

ORDINANCE NO. 2014-03

AN ORDINANCE AMENDING ORDINANCE NO. 2009-25; AN ORDINANCE ESTABLISHING THE REQUIREMENTS FOR INTERCONNECTION AND PARALLEL OPERATION OF DISTRIBUTED GENERATION FACILITIES WITHIN THE CITY OF BOERNE ELECTRIC SYSTEM AND PROHIBITING INTERCONNECTION AND/OR PARALLEL OPERATION OF DISTRIBUTED GENERATION WITHOUT COMPLIANCE WITH THIS ORDINANCE AND ESTABLISHING PENALTIES FOR FAILURE TO COMPLY PROVIDING FOR A PENALTY OF NOT MORE THAN \$1,000 PER VIOLATION.

WHEREAS, The City of Boerne operates an electric distribution utility for the benefit of the citizens and customers of the utility; and

WHEREAS, The City of Boerne wishes to promote energy conservation, and the use of renewable sources of energy; and

WHEREAS, The Public Utility Regulatory Act, TEX. UTIL. CODE ANN. § 31.005 (Vernon 1998 & Supp. 2005) (PURA) authorizes and encourages electric utilities to establish customer option programs that encourage the reduction of air contaminant emissions including distributed energy generation technology; and

WHEREAS, The Public Utility Regulatory Act, TEX. UTIL. CODE ANN § 39.101(b)(3) (Vernon 1998 & Supp. 2005) (PURA) entitles all Texas electric customers to access to on-site distributed generation; and

WHEREAS, The Public Utility Regulatory Act, TEX. UTIL. CODE ANN § 39.916 (Vernon 1998 & Supp. 2005) (PURA) authorizes the interconnection and parallel operation of Distributed Renewable Generation with electric utilities, specifies requirements for same, and requires the Public Utility Commission of Texas to promulgate rules and regulations for same; and

WHEREAS, The Public Utility Commission of Texas has promulgated rules and regulations regarding the interconnection and parallel operation of Distributed Generation facilities with electric utilities as P.U.C. SUBST. R. 25.211, 25.212 and 25.217; and

WHEREAS, Unauthorized, inadequately protected, or substandard Distributed Generation equipment that is interconnected or operated in parallel to the electric distribution system can pose a safety hazard to Boerne Electric Department personnel and to other persons; and

WHEREAS, Unauthorized, inadequately protected, or substandard Distributed Generation equipment that is interconnected or operated in parallel with the electric distribution system can interfere with the quality and reliability of service to other customers; and

WHEREAS, The City Council, after careful consideration of the matter, hereby finds and declares that allowing the interconnection and parallel operation of Distributed

Generation facilities within the City of Boerne electric system under carefully controlled and managed conditions to provide for the safety and non-interference with the quality and reliability of service to other customers is in the best interests of the general welfare of the City and its residents; and

WHEREAS, The City Council, after careful consideration of the matter, hereby finds and declares that the requirements and conditions put forth herein for the interconnection and parallel operation of Distributed Generation facilities within the City of Boerne electric system are necessary to protect the health and safety of the City, its employees and residents, are necessary to protect the quality and reliability of the electric distribution system, are equitable, and do not impose an unfair burden on the owners and users of Distributed Generation facilities:

NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF BOERNE, TEXAS:

DISTRIBUTED GENERATION

Article I. GENERAL PROVISIONS

Section 1.01 Short Title

This Ordinance shall be known and cited as the Distributed Generation Ordinance.

Section 1.02 Intent

This Ordinance is intended to provide for the orderly, safe and effective interconnection and parallel operation of Distributed Generation facilities within the City of Boerne electric system by customers of the City of Boerne Electric Utility.

Section 1.03 Authority

The City is authorized to enact this Ordinance by the Public Utility Regulatory Act, TEX. UTIL. CODE ANN. § 31.005 (Vernon 1998 & Supp. 2005) (PURA) and successors, which authorizes and encourages electric utilities to establish customer-option programs that encourage the reduction of air contaminant emissions including distributed energy generation technology. Also, the Public Utility Regulatory Act, TEX. UTIL. CODE ANN § 39.101(b)(3) (Vernon 1998 & Supp. 2005) (PURA) entitles all Texas electric customers to access to on-site distributed generation. Finally, the Texas Public Utility Regulatory Act, TEX. UTIL. CODE ANN § 39.916 (Vernon 1998 & Supp. 2005) (PURA) and its successors authorizes electric utilities to establish requirements for and allow the interconnection and parallel operation of Distributed Renewable Generation, and requires the Public Utility Commission of Texas to promulgate rules and regulations for the implementation of interconnection and parallel operation of Distributed Renewable Generation.

