1. The City shall review and approve any multiple meter service before the owner or developer orders or installs any equipment.

22.5.5.2. Multiple meter bank assemblies shall be designed so that the center of the top meter is no more than seventy-two inches (72") above the floor, or the ground and the center of the bottom meter(s) is not less than thirty inches (30") above final grade. Variations must have written authorization from the City.

## 22.6. Instrument Transformer Meter Installations

22.6.1. The installation of all transformer-rated meters over 200 amperes and/or greater than 480 volts, shall include facilities for mounting current transformers and potential transformers, as required.

22.6.1.1. The installation of all transformer-rated meters over 480 volts shall include facilities for mounting potential transformers.

22.6.1.2. The installation of all commercial transformer-rated meters over 200 amperes and residential transformer-rated meters over 320 amperes shall include facilities for mounting current transformers.

22.6.2. The City shall furnish, own, and maintain all instrument transformers required to provide electric service.

22.6.2.1. The Customer shall provide and install a one inch (1") continuous rigid conduit from each meter socket to its respective instrument transformer cabinet.

22.6.2.2. This continuous rigid conduit shall be installed in addition to the meter socket, instrument cabinet, test switches, and all other equipment required for the installation of the transformer-rated meter, except the instrument transformers and metering conductors, which shall be supplied and installed by the City.

22.6.2.3. The one inch (1") continuous rigid conduit shall be wired by the City.

22.6.2.4. Such meter sockets will be located on an outside building wall, and in such a position that there will be no obstructions to meter reading, testing, or other maintenance.

22.6.3. The City shall review and approve details of the Customer's service entrance and equipment for installations requiring instrument transformers before the Customer orders or installs any such equipment.

22.6.4. See the appropriate City standard(s) with regards to detailed information on the installation of this equipment.

## SECTION 23. ELECTRIC MOTOR INSTALLATIONS

- 23.1. The Customer shall provide and install any required equipment to protect a motor installation from high-voltage, low-voltage, "single" phasing, or reverse phasing conditions.

## SECTION 24. PLANS AND DRAWINGS

### 24.1. Submission of Plans

- 24.1.1. The City does not design, plan, install or maintain the Customer's wiring or electric equipment.
- 24.1.2. Customers shall contact the City to obtain information relative to new electric service connections or changes in existing service. In order to obtain service at the time desired, an application shall be submitted well in advance and the Customer should keep the City informed as to the progress of the relative work and when service is anticipated.
- 24.1.3. Prospective Customers desiring the installation of new electric service or changes in service shall furnish a building plan, a one-line electric diagram and a completed "Application for Service" form before service will be considered. The City will not design, plan, install or maintain any wiring or electrical equipment that is the property of the Customer. The City reserves the right to determine availability of voltage, phase of service, route of service, metering procedures and maximum fault current in any given area.
- 24.1.4. Where three-phase service is required, it shall be the Customer's responsibility to balance distribution of the load between the three phases of service as evenly as possible to preclude an over-current condition on City equipment. Loss of City equipment due to an imbalance may result in Customer being billed for replacement costs for such equipment.
- 24.1.5. The Customer is responsible for notifying the City of proposed all-electric services during the plan submission stages of development or service upgrade.
- 24.1.6. The Customer shall provide to City complete and accurate drawings and layouts for subdivisions, planned unit developments, and any other projects requiring the installation or replacement of City electrical facilities. These plans and drawings are part of the required submittal to obtain City building permits, and are required to be delivered in duplicate to the City for formal review and comment.
- 24.1.7. The Customer shall provide the City with complete architectural drawings for any commercial project for which the City is reviewing a Building Permit Application. Such drawings shall include:

- 24.1.7.1. The requested service voltage; and
- 24.1.7.2. The building connected load (in kW) broken down by load type; and
- 24.1.7.3. The electrical switchgear and metering lineup; and
- 24.1.7.4. The one-line diagram, depicting the service to the electric panels; and
- 24.1.7.5. The specifications for the HVAC equipment, etc.; and
- 24.1.7.6. The proposed location for City pad-mounted transformer on the Customer's property (if applicable).
- 24.1.7.7. At the request of the Customer, the City will perform a preliminary review of electrical facilities for commercial installations.

