INTERCONNECTION AND PARALLEL OPERATION AGREEMENT OF DISTRIBUTED GENERATION EQUIPMENT/FACILITIES OF 10 kW or LESS

THIS AGREEMENT is made and entered into this _____ day of _____, _____, by and between Newnan Utilities (hereafter "the Utility") **and**

Name_____ (hereafter "Customer")

Customer Electric Service Address:

_____

Customer Information	System Installer Information
Name: _____	Company name: _____
Address: _____	Installer name: _____
Telephone: _____	Address: _____
Electric Account #:_____	Telephone: _____

In consideration of the mutual covenants set forth herein, the Parties agree as follows:

1. Scope and Purpose of Agreement

This Agreement describes only the conditions under which the Utility and the Customer agree that the distributed generating facility or facilities described in Exhibit A may be interconnected to and operated in parallel with the Utility electric distribution system. Other services the Customer may require from the Utility are covered under separate agreements.

The following exhibits are incorporated and made a part of this Agreement:

Exhibit A: Description of Customer's Distributed Generation Equipment/Facility

Exhibit B: Section A -Authorization to Connect OR Section B -Non-Authorization.

2. Term and Termination

2.1 This Agreement shall continue for one (1) year, effective the date of first operation of the power exchange system, but no later than three months after the Utility has installed the proper electric metering. This Agreement shall automatically renew for additional one-year periods following the expiration date if neither party gives the other notice of termination at least ninety (90)

days in advance of the expiration date of the original term or any one-year extension thereof.

2.2 Either party may terminate this Agreement at any time by providing 90 days written notice to the other party. In the event of a sale of the Customer's premises, then this Agreement will terminate upon that sale.

2.3 The Utility may terminate this Agreement at any time for violation of this Agreement upon written notice to the Customer.

2.4 At the time of termination of this Agreement for any reason, the Utility will perform lock out procedures to disconnect the Customer's System from the Utility's electric system.

3. Summary and Description of Customer's Distributed Generation Equipment/Facility to be Included in Exhibit A.

3.1 The Customer's eligible Distributed Generation System is a self-contained electric generation system including direct current disconnect apparatus, if applicable, alternating current disconnect/lockout, over-current protective device, and all related electrical equipment upstream of the over-current protective device, as set forth on Exhibit A (the "System"). The System begins and continues up-stream towards the distributed generation from the overcurrent protective device on the Customer's premises. However, the meter socket and related electrical connects are part of the System and are the responsibility of the Customer [i.e., all equipment from the main disconnect except the meter is Customer equipment].

3.2 Capacity of the Distributed Generation equipment is: _____kW.

3.3 The expected annual energy production of the Distributed Generation equipment is _____kWh.

3.4 The expected date of initial operation of the Distributed Generation equipment is: _____.

4. Installation and Permitting

4.1 Without limiting the provisions of paragraph 22, the Customer and the System must comply with all applicable National Electric Code (NEC), UL and IEEE requirements, including, but not limited to:

UL 1741-Standard for Static Inverters and Charge Controllers for Use with Photovoltaic Systems.

IEEE Standard 1547 (2003): Standard for Interconnecting Distributed Resources with Electric Power Systems. [NOTE: UL 1741 will soon be incorporated into IEEE 1547].

Other organizations, such as the Canadian Standards Association (CSA), test to UL 1741. If the inverter is tested by an organization other than Underwriters Laboratories, the test data must be submitted to the Utility.

The Customer at the Customer's expense must: 1) obtain all necessary electrical permits for the installation of the System and 2) obtain and maintain any government authorizations or permits required for the operation of the System. The Customer must reimburse the Utility for any and all losses, damages, claims, penalties or liability the Utility incurs as a result of Customer's failure to obtain or to maintain any governmental Authorization and permits required for construction and operation of the Customer's System.

4.2 The Customer or its contractor must construct the System as specified in the attached Exhibit A.

4.3 A manual, lockable, load-break disconnect switch that provides a clear indication of the switch position must be available with the System at or near the Customer's main point of service from the Utility's electric system to provide a point of electrical separation between the Customer's System and the Utility's electric system. The Utility will approve the location of the disconnect switch. The disconnect switch must be easily visible, mounted separately from the metering equipment, readily accessible to the Utility personnel at all times, and capable of being locked in the open position with the Utility's lock. The Utility may open the disconnect switch thereby isolating the Customer's System from the Utility electric system for any reason that the Utility deems necessary including, but not limited to, maintenance or emergency work, the System adversely affecting other customers of the Utility, failure of the System to comply with codes/regulations, the System creating hazardous or unsafe conditions, the Customer's failure to pay utility bills when due, and failure to comply with the UL Standards in Section 4.1 above.

