

## CHAPTER 111

### ELECTRIC UTILITY

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**111.01 PURPOSE.** The purpose of this chapter is to provide for the operation of the municipally owned electric system.

**111.02 POLICY DIRECTION.** The Mayor and Council shall establish appropriate rules and regulations governing the operation and maintenance of the electric system.

**111.03 SUPERINTENDENT.** The Electric Superintendent is responsible for execution of policies governing the system as established by the Council.

**111.04 SERVICE RULES AND REGULATIONS.** The rules and regulations for electric service are contained in the *City of Bloomfield Electric Tariff*, on file with the Utilities Division of the Iowa Department of Commerce. Also, an official copy of the rules and regulations as adopted is now on file in the office of the Clerk. The rules and regulations contained therein shall apply to all users of the municipal electric system.

**111.05 RATES.** The rates for electric service are as follows:

1. Residential Within City Limits
  - A. Facility Charge \$20.00 per month
  - B. Usage Charge \$0.1350 per kWh
2. Residential Outside City Limits
  - A. Facility Charge \$25.00 per month
  - B. Usage Charge \$0.1550 per kWh
3. Commercial
  - A. Facility Charge \$35.00 per month
  - B. Usage Charge \$0.1250 per kWh
4. Industrial
  - A. Facility Charge \$50.00 per month
  - B. Usage Charge \$0.075 per kWh

- C. Demand Charge \$12.00 per kW Demand
- 5. Security Lights:
  - A. Monthly charge for non-metered lights \$8.00
  - B. Installation of new services \$50.00
  - C. Installation of new services  
requiring a pole \$220.00 + \$50.00

6. These rates are based upon a purchased Energy Cost Index of 7.19¢ per kWh and may be increased or decreased periodically by an Energy Cost Adjustment equal to the amount by which the average cost of electric energy purchased by the Electric Utility in the period since the last preceding adjustment is greater or less than the current purchased Energy Cost Index.

7. The cost of operation and maintenance of the Electric Utility that is imbedded in these rates at a cost of 2.15¢ per kWh may be increased on February 1<sup>st</sup> of each year in direct proportion to a positive change in the Consumer Price Index for All Urban Consumers (CPI-U) for the Kansas City, MO-KS areas for the electricity subcategory of the Housing Expenditure Category, (index base period 1982-84 = 100) from January 1 to December 31 of the preceding year as published by United States Bureau of Labor Statistics.

8. Service shall not be commenced or continued for a new customer or customers without written application on a form to be provided by the utility signed by every person aged 18 years or older living at the place who is not a “dependent” of one of the others as defined by State and federal income tax provisions. In the case of a husband and wife, both shall sign the written application.

9. The application form shall include the certification under penalty of perjury by all persons signing the application that no one who is not a dependent of one of the others as defined above shall reside at the place other than the persons signing the application.

10. The application form shall state that all persons signing the service contract agree to be “jointly and severally liable for payment for all services rendered at the place” (the phrase “jointly and severally liable” is a legal term of art that makes each signatory responsible for the entire debt, not just what they may deem to be their “share” of the debt).

*(Section 111.05 – Ord. 729 – Jul. 23 Supp.)*

**111.06 BILLING FOR ELECTRIC SERVICE.**

1. Bills Payable. Bills for combined service accounts shall be due and payable at the office of the Clerk by the tenth (10<sup>th</sup>) day of each month.
2. Late Payment Penalty. Bills not paid when due shall be considered delinquent. A late payment penalty of 1½ percent per month of the amount due shall be added to each delinquent bill.

*(Ch. 111 - Ord. 631 – Dec. 07 Supp.)*

**111.06A SETOFF.** Electric utility service charges remaining unpaid and delinquent shall also be sent to the Iowa Department of Revenue for setoff pursuant to procedures adopted by the department.

Disconnection for nonpayment may occur only after the City has sent written notice of disconnection by regular mail postmarked at least 12 days before service is to be shut off. This notice must include the reason for disconnection. If disconnection is scheduled between November 1 and April 1 and it has not been possible to contact the obligor by telephone or in person, a notice shall be placed on the door of the property at least one day before service is disconnected.