## SECTION 25. POWER FACTOR/POWER QUALITY

- 25.1. The City electrical service standards for supplying its Customers require the Customer to maintain a power factor of ninety-five percent (95%) or greater.
- 25.2. Any Customer having power factor characteristics not meeting Section 25.1 may be required to install, furnish, and maintain the appropriate corrective equipment which will result in an overall power factor within the City's standard range as measured at the meter.
- 25.3. Any Customer introducing disturbances related to the quality of power (i.e., harmonics or adverse spikes/dips), which affect the utility's equipment and/or the utility's quality of power to other Customers shall be required to install, furnish, and maintain the appropriate corrective equipment.
- 25.4. In the event that the City determines the Customer is required to install, furnish, and maintain the appropriate corrective equipment by not meeting the requirements of Section 25.1 or Section 25.3, the Customer shall, at Customer's sole expense, install, furnish and maintain the appropriate corrective equipment within 90 days of notification.
- 25.5. Should the necessary repairs not be completed within the specified amount of time, they shall install facilities adequate for the Customer to meet the requirements of Section 25.1 and/or Section 25.3, the Customer shall reimburse the City for all costs associated with installing, furnishing and maintaining the appropriate corrective equipment.
- 25.6. Variations must have written authorization from the City.

## SECTION 26. PROTECTION OF CUSTOMER-OWNED EQUIPMENT

- 26.1. The City shall not guarantee the supply of electric service against any irregularities or interruptions in service, and the City hereby disclaims any liability for any damages or lost business incurred by any such irregularity or interruption.
- 26.2. The Customer may install circuit protection and power quality improvement devices (i.e., line conditioners and uninterruptable power supplies) on the load side of the meter to protect against possible equipment damage at the Customer's sole cost, expense, and liability for the purchase, installation, use, or misuse of any such devices.

## SECTION 27. RATES

- 27.1. Electrical rates have been established for various Customer classes.
- 27.2. A full description of each of the electrical service rates is included in Section 11-1-1 of the City Municipal Code, as amended from time to time.

## SECTION 28. RESIDENTIAL SERVICE

- 28.1. Defined
  - 28.1.1. For the purpose of installing and maintaining electrical utility facilities, residential services shall be defined to include those facilities which provide a connection from the City's utility power supply to any single-family detached dwelling units, duplex units, and single-family attached dwelling units which are situated on subdivided lots, the side lot lines of which terminate at the public right-of-way.
  - 28.1.2. Other multiple occupancy buildings shall be defined as commercial services for the sole purpose of the Customer installing and maintaining the service conductors.
- 28.2. Standard Service Size
  - 28.2.1. The City shall provide only one electric service connection to each residential dwelling unit.
  - 28.2.2. The City will provide each residential dwelling unit with electric service rated at 120/240 volts and single phase in accordance with all service rules and standards for new construction. Installations with greater than 200 amperes are also allowed, but additional requirements will have to be met.
  - 28.2.3. The Customer is responsible for all costs incurred if their non-standard (greater than 200 amperes) service requires that the infrastructure serving the surrounding facilities be upgraded in order to meet their proposed upgrade.

### 28.3. Overhead Electrical Service

28.3.1. Overhead service shall be available only in those existing areas of the City where electrical utilities are currently located on utility poles.

28.3.2. The Customer shall provide, install, maintain, and replace as necessary, the riser conduit, weatherhead, meter socket and all other materials and installations required for a complete installation of an overhead residential service.

28.3.2.1. Riser conductor tails shall extend a minimum of three feet (3') out of the weatherhead.

28.3.3. The electric meter shall be located at the side of the structure on the outermost wall closest to the side lot line, which is nearest to the point of connection with the City's system. Variations must have written authorization from the City.