4.4 Power Quality Requirements. All power quality parameters (i.e., voltage, flicker, frequency, distortion) are specified at the point of common coupling (PCC) unless otherwise stated. The following requirements must be met:

4.4.1. Voltage – the System must be capable of operating within normal voltage operating limits of 106-132 volts (88 -110% nominal 120V). This range results in trip points at 105 volts and 133 volts. Response to abnormal voltages should be as follows:

Voltage (at PCC)	Maximum Trip Time
V < 50%	10 cycles
50% ≤ V < 88%	120 cycles

88% < V < 110%	normal operation
110% < V < 120%	60 cycles
V ≥ 120%	10 cycles

4.4.2 Flicker – The System shall not create objectionable flicker for other Utility customers. Flicker is considered objectionable when it either causes a modulation of the light level of lamps sufficient to be irritating to humans or causes equipment malfunction. See IEEE 519-1992.

4.4.3 Frequency – The System must have a fixed frequency range of 59.3 to 60.5 Hz. When the interconnected system frequency is outside this range, the System shall cease to energize the Utility connection within 1-cycle.

4.4.4 Waveform Distortion (Harmonics) - The System must have low current-distortion levels to ensure that no adverse effects are caused to other equipment connected to the Utility's electric system. When the System is serving balanced linear loads, harmonic current injection into the Utility's network shall not exceed when measured following IEEE Std 1547:

Harmonics	h<11	11≤ h<17	17≤ h<23	23≤ h<35	35≤ h
per cent	4.0	2.0	1.5	0.6	0.3

Maximum Total Demand Distortion (TDD) 5.0%

Even harmonics are to be limited to 25% of the odd harmonics shown above.

4.4.5 Power Factor – The System must operate at a power factor >0.85 (leading or lagging) when output is greater than 10% of full load.

4.4.6 Islanding Protection – The System must cease to energize the utility line when the inverter is subjected to islanding conditions. The System must immediately, completely, and automatically disconnect from the Utility's electric system in the event of a fault on the Customer's System or loss of source on the Utility's electric system. The Utility, at its discretion and expense, may conduct periodic testing of anti-islanding. Anti-islanding is a means by which the Customer's System will cease to generate when it is still connected to the isolated (due to fault clearing or other switching) section of the Utility electric system.

4.5 The Customer's over-current protective device (Breaker) at the service panel must be dedicated and must be capable of interrupting the maximum available fault current. The Breaker shall be marked to indicate power source and connection to the Utility's electric system. The Utility will provide and

attach an additional label to the manual load-break disconnect switch, which is described in Subsection 4.3 above.

4.6 The Customer, at the Customer's expense, must pay for any additional equipment required to connect the System to the Utility's electric system.

5. Written Authorization Required to Connect System

The Customer may not connect the System to the Utility's electric system until 1) completion of the Utility's "Application for Interconnection of Distributed Generation Facility", 2) completion of the Utility's "Electrical Power Exchange Agreement", 3) this "Interconnection Agreement" has been fully executed by the parties, and 4) the System has been tested and approved. The Utility may have representatives present at the initial testing of the Customer's System and may perform (at its own expense) whatever testing of the Customer's System that the Utility deems necessary.

After written authorization to connect the System to the Utility's electric system has been given, the Customer shall make no changes or modifications in the System or of its mode of operation without the prior written approval of the Utility.

6. Warranty is Neither Expressed nor Implied

The Utility's inspection and approval, if any, of the System, is solely for the Utility's benefit and does not constitute a warranty, express or implied, as to the adequacy, safety, or other characteristics of any structures, equipment, wires, appliances or devices owned, installed or maintained by the Customer or leased by the Customer from third parties, including without limitation the System and any structures, wires, appliances or devices appurtenant thereto.

7. Indemnity and Liability

7.1 The Customer releases and agrees to indemnify, defend and hold harmless the Utility, its agents, officers, employees and volunteers from and against all damages, claims, actions, causes of action, demands, judgments, costs, expenses of every kind and nature, predicated upon injury to or death of any person or loss of or damage to any property, arising, in any manner, from the Customer's activities, actions or omissions related to this Agreement.

7.2 Nothing in this Agreement shall be construed as a waiver by the Utility of any rights, immunities, privileges, monetary limitations to judgments, and defenses available to the Utility under law.

8. Location of System

The System will be installed at the Customer's premises located at

_____

The Customer cannot relocate and connect the System at other premises or physical location without filing a new interconnection application with the Utility or requesting modifications to this Agreement allowing for connection at the alternate location. In the event that such approval is given, any relocation and installation of the System will be at the Customer's sole expense.

9. Access to Premises

The Customer will provide the Utility access to the Customer's premises to (i) inspect the Customer's System, (ii) to read and to replace meters, (iii) to open the load-break disconnect switch, and (iv) to disconnect the interconnection facilities at the Utility's meter or transformer.

10. Maintenance of Equipment

The Customer, at the Customer's sole cost and expense, will maintain the System including, but not limited to, all over-current protective equipment, in a safe and prudent manner and in conformance with all applicable laws, codes and regulation, including, but not limited to, the requirements of Section 4 above. The Customer must retain all records for such maintenance. These records must be available to the Utility for inspection at all reasonable times.