The obligor may request a hearing by submitting a request in writing to the City Clerk by noon on the day preceding the scheduled shutoff date. The hearing board shall be the Director of Public Works, one Council member and the Mayor or his/her designee. The hearing shall be held within two business days of the request for hearing. The hearing may be held in person, by telephone or by video conference. The decision of the hearing board is final.

*(Section 111.06A – Ord. 731 – Feb. 24 Supp.)*

**111.07 INTERCONNECTION STANDARDS.**

1.Purpose. The purpose of this document is to establish standards for the Utility to interconnect and operate in parallel with customer-owned renewable electric generators.

2.Definitions.

A.Applicable Laws and Regulations. All duly promulgated applicable federal, State and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

B.Avoided Costs. The incremental costs to the Utility of electric energy or capacity or both which, but for the purchase from the

Customer's Generating Facility, the Utility would generate itself or purchase from another source.

C.Customer. Any entity interconnected to the Utility's distribution system for the purpose of receiving retail electric power service from the Utility's distribution system.

D.Customer Generator. The owner or operator of a Generating Facility which:

- (1) Is powered by a renewable energy resource;
- (2) Is located on a premises owned, operated, leased or otherwise controlled by the Customer Generator;
- (3) Is interconnected and operates in parallel phase and synchronization with an affected utility and is in compliance with the standards established by the affected utility;
- (4) Is intended primarily to offset part or all of the Customer Generator's own electrical energy requirements;
- (5) Contains a mechanism, approved by the utility, that automatically disables the unit and interrupts the flow of electricity back onto the supplier's electricity lines in the event that service to the Customer Generator is interrupted.

E.Distribution System. The Utility's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances.

F.Force Majeure. A Force majeure event shall mean "any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control." A Force Majeure event does not include an act of negligence or intentional wrongdoing.

G.Generating Facility. For purposes of this Standard, the Customer's device for the conversion of wind or solar energy to electricity, as identified in the Interconnection Application.

H.Good Utility Practice. Any of the practices, methods and acts engaged in or approved by a significant portion of the electric

industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

I. Governmental Authority. Any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Customer or any Affiliate thereof.

J. Interconnection Application. The Customer's request to interconnect a new Generating Facility, or to increase the capacity of, or make a material modification to the operating characteristics of, an existing Generating Facility that is interconnected with the Utility's electrical system.

K. Interconnection Standard. Any reference to Interconnection Standard shall mean all the provisions, forms and related documents described in the collective parts of this document, the Interconnection Standards for Parallel Installation and Operation of Customer-Owned Renewable Electric Generating Facilities, as of the date adopted and printed on the cover page.

L. Qualifying Facility. A cogeneration facility or a small power production facility that is a qualifying facility under 18 CFR Part 292, Subpart B, used by an interconnection customer to generate electricity that operates in parallel with the electric distribution system or local electric power system. Qualifying Facilities that are not Generating Facilities under subparagraphs "G" above may qualify for interconnection with the Utility under provisions of the Public Utilities Regulatory Policies Act (PURPA), but the terms and conditions of interconnection shall be determined on a case-by-case basis.

M. Reasonable Efforts. With respect to an action required to be attempted or taken by a Party under the Interconnection

Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

N.System Average Energy Cost. The current average cost of fuel and purchased energy for the billing period as determined by the Utility.

O.System Upgrades. The additions, modifications, and upgrades to the Utility's Distribution System at or beyond the point of interconnection to facilitate interconnection of the Generating Facility and render the transmission service necessary to effect the Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

### 3.Eligibility.

A.Interconnection to the electric system shall be granted only to new or existing customers, in good standing, under the Utility's electric service schedules. The Interconnection Agreement shall be between the Customer and the Utility and will not include third parties.

B.The Interconnection Standards apply to a customer-owned Generating Facility with a rated output of 100 kilowatts (kW) DC or fewer. Proposals to interconnect a customer-owned generator with output rated at more than 100 kW DC or Qualifying Facility not covered by this standard will be subject to a review process that may take into account the impact of the interconnection on reliability, rates, power supply agreements, and local and regional system planning.

C.The Net Metering Program is voluntary and is available on a first come, first served basis until the nameplate capacity (kilowatts or kW) of all participating generators is equal to the maximum program limit. That limit is 750 kW DC.

4.Request. The Customer shall make a request by completing the attached document entitled "Application for Interconnection." The Utility may require additional details or clarifications as needed to properly evaluate the application.