Section 1.04 Definitions

As applied in this Ordinance, the following words and terms shall be used:

- (1) City Manager: the City Manager and/or his/her duly authorized representative.
- (2) Commission: the Public Utility Commission of Texas.
- (3) Customer: an entity interconnected to the Boerne electric system for the purpose of receiving or exporting electric power from or to the Boerne electric system.
- (4) Distributed Generation: An electrical generating facility located at a customer's point of delivery (point of common coupling) of ten megawatts (MW) or less and connected at a voltage less than 60 kilovolts (kV) which may be connected in parallel operation to the Boerne electric system.
- (5) Interconnection: The physical connection of distributed generation to the utility system in accordance with the requirements of this ordinance so that parallel operation can occur.
- (6) Networked secondary: two or more utility primary distribution feeder sources electrically tied together on the secondary (low voltage) side to form one power source for one or more customers. The service is designed to maintain service to the customers even after the loss of one of these primary distribution feeder sources.
- (7) Parallel operation: The operation of distributed generation by a customer while the customer is connected to the Boerne electric system.
- (8) Point of Interconnection (Point of Service, Point of Common Coupling): The point where the electrical conductors of the company utility system are connected to the customer's conductors and where any transfer of electric power between the customer and the utility system takes place, such as switchgear near the meter.
- (9) Pre-certified equipment: A specific generating and protective equipment system or systems that have been certified as meeting the applicable parts of this ordinance relating to safety and reliability by an entity approved by the Commission.
- (10) Stabilized: The Boerne electric system shall be considered stabilized when, following a disturbance, the system returns to the normal range of voltage and frequency for a duration of two minutes.

Section 1.05 Applicability

This Ordinance applies to all persons or entities that desire to interconnect or operate in parallel a distributed generation system within the City of Boerne electric system.

Section 1.06 Application and Agreement Required

- (1) Before a person or entity may interconnect or operate in parallel a distributed generation system within the City of Boerne electric system, that person or entity must apply with the City on the form provided by the City (an example is attached as Exhibit A) and execute an agreement with the City that establishes the terms

and conditions for the interconnection and parallel operation of the distributed generation system. The Agreement shall be in the general form of the Agreement in Exhibit B of this ordinance.

- (2) The City Council hereby delegates to the City Manager the authority to execute Agreements with Customers for the interconnection and parallel operation of distributed generation within the City of Boerne electric system in accordance with this ordinance, the Public Utility Commission of Texas rules and regulations, and in accordance with all state and federal laws applicable. The Agreement shall not vary substantially in form and intent from Exhibit B of this ordinance.
- (3) Substantial changes to the form and/or intent of the Agreement in Exhibit B must be approved by the City Council before the execution of the Agreement.
- (4) The interconnection shall not be energized prior to the execution of the Agreement as required herein.
- (5) The application, Exhibit A, may be modified from time to time by the City Manager as is required for smooth processing of applications.

Section 1.07 Utility Contact Person

- (1) Per the P.U.C. SUBST. R. 25.11(l), the City Manager shall designate the appropriate City staff member or members as contact person or persons for all matters related to distributed generation interconnection.
- (2) The City Manager shall identify to the Public Utility Commission of Texas the contact person or persons for all matters related to distributed generation interconnection.
- (3) The City Manager shall cause the City of Boerne internet web site to provide convenient access through the internet web site to the names, telephone numbers, mailing addresses and electronic mail addresses for the distributed generation contact person or persons.
- (4) The designated contact person or persons shall review applications for distributed generation with attached technical documentation and determine compliance with the City of Boerne technical requirements for interconnection and parallel operation of distributed generation.
- (5) When satisfied that a customer has complied with the application requirements and that the Customer's system complies with the technical requirements for interconnection and parallel operation of distributed generation, the contact person shall recommend to the City Manager that an Agreement be executed with the Customer for the interconnection and parallel operation of distributed generation. The City Manager shall review the application and technical information submitted, and if the City Manager finds that the Customer has complied with the application requirements and that the Customer's system complies with the technical requirements for interconnection and parallel operation of distributed generation, the City Manager shall execute an

Agreement with the Customer substantially in the form attached to this ordinance as Exhibit B.