28.3.4. The Customer shall provide a straight, clear, unobstructed path for installation of the electric service from the point of service connection to the meter location.

28.3.6. The meter shall be placed so that there will be no obstruction to, and complete open access for meter reading, meter testing, meter wireless communications, or other maintenance. See Section 22.2.

### 28.4. Underground Electrical Service

28.4.1. In a service area where electrical facilities are padmounted, any new electrical service connections shall be installed underground in accordance with these Electric System Service Rules.

28.4.2. The Customer may request underground installation in a service area which is predominantly served by overhead electrical service.

- The Customer shall reimburse the City for any costs incurred in providing such a request for underground service.

28.4.3. The Customer shall provide, install, maintain, and replace as necessary, a complete trough metering installation, approved by the City.

28.4.4. The electric meter shall be located to maintain complete open access at all times for meter reading, meter testing, or other maintenance. See Section 22.2.

28.4.5. The electric meter trough shall be located at the side of the structure on the outermost wall closest to the side lot line, which is nearest to the point of connection with the City's system

28.4.5.1. The Customer shall provide a clear, unobstructed path from the point of service connection to the meter location for the installation of the electric service.

28.4.6. All lots and easements shall be brought to within four inches (4") of final grade prior to the installation of underground electric services.

28.4.7. All other underground utilities located beneath the City's electric facilities shall be installed prior to the installation of the underground service.

#### 28.5. Alterations or Additions to Existing Dwelling Units

28.5.1. Where the City determines it is necessary to relocate an existing electric meter due to meter failure, remodeling, alteration, or addition to an existing dwelling unit, the new meter shall be located in conformity to these Electric System Service Rules. At the Customer's expense.

### SECTION 29. SPECIAL EQUIPMENT

29.1. Where the Customer's electrical load includes equipment or devices which create a high demand on the operation of the City's facilities for a relatively short period of time, the City may determine that the installation of special equipment may be required to provide satisfactory service.

### SECTION 30. STREET LIGHTING

30.1. The City designs, maintains, and upgrades the street lighting systems on all City streets.

### SECTION 31. TEMPORARY SERVICE

31.1. The City will provide temporary service to any Customer where such service may be provided from the City's existing lines or facilities.

31.1.1. Where a Customer applies for routine temporary service, the Customer shall supply and maintain suitable equipment for a service entrance and all required service conductors sized in accordance with all applicable codes and these Electric System Service Rules.

31.2. The Customer shall pay the monthly charges for energy used at the applicable service rate.

31.3. At the sole discretion of the City, temporary service required for conditions other than those specified in Section 31.1 above may be provided. The Customer shall reimburse the City for all costs associated with installing and removing such "non-

routine” facilities. Such instances include temporary service for emergency purposes when the Customer is responsible for the repair to the meter socket.

31.4. Temporary service is intended for limited use only and should not exceed a period of One (1) year, unless otherwise agreed upon.

31.5. Permanent service entrance equipment shall be installed as soon as practicable.

## SECTION 32. TREE TRIMMING

32.1. The City reserves the right to trim or remove any tree which creates a line-clearance hazard as defined by the NESC, or if it is deemed to in any way provide an unsafe working condition for the City or any other utility, or if it is deemed to in any way provide a potential safety hazard to the general public.

32.2. Properly authorized agents of the City shall, at all reasonable hours have, free access to Customer’s property for the purpose of trimming or removing trees.

32.3. The Customer shall permit the City to trim or remove any trees on the Customer’s property that may interfere with the safe operation of the City’s facilities. Routine trimming is vital to maintaining reliable service and is performed at no cost to the Customer. To avoid future problems and inconvenience, it is strongly recommended that Customers avoid planting tall-growing trees under or near overhead power lines.

32.3.1. Trimming and tree removal related to maintaining safe clearance for customer service drops to a Customer’s facilities, are the responsibility of the customer/property owner.

32.3.2. Damage to a service drop or the utility facilities due to customer/property owner neglect of trimming for service drop clearances may result in service or cost for repair.