5.System Effects. The Utility will analyze the overall impact of the proposed generating facility on the transmission and distribution system. Such analyses will be based on Good Utility Practice to determine thermal effects, voltage ranges, power quality, system stability, etc.

6.System Upgrades. As a result of the above analysis, the Utility will provide the Customer with a cost estimate and projected timeframe for any system upgrades that may be necessary to accommodate the generating facility.

7.Agreement. Once the Customer and the Utility have identified and mutually agreed on the scope of the overall project including the generating facility, system upgrades and estimated costs, the Customer and the Utility shall execute the attached document entitled “Interconnection Agreement.”

8.Codes and Permits.

A.The Customer shall be responsible for procuring all building, operating and environmental permits that are required by any Governmental Authority having jurisdiction for the type of generating facility and for the necessary ancillary structures to be installed.

B.The equipment shall meet the standards listed in the attached document entitled “National Certification Codes and Standards”.

C. The construction and facilities shall meet all applicable building and electrical codes.

9.Certificate of Completion. Upon completion of the generating facility and prior to normal operation, the Customer shall provide a signed copy of the attached document entitled “Certificate of Completion”.

10.Normal Operation: The Customer may begin normal operation of the generating facility upon completion of all documentation and receipt of written approval from the Utility.

11.Technical Requirements.

A.Character of Service. The electrical service shall be 60 cycle per second alternating current (AC) at supply voltages and number of phases that apply under the Utility’s rate schedules.

B.Code Requirements. The Generating Facility shall meet all requirements established by the National Electrical Code (NEC), National Electrical Safety Code (NESC), Institute of Electrical and Electronics Engineers (IEEE), Underwriters Laboratories (UL), and Occupational Safety and Health Administration. Specific codes are listed in Section 7 of this Part 2, below as “National Certification Codes and Standards”. In addition, Manufacturer’s Ownership, Operating and Maintenance Manuals shall be reviewed and accepted by both parties prior to beginning operation.

C. Generating Facility Control and Operation. The control system of the Generating Facility shall comply with the IEEE specifications and standards for parallel operation with the Utility and in particular as follows:

- (1) Power output control system shall automatically disconnect from Utility source upon loss of Utility voltage and not reconnect until Utility voltage has been restored by the Utility.
- (2) Power output control system shall automatically disconnect from Utility source if Utility voltage fluctuates beyond plus or minus 10% (ten percent).
- (3) Power output control system shall automatically disconnect from Utility if frequency fluctuates plus or minus 2 cycles (Hertz).
- (4) Inverter output distortion shall meet IEEE requirements.
- (5) The Generating Facility shall meet the applicable IEEE standards concerning impacts to the Distribution System with regard to harmonic distortion, voltage flicker, power factor, direct current injection and electromagnetic interference.

D. Fault Current Contribution. The Generating Facility shall be equipped with protective equipment designed to automatically disconnect during fault current conditions and remain disconnected until the voltage and frequency have stabilized.

E. Reclosing Coordination. The Generating Facility shall be coordinated with the Distribution System reclosing devices by disconnecting from the system during the initial de-energized operation and shall remain disconnected until the voltage and frequency have stabilized.



F. Disconnect Device. A safety disconnect switch shall be installed that is visible to and readily accessible by Utility personnel. The switch shall be capable of being locked in the open position and shall prevent the generator from supplying power to the distribution system.

G. Standards for Interconnection, Safety, and Operating Reliability. The interconnection of a Customer-Owned Generating Facility and associated interconnection equipment to the Utility's Distribution Facilities shall meet the applicable provisions of the following publications:

- (1) ANSI/IEEE1547-2003 Standard for Interconnecting Distributed Resources with Electric Power Systems (including use of IEEE 1547.1 testing protocols to establish conformity). The following standards shall be used as guidance in applying IEEE 1547:
  - a. IEEE Std 519-1992, IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems
  - b. IEC/TR3 61000-3-7 Assessment of emission limits for fluctuating loads in MV and HV power systems
- (2) Iowa Electric Safety Code, as defined in 199 IAC Chapter 25
- (3) ANSI/NFPA 70 (2008), National Electrical Code
- (4) OSHA (29 CFR § 1910.269)  
*(Ord. 683 – Oct. 16 Supp.)*

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