Article II. Technical Requirements

Section 2.01 General Requirements

- (1) All interconnections shall comply with P.U.C. SUBST. R. 25.212 and successors. In addition, all interconnections shall comply with applicable state and federal laws and regulations.
- (2) All interconnections shall comply with local building and electric codes as adopted by the City of Boerne. Installation of all interconnections shall be inspected by the City of Boerne. Inspection and approval of the installation by the City of Boerne is a condition of interconnection and parallel operation of distributed generation.
- (3) Variations from the Technical Requirements herein must be reviewed and approved by the City Manager prior to implementation. Variations in the point of interconnection must be approved by the City Manager and included in the Agreement approved by the City Council.

Section 2.02 Manual Disconnect

The customer shall provide and install a manual load break switch that provides clear indication of the switch position at the Point of Interconnection to provide separation between the City of Boerne (COB) electrical system and the customer's electrical generation system. The location of the disconnect switch must be approved by the COB. The disconnect switch shall be easily visible, mounted separately from metering equipment, readily accessible to COB personnel at all times, and capable of being locked in the open position with a COB padlock. The City of Boerne reserves the right to open the disconnect switch isolating the customer's electrical generating system (which may or may not include the customer's load) from COB electrical system for the following reasons:

- (1) To facilitate maintenance or repair of the COB electrical system.
- (2) When emergency conditions exist on the COB electrical system.
- (3) When the customer's electrical generating system is determined to be operating in a hazardous or unsafe manner or unduly affecting the COB electrical system waveform.
- (4) When the customer's electrical generating system is determined to be adversely affecting other electric consumers on the COB electrical system.
- (5) Failure of the customer to comply with applicable codes, regulations and standards in effect at the time.
- (6) Failure of the customer to abide by any contractual arrangement or operating agreement with the City of Boerne.

Section 2.03 Power Quality

- (1) Voltage – The City of Boerne shall endeavor to maintain the distribution voltages on the electrical system but shall not be responsible for factors or circumstances beyond its control. The customer shall provide an automatic method of disconnecting generation equipment from the COB electrical system within 10 cycles should a voltage deviation greater than +5% or -10% from normal be sustained for more than 30 seconds (1800 cycles) or a voltage deviation greater than +10% or -30% from normal be sustained for more than 10 cycles. If high or low voltage complaints or flicker complaints result from the operation of the customer's electrical generation, the customer's generating system shall be disconnected until the problem is resolved.
- (2) Frequency – The City of Boerne shall endeavor to maintain a 60-hertz nominal frequency on the electrical system. The customer shall provide an automatic method of disconnecting generation equipment from the COB electrical system within 15 cycles should a deviation in frequency of +0.5Hz or -0.7Hz from normal occur.
- (3) Harmonics – In accordance with IEEE 519, the total harmonic distortion (THD) of voltage shall not exceed 5% of a pure sine wave of 60-hertz frequency or 3% of the 60-hertz frequency for any individual harmonic when measured at the point of interconnection with the COB electrical system. Also, the total current distortion shall not exceed 5% of the fundamental frequency sine wave. If harmonics beyond the allowable range result from the operation of the customer's electrical generation, the customer's generating system shall be disconnected until the problem is resolved.
- (4) Flicker – The distributed generation facility shall not cause excessive voltage flicker on the COB electrical system. This flicker shall not exceed 3% voltage dip, in accordance with IEEE 519 (Section 10.5), as measured at the point of interconnection.
- (5) Power factor – The customer's electrical generation system shall be designed, operated and controlled at all times to provide reactive power requirements at the point of interconnection from 0.95 lagging to 0.95 leading power factor. Induction generators shall have static capacitors that provide at least 95% of the magnetizing current requirements of the induction generator field. The COB may, in the interest of safety, authorize the omission of capacitors. However, where capacitors are used for power factor correction, additional protective devices may be required to guard against self-excitation of the customer's generator field.