11. Safety

The Customer agrees to install, operate and maintain the System in a safe and prudent manner and in conformance with all applicable laws, codes, and regulations including, but not limited to, those contained in Section 4 above.

12. Assignment

This Agreement may not be assigned by the Customer without the prior written consent of the Utility, which may be withheld in its sole discretion. In the event of a sale of the Customer's premises, then this Agreement will terminate upon that sale. If the new Customer desires to continue receiving Service, the new Customer must enter into a new, separate agreement with the Utility.

13. Force Majeure

Neither party will be liable for delays in performing its obligations to the extent that the delay is caused by an unforeseeable condition beyond its reasonable control without fault or negligence, including but not limited to, riots, wars, floods, fires, explosions, acts of nature, acts of government, or labor disturbances.

14. Severability

If any provision of this Agreement is found to be illegal or unenforceable, then the remaining provisions of this Agreement will remain in full force and effect, and such term or provision will be deemed stricken for as long as it remains illegal or unenforceable.

15. Governing Law and Venue

15.1 Any tribunal enforcing this Agreement shall apply and construe it according to the laws of the State of Georgia.

15.2 In the event of any dispute over the Agreement's terms and conditions, the exclusive venue and jurisdiction for any litigation, arising there under will be in the Superior Court of Coweta County, Georgia, and, if necessary for exclusive federal questions, the United States District Court. The Customer waives any objection to jurisdiction or venue of any action instituted pursuant to this section and may not assert any defense in any such action based on lack of jurisdiction or venue or based upon Forum Non Conveniens. The Customer waives any bond or surety or security upon such bond or surety, which, but for this waiver, might be required by the Utility.

16. Survival

The provisions of this Agreement with respect to indemnification and liability will survive the termination of this Agreement.

17. Notices and Other Communications

Except as otherwise provided in this Agreement or as may be specified by the parties in writing, any notice or other communication required under this Agreement must be in writing and must be sent by registered or certified United States mail, or by messenger, or by facsimile, or by other electronic means to the addresses below. Any such notice or other communication must be addressed as follows and, if so addressed, will be effective upon actual receipt.

Customer: Name: _____

Title: _____

Address: _____

_____

Phone: _____

Fax: _____

Email: _____

Utility**:** Name: _____

Title: _____

Address: _____

_____

Phone: _____

Fax: _____

Email: _____

18. Entire Agreement

This Agreement, together with its attachments, constitutes the entire agreement between the parties and supersedes all previous written or oral communications, understandings, and agreements between the parties unless specifically stated otherwise within this Agreement. This Agreement may only be amended by a written agreement signed by both parties. Email and all other electronic (including voice) communications from the Utility in connection with this Agreement are for informational purposes only. No such communications are intended by the Utility to constitute either an electronic record or an electronic signature or to constitute any agreement by the Utility to conduct a transaction by electronic means. Any such intention or agreement is expressly disclaimed.

19. Acknowledgements Regarding Agreement

By signing below, the Customer acknowledges understanding of the terms of this Agreement and that the Customer may not connect the System to the Utility's electric system until the Customer has received written authorization to connect from the Utility. Within 60 days after notice from the Customer that the System is ready for interconnection to the Utility's electric system, the Utility will inspect the System and will provide a written authorization to connect the System or a statement that the System may not be connected because of non-compliance with this Agreement.

20. Compliance with Ordinances and Regulations

The Customer shall perform all obligations under this Agreement in strict compliance with all applicable federal, state, and Utility laws, rules, statutes, charter provisions, ordinances and regulations, and any other applicable law and the Utility's service rules, regulations, terms, policies and procedures, as amended from time to time, which are incorporated herein by this reference.

21. Beneficiaries

This Agreement is for the sole benefit of and binds the parties, their successors and assigns. This Agreement affords no claim, benefit, or right of action to any third party. Any party besides the Utility or the Customer receiving services or benefits under this Agreement is only an incidental beneficiary.

22. Status of Customer

The Customer shall perform all operations under this Agreement as an independent Contractor, and not as an agent or employee of the Utility. No Utility official or employee shall supervise the Customer. The Customer will exercise no supervision over any employee or official of the Utility. The Customer shall not represent that Customer is an employee or agent of the Utility in any capacity. The Customer has no right to Worker's Compensation benefits from the Utility or its insurance carriers or funds.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed on the day and year set forth below.

_____	_____
Utility Official	Customer Signature
_____	_____
Print Name	Print Name
Date: _____	Date: _____

Exhibit A

Insert Description of System

Exhibit B

Section A: Authorization. The System may be connected to the Utility's electric system.

The System has been inspected and tested, and the Customer is authorized to connect the System to the Utility's electric system.

Signed by:

_____
Printed Name

_____
Printed Title

_____
Date

OR

Section B: Non-Authorization. The System cannot be connected to the Utility's electric system.

The System does not comply with the Interconnection Agreement for Parallel Operation of Small Distributed Resources, and the Interconnection Customer cannot connect the System to the Utility's electric system.

Signed by:

_____
Printed Name

_____
Printed Title

_____
Date