A RESOLUTION ADOPTING THE DISTRIBUTED GENERATION "BEHIND THE METER" POLICY FOR THE MANGUM UTILITY AUTHORITY AND THE CITY OF MANGUM

WHEREAS, the Mangum Utility Authority ("Authority") which operates the Municipal Electric system of Mangum, OK has recognized the need to be prepared for requests by customers for Distributed Generation that customers may want to place on their homes or business; and WHEREAS, the Authority desires to provide safety to those who maintain the distribution system and safety to the public; and

WHEREAS, the Trustees of the Authority want to ensure that costs are not transferred from one class of customer to another class of customer and that the city have adequate guidelines in place to address the installation of Distributed Generation, requirements for obtaining proper permits for such installation and identifying costs associated for proper review of installations, metering, and charges for such; and

WHEREAS, the Trustees of the Authority believe it in the best interest of the citizen owners of the municipal to adopt a Distributed Generation Program containing provisions to meet all of the stated goals.

NOW THEREFORE BE IT RESOLVED by the Board of Trustees of the Authority that the Distribution Generation "Behind the Meter" Policy attached hereto as Exhibit "A" is hereby approved.

BE IT FURTHER RESOLVED that the officers and employees of the City of Mangum are hereby authorized and directed to take what actions as may be reasonably necessary to implement the program.

MANGUM UTILITY AUTHORITY

Ву		
Chairman		
ATTEST:		
Ву		
By Secretary		
(SEAL)		

Exhibit "A"



Behind the Meter Policy for Distributed Generation January 2021

A. General

This Behind the Meter Policy for customer-owned, grid-connected electric generating systems sets forth the requirements and conditions for interconnected non-utility owned electric generation where such generation may be connected for parallel operation with the electrical system of the City of Mangum and the Mangum Utility Authority ("City").

Generating systems will be permitted to interconnect to the City's electric distribution system at the service level voltage only after a determination by the City that such interconnection will not interfere with the operation of the distribution or transmission system and that such interconnection ensures the safety of City employees and customers.

The City will not guarantee to compensate, reimburse, refund, credit, or pay for any generation created by the Customer's generator and sent back into the distribution system of the City.

All agreements under the original connection agreement between the Customer and the City shall remain in effect including, but not limited to paying for electricity used and the penalties assessed for payment failure.

B. Interconnection Requirements

- 1. Customer has elected to operate, at its own expense, a customer-owned, grid-connected generation facility. Systems shall be limited in size to not more than 5 kilowatts aggregated at the service interconnection point. The generating system is intended to offset either all or part of the customer's electrical requirements.
- 2. Customer's generation shall supply alternating current power, 60 Hertz, at a voltage and phase of the City's established secondary or primary distribution system.
- 3. If the Customer's generation system full output capacity is larger than ten percent (10%) of the substation, feeder, or distribution line tap minimum load at the point of interconnection, additional studies and equipment may be required to provide proper line protection and voltage regulation. The Customer is responsible for the cost of any studies and/or upgrades required to allow safe interconnection of the Customer-owned generation.
- 4. Customer-owned generation which produces frequencies that result in interference or generates distorted wave forms into the 60 Hertz City electric system which adversely affects the operation of City's electric system shall be corrected at the expense of the Customer.
- 5. Any costs or expenses incurred by the City due to modifications made to the City's existing electrical system as a result of the interconnection of Customer's generating system shall be paid by the Customer.
- 6. Customer shall be the owner of the renewable attributes of the electricity that is generated, to include any and all credits, certificates, benefits, environmental attributes, emission reductions, offsets, and allowances, however entitled, attributable to the generation of electricity from the Customer-owned renewable generation and its displacement of conventional energy generation.
- 7. City may require Customer to interrupt or reduce deliveries when necessary in order to construct, install, maintain, repair, replace, remove, investigate, or inspect any of its equipment or part of its system.
- 8. Customer shall comply with all the latest applicable National Electric Code (NEC) requirements, NESC requirements, State of Oklahoma requirements, building codes, and shall obtain electrical permits for the equipment installation. Installation shall comply with local site permitting requirements.
- 9. The meter and transformer or transformer pole serving the Customer generator shall be labeled to indicate potential electric current back feed, and label shall be maintained by the Customer.

- 10. Customer shall provide space for metering equipment and meter base per City's requirements.
- 11. Customer's over-current device at the service panel shall be marked to indicate the type of back feed power source. Markings shall be maintained by the Customer.
- 12. Customer assumes full responsibility for all maintenance of generators, inverters, and associated equipment including protective equipment. Customer shall keep record of maintenance activities and provide such records to the City upon request.
- 13. Customer's generation control systems shall comply with NEC Articles 690 and 705 and applicable and current Institute of Electrical and Electronics Engineers (IEEE) standards including Standard 1547 "Interconnection Distributed Resources with Electric Power Systems" and any future updates or revisions for parallel operation with the City's electric system, in particular: a) Power output control system shall automatically disconnect from the City's source upon loss of voltage and not reconnect until City's voltage has been restored for at least five (5) minutes continuously, b) Power output control system shall automatically initiate a disconnect from the City's power source with six (6) cycles (0.1 second) if Customer's voltage falls below 50% of nominal on any phase, c) Power output control system shall automatically initiate a disconnect from the City's power source within two (2) seconds if Customer's voltage falls below 88% of nominal or rises above 120% of nominal on any phase.
- 14. Customer shall provide a written description of how the protection devices will achieve compliance with the requirements of this policy as part of the building permit application.
- 15. Customer shall furnish and install on Customer's side of meter a UL-approved safety disconnect switch, or transfer switch, which shall be capable of fully disconnecting the Customer's generating facility from the City's electric system. The disconnect switch shall be located adjacent to the City's meter and shall be of the visible break type in a metal enclosure which can be secured in the "Off" position with a padlock. The switch shall be accessible to City personnel at all times.
- 16. For systems larger than 7 kilowatts, Customer shall, at its own expense, maintain in force general liability insurance in the amount of \$1,000,000 without any exclusion for liabilities related to the interconnection.
- 17. For purposes of gathering research data, City may at its expense install and operate additional metering and data-gathering devices.

C. Specifications and System Diagram

- 1. Customer shall supply specifications for the proposed generation system as part of the building permit process.
- 2. Customer shall supply a system diagram for use of City in determining the safety and functionality of a grid-connected generator that will be kept in City files.
- 3. Customer shall supply a certificate or completion from a qualified professional engineer or electrician that the generation system meets all the requirements of this Policy.



Customer Acknowledgement Behind the Meter Policy for Distributed Generation

I hereby acknowledge that I have been provided the Behind the Meter Policy for Distributed Generation by the City of Mangum.

I further acknowledge that I have read and understand the contents of the Behind the Meter Policy for Distributed Generation, and will adhere to the policy during the construction, installation and operation of my generator.

Customer			
Date	 	 	