Section 2.04 Loss of Source

The customer shall provide approved protective equipment necessary to immediately, completely and automatically disconnect the customer's electrical generation equipment from the COB electrical system in the event of a fault on the customer's system, a fault on the COB system or loss of source on the COB system. Such protective equipment shall conform to the criteria specified in UL 1741 and IEEE 1547. The customer's generating system shall automatically disconnect from the grid within 10 cycles if the voltage on one or more phases falls and stays below 70% of

nominal voltage for at least 10 cycles. The automatic disconnecting device may be of the manual or automatic reclose type and shall not be capable of reclosing until after the COB service voltage and frequency are restored to within the normal operating range and the system is stabilized.

Section 2.05 Coordination and Synchronization

The customer shall be solely responsible for coordination and synchronization of the customer's electrical generating system with all aspects of the COB electrical system, and the customer assumes all responsibility for damage or loss that may occur from improper coordination and synchronization of its generating system with the COB electrical system.

Section 2.06 Metering

The actual metering equipment required, its voltage rating, number of phases and wires, size, current transformers, number of input and associated memory is dependent upon the type, size and location of the electric service provided. The Customer shall pay for the installation of the data recorder (meter) that is capable of measuring the "delivered kWh" (energy delivered by the City of Boerne); the "Received kWh" (energy delivered to the City of Boerne by the Customer) using a single meter or two-meter configuration. Additionally, for all Customers, the City of Boerne reserves the right to install, at its own expense, a meter to measure the output of the DG system.

Section 2.07 Interconnection Study

The City of Boerne will determine whether an interconnection study is necessary, based on relevant engineering factors including the output of the system, the location of the system and other City of Boerne distribution system factors. If the interconnection study is deemed necessary, the City of Boerne shall perform the study under reasonable terms and conditions agreed upon by both the Customer and City of Boerne and at the Customer's sole expense. No study fee will be charged if the proposed generation site is not on a networked secondary and if all of the following apply:

- (1) Proposed generation equipment is pre-certified.
 - (a) Generation equipment that are less than 20 kW AC shall be considered pre-certified if a UL 1741 listed inverter that also meets IEEE 1547 specifications is used as well as UL 1703 listed PV modules.
- (2) Proposed generation system does not expect to export more than 15% of total load on the feeder.
- (3) Proposed generation system does not contribute more than 25% of the maximum possible short circuit current of the feeder.

Section 2.08 Protection

The distributed generation facility must have interrupting devices capable of interrupting the maximum available fault current, an interconnection disconnect device, a generator disconnect device, an over-voltage trip, an under-voltage trip, an over/under

frequency trip and a manual or automatic synchronizing check (for facilities with stand-alone capability). Facilities rated over 10kW, three phase, must also have reverse power sensing and either a ground over-voltage or a ground over-current trip depending on the grounding system. Grounding shall be done in accordance with UL 1741, IEEE 1547 and NEC Article 250.

Section 2.09 Three-Phase generators

- (1) Synchronous machines:
 - (a) The distributed generation facility's circuit breakers shall be three-phase devices with electronic or electromechanical control.
 - (b) The Customer is solely responsible for proper synchronization of its generator with the COB system.
 - (c) The excitation system response ratio shall not be less than 0.5.
 - (d) The generator's excitation system shall conform to the field voltage versus time criteria specified in ANSI Standard C50.13-1989.
- (2) Induction machines: The induction machines used for generation may be brought up to synchronous speed if it can be demonstrated that the initial voltage drop at the point of interconnection is within the flicker limits specified in this document.
- (3) Inverters:
 - (a) Line-commutated inverters do not require synchronizing equipment.
 - (b) Self-commutated inverters require synchronizing equipment.

Section 2.10 Standards

The distributed generation equipment shall be designed, installed, operated and maintained in accordance with, but not limited to, ANSI standards, UL standards, IEEE standards, the National Electrical Code, ERCOT Operating Guides and any other applicable local, state or federal codes and statutes. In the case of a conflict between the requirements in this document and any of those standards or codes, this document shall prevail.

Article III. MISCELLANEOUS PROVISIONS

Section 3.01 Severability Clause

If any sentence, section, subsection, clause, phrase, part or provision of this Ordinance be declared by a court of competent jurisdiction to be invalid, the same shall not affect the validity of the Ordinance as a whole, or any part thereof, other than the part declared to be invalid.

Section 3.02 Liability

The provisions of this Ordinance shall be liberally construed to effectively carry out its purposes, which are hereby found and declared to be in the furtherance of the public health, safety, and welfare. Any member of the City Council, City official, or employee charged with enforcement of this Ordinance, acting for the City in the discharge of his or her duties, shall not thereby render himself or herself personally liable; and is hereby relieved from all personal liability for any damage that might accrue to persons or property as a result of any act required or permitted in the discharge of said duties.

Section 3.03 Penalty

Any person violating this Ordinance by interconnecting distributed generation to the Boerne electric system without a complete Application and executed Agreement shall, upon conviction, be guilty of a misdemeanor and shall be fined up to \$1,000.00 per violation, and each day that a violation continues or each occurrence shall be considered a separate offense and punished accordingly.

Section 3.04 Violation

Any violation of this Ordinance can be enjoined by a suit filed in the name of the City of Boerne in court of competent jurisdiction, and this remedy shall be in addition to any penalty provision in this Ordinance.

Section 3.05 Effective Date

This ordinance shall take effect immediately upon passage of the second reading.

PASSED and APPROVED on first reading this the 11th day of February, 2014.

PASSED, APPROVED and ADOPTED on second reading this the 25th day of February, 2014.

APPROVED:

s/s Michael D. Schultz
Mayor

ATTEST:

s/s Lori A. Carroll
City Secretary

APPROVED AS TO FORM:

s/s Kirsten B. Cohoon
City Attorney

EXHIBIT A

APPLICATION FOR INTERCONNECTION AND PARALLEL OPERATION OF
DISTRIBUTED GENERATION IN THE CITY OF BOERNE ELECTRIC SYSTEM

APPLICATION FOR INTERCONNECTION AND PARALLEL OPERATION OF
DISTRIBUTED GENERATION WITHIN THE CITY OF BOERNE ELECTRIC SYSTEM

The undersigned (the "Customer") hereby applies to the The City of Boerne (COB) for the interconnection and parallel operation of distributed generation on the electric service at the service address herein specified and agrees that such service shall be supplied and used in accordance with the terms and conditions of The City of Boerne Distributed Generation Ordinance. The following information shall be supplied by the Customer or Customer's designated representative. All applicable items must be accurately completed in order that the Customer's generating facilities may be effectively evaluated by COB for interconnection with the utility system.

Customer's Name: _____

Customer's Account No.: _____

Contact Person: _____

Telephone Number: _____

Service Point Address: _____

GENERATOR:

Number of Units: _____

Manufacturer: _____

Type (Synchronous, Induction, or Inverter): _____

Fuel Source (Solar, Natural Gas, Wind etc.): _____

Kilowatt Rating (95° F at location): _____

Kilovolt Ampere Rating (95° F at location): _____

Power Factor: _____ Voltage Rating: _____

Ampere Rating: _____ Number of Phases: _____

Frequency: _____

Do you plan to export power: Yes No

If Yes, maximum amount expected: _____ KW _____ KWH

Pre-certification Label or Type Number: _____

Expected Energizing and Startup Date: _____

Normal Operation of Interconnection: (examples: provider power to meet base load, demand management, standby, backup, other (please describe)):

Complete set of system engineering drawings and specifications:

- system one-line diagram
- system grounding schematic
- metering devices and equipment included as per COB specification
- meets or exceeds requirements of NEC, NESC, ANSI, other applicable codes, ordinances, rules, regulations

Complete set of manufacturer's Drawings and Specifications for major components of proposed system:

- certifying compliance with IEEE 519
- certifying compliance with IEEE 929
- certifying compliance with UL 1741 and IEEE 1547
- certifying compliance with PUCT Substantive Rule 25.212

Has the generator Manufacturer supplied its dynamic modeling values to the Host Utility? Yes No

(Note: Require a Yes for complete application. For pre-certified equipment answer is Yes)

Information Prepared and Submitted by:

Name: _____

Address: _____

Phone: _____

Signature: _____

Date: _____

Note:

Acceptance of this application is made contingent upon the customer executing an Agreement for Interconnection and Parallel Operation of Distributed Generation and providing certification of insurance.

Customer: _____

Signature: _____

Date: _____

Approved for Interconnection:

City of Boerne

By: _____

Title: _____

Date: _____

Return completed Application to:

City of Boerne Public Works
Public Works Director
402 E. Blanco Road
Boerne, Texas 78006-1677

EXHIBIT B

AGREEMENT FOR THE INTERCONNECTION AND PARALLEL OPERATION OF
DISTRIBUTED GENERATION IN THE BOERNE ELECTRIC SYSTEM

AGREEMENT FOR INTERCONNECTION AND PARALLEL OPERATION OF
DISTRIBUTED GENERATION

THIS AGREEMENT is entered into by and between the City of Boerne, Texas (COB) and _____
Customer (Customer). COB owns and operates a municipal electric utility engaged in the distribution of electricity serving the City of Boerne and portions of Kendall County, Texas; and Customer intends to construct, own, operate, maintain and connect to the COB electric distribution system, a Distributed Generation system less than 10MW in size (the DG System) at address _____; and The parties hereto wish to contract for the purchase and sale of the electrical output from the DG System, and the terms of its interconnection with the COB electric distribution system. THEREFORE, in consideration of the mutual covenants and agreements herein contained, the parties hereby contract and agree with each other as follows:

Article IV. This Agreement shall be effective as of the date of execution by the latter of the two parties (the Effective Date) and, subject to the other terms of this Agreement, shall continue in effect for a period of one year, and month to month thereafter.

Article V. The DG System will be installed at Customer's premises at the address specified above. The DG System shall not have a generation capacity greater than 10 MW. Customer shall install, operate and maintain the DG System in full and faithful compliance with all applicable federal, state and local laws, ordinances, rules and regulations, and generally accepted industry codes and standards, including, but not limited to the National Electrical Safety Code and the National Electrical Code. Customer shall promptly notify COB upon receipt of any citation or other official notice of alleged violation of laws, ordinances, rules and regulations concerning the DG System.

Article VI. Customer warrants and represents that:

Section 6.01 The information regarding the characteristics of the DG System are as specified in the Application for Interconnection and Parallel Operation of Distributed Generation with the COB Electric System filed by the Customer with COB;

Section 6.02 The DG System and associated other electrical components and devices meet National Electrical Code standards;

Section 6.03 All permits, inspections, approvals, and/or licenses necessary for the installation or operation of the DG System have been obtained; and

Section 6.04 The DG System has been successfully tested to UL 1741, IEEE 1547 or IEEE 929 standards, or has been satisfactorily tested by an independent laboratory with published results.

Customer shall provide manufacturer's data or other written proof acceptable to COB to verify the accuracy of the foregoing warranties and representations. If any of foregoing warranties and representations are inaccurate, the COB may, without waiver of or prejudice to any other remedy, immediately disconnect the DG system from the COB electric system and terminate this Agreement.

Article VII. COB will purchase from Customer, and Customer will sell exclusively to COB the electrical output made available to COB at the point of delivery from the DG system. Electrical output shall mean the total amount of electricity generated by the DG System less any losses in transforming or transmitting such electricity to COB. The point of delivery to COB for electric power generated by the DG System shall be at Point of Interconnection. During the term of this Agreement, Customer shall exclusively purchase from COB its requirements of electric energy above the amounts generated by the DG system.

Article VIII. As provided for in Exhibit C to this Ordinance, the City of Boerne shall pay Customer for the "kWh Received" (energy received by the City of Boerne Distribution System) at the "Avoided Cost of Generation Rate" (ACGR) The ACGR is determined by the average per kWh cost of generation for the preceding year for the electric energy purchased by the City of Boerne from its wholesale electric energy provider(s). The City of Boerne reserves the right to amend the ACGR at any time.

Article IX. Customer shall pay for the installation of the data recorder (meter) that is capable of measuring the "kWh Delivered" (energy delivered to the Customer) and the "kWh Received" (energy received by the City of Boerne Distribution System) in intervals established by the City of Boerne, using a single meter or two-meter configuration.

Article X. Customer shall be solely responsible for the design, installation, operation, maintenance, and repair of the DG System and Customer's interconnection facilities. The interconnection of the DG System to the COB electrical system shall comply with the Public Utility Commission of Texas Substantive Rules §25.212 relating to Technical Requirements for Interconnection and Parallel Operation of On-Site Distributed Generation, (16 Texas Administrative Code §25.212) or any successor rule addressing distributed generation. COB shall inspect the DG System and the interconnection equipment. All costs to interconnect with the COB electric system shall be the responsibility of Customer. COB shall not be required to take or pay for any energy generated by the DG System until the DG System successfully passes COB's Field Inspection and Customer shall have reimbursed COB for all its interconnection costs. Maintenance of the DG System shall be performed in accordance with the applicable manufacturer's recommended maintenance schedule.

Article XI. COB shall not be obligated to accept, and shall have the right to require Customer to temporarily curtail, interrupt, or reduce, deliveries of energy in order to construct, install, maintain, repair, replace, remove, investigate, inspect, or test any part of the interconnection facilities, equipment, or any part of the COB electric system. COB may disconnect, without notice, the DG System from the electric distribution system, if, in COB's opinion, a hazardous condition exists and such immediate action is necessary to protect persons, or COB's facilities or other customers' facilities from damage or interference caused by Customer's DG System or lack of properly operating protective devices.

Article XII. Customer hereby grants COB access on and across its property at any reasonable time to inspect the DG System and the interconnection equipment, to read or test meters and metering equipment, and to operate, maintain and repair COB's facilities. No inspection by COB of the DG System or the interconnection facilities shall impose on COB any liability or responsibility for the operation, safety or maintenance of the DG system or Customer's interconnection facilities.

Article XIII. Customer shall indemnify, defend and save harmless COB, its elected and non-elected officials, officers, agents and employees from and against any and all liabilities, losses, claims, damages, actions, suits or demands for damages (including costs and attorney's fees, both at trial and on appeal) arising out of, resulting from, or in any manner connected with the breach of any warranty or representation made by Customer in this Agreement, or in any manner connected with the design, construction, operation, maintenance or repair of any part of Customer's DG System or interconnection facilities, including, without limitation liabilities, losses, claims, damages, actions, suits or demands for damages for or on account of personal injury to, or death of, any person, or damage to, or destruction or loss of, property belonging to Customer, COB or any third person.

Article XIV. The Customer shall maintain liability insurance including contractual liability insurance covering the indemnity agreement set forth herein, with COB as a named insured, which insures COB against all claims for property damage and for personal injury or death arising out of, resulting from or in any manner connected with the installation, operation and maintenance of the Customer's DG System. The amount of such insurance coverage shall be at least \$500,000 per occurrence, \$1,000,000 general aggregate. Within 10 days of the date of this Agreement Customer shall furnish a certificate from Customer's insurance carrier showing that it has complied with the provisions of this section and providing that the insurance policy will not be changed or canceled during its term without written 30 day notice to COB. This insurance requirement will not apply to systems of 20 kW or less that are UL 1741 listed and meet the requirements of IEEE 1547 and are installed in accordance with the National Electric Code.

Article XV. Notices given under this Agreement are deemed to have been duly delivered if hand delivered or sent by United States certified mail, return receipt requested, postage prepaid, to:

If to Company:

The City of Boerne
402 E. Blanco Rd.
Boerne, Texas 78006-1677

If to Customer:

The above—listed names, titles, and addresses of either party may be changed by written notification to the other.

Article XVI. A material failure of either party to fully, faithfully and timely perform its obligations under this Agreement shall be a breach of this Agreement. In the event of a breach which is not cured within thirty (30) days after receipt of written notice to the party in default, the party not in default may terminate this Agreement. If Customer is in breach

of this Agreement, and such breach continues for thirty (30) days after written notice from COB, COB may disconnect the DG System or otherwise suspend taking energy from Customer. All rights granted under this section are in addition to all other rights or remedies available at law or under this Agreement or the applicable COB Utilities Rules and Regulations.

Article XVII. This Agreement shall inure to the benefit of and be binding upon the heirs, successors, or assigns of each of the parties hereto. Customer may not assign this Agreement without the prior written consent of COB. Any assignment without such consent shall be null and void.

Article XVIII. This Agreement constitutes the entire agreement and understanding between the parties hereto and can be amended only by agreement between the parties in writing. In the event any provision of this Agreement, or any part or portion thereof, shall be held to be invalid, void or otherwise unenforceable, the obligations of the parties shall be deemed to be reduced only as much as may be required to remove the impediment.

Article XIX. The failure of either party to insist in any one or more instances upon strict performance of any provisions of this Agreement, or to take advantage of any of its rights hereunder, shall not be construed as a waiver of any such provision or the relinquishment of any such right or any other right hereunder.

Article XX. This Agreement and all disputes arising hereunder shall be governed by the laws of the State of Texas. Venue for all such disputes shall be proper and lie exclusively in Kendall County, Texas.

IN WITNESS WHEREOF, the parties hereto have caused their names to appear below, signed by authorized representatives.

CITY OF BOERNE

CUSTOMER

By: _____

By: _____

Name: _____

Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

EXHIBIT C

CITY OF BOERNE

DISTRIBUTED GENERATION RIDER

APPLICABILITY

This Rider is available to any retail customer receiving electric service under a City of Boerne electric rate schedule who owns and operates an on-site generating system capable of producing ten megawatts (10 MW) or less, who interconnects with the City of Boerne's electric system. Customers requesting interconnection and parallel operation of Distributed Generation ("DG") shall complete the Application for Interconnection and Parallel Operation of Distributed Generation ("Application") with the City of Boerne. For purposes of this rate schedule, Distributed Generation refers to an electrical generating facility located at a Customer's point of delivery of ten megawatts (10 MW) or less and connected to the City of Boerne distribution system at a standard available voltage less than or equal to 60 kilovolts (kV) and 60 Hertz alternating current.

AGREEMENT

Upon determination by City of Boerne that the Customer's facility is consistent with the safe and reliable operation of the City of Boerne's distribution system, City of Boerne and Customer shall enter into an Agreement for Interconnection and Parallel Operation of Distributed Generation ("Interconnection Agreement"), which sets forth the contractual conditions under which City of Boerne and Customer agree that one or more facilities may be interconnected with City of Boerne's distribution system.

CONDITIONS OF SERVICE:

1. All charges, character of service, and terms and conditions of the City of Boerne Electric Rate Schedule under which the customer receives service apply except as expressly altered by this Rider.
2. The customer shall comply with the technical requirements in the City of Boerne's Ordinance N0._____, DG Technical Manual and procedures set forth in The Public Utility Commission of Texas Substantive Rule 25.212 for safe and effective connection and operation of Distributed Generation, which describes typical interconnection requirements. City of Boerne may require Customer to install and use more sophisticated protective devices and operating schemes when the DG facility is exporting power to City of Boerne's system or when otherwise required due to specific interconnection location and condition. The customer shall obtain approval from the City of Boerne before the customer energizes the customer's on-site generating system or interconnects it with the City of Boerne's electric system. The term of an agreement under this Rider is one year, and month to month thereafter.

3. The customer is responsible for the costs of interconnecting with the City of Boerne' electric system, including transformers, service lines, or other equipment determined necessary by the City for safe installation and operation of the customer's equipment with the City's system. The customer is responsible for any costs associated with required inspections and permits.
4. City of Boerne may perform interconnection studies, which shall include service study, coordination study, and utility system impact study, as needed and determined in the sole discretion of City of Boerne. In instances where such studies are deemed necessary, the scope of such studies shall be based on the characteristics of the particular distributed generation facility to be interconnected and the City of Boerne's distribution system at the specific proposed location. City of Boerne will charge Customer fees for Pre-Interconnection Studies that recover the costs of performing such studies. Any modifications or additions to City of Boerne's Electric System identified through the interconnection study as required for the safe and reliable interconnection of Customer's facility shall be solely at the Customer's expense. Customer shall not acquire any ownership in such modifications or additions to City of Boerne's Electric System.
5. All other terms and conditions will be negotiated between the City of Boerne and the customer in the Agreement for Interconnection and Parallel Operation of Distributed Generation.

METERING:

1. The actual metering equipment required, its voltage rating, number of phases and wires, size, current transformers, number of input and associated memory is dependent upon the type, size and location of the electric service provided. The Customer shall pay for the installation of the data recorder (meter) that is capable of measuring the "Delivered KWh" (energy delivered by the City of Boerne); the "Received KWh" (energy delivered to the City of Boerne by the Customer) using a single meter or two-meter configuration. Additionally, for all Customers, The City of Boerne reserves the right to install, at its own expense, a meter to measure the output of the DG system.

RATE:

1. In a billing month after a customer receives approval to interconnect the customer's on-site generating system from the City of Boerne, the City of Boerne will determine the "Delivered KWh" and the "Received KWh".
2. The "Delivered KWh" (energy) will be billed on the standard applicable rate schedule.
3. The "Received KWh" (energy) will be multiplied by the City of Boerne' Avoided Power Supply Cost to determine the amount the City shall credit the Customer.
4. The Avoided Power Supply Cost is based on the actual generation cost of power supply from the City's wholesale supplier(s). The City shall credit the Customer's account for this amount.
5. Any credit shall be applied to the utility charges due from the customer to the City of Boerne.