

# ELECTRIC COOPERATIVE

## Application for Operation of Customer-Owned Generation

This application should be completed and returned to the Cooperative Customer Service representative in order to begin processing the request. See Customer Guidelines for Electric Power Generator Installation and Interconnection for additional information.

INFORMATION: This application is used by the Cooperative to determine the required distribution equipment configuration for the Customer generation interface. Every effort should be made to supply as much information as possible. Submittal of Application Does Not Guarantee Approval for Interconnection.

Application is reviewed based on equipment listed herein. Customer shall promptly notify Cooperative if proposed generation or associated equipment is changed after an application is submitted. Failure to do so may delay the interconnection of Customer Owned Generation. The AC KW system rating for residential installations shall not exceed 10 KW and shall not exceed 100 KW for a commercial installation.

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### PART 1

#### OWNER/APPLICANT INFORMATION

Flint Account Number: \_\_\_\_\_

Owner/Customer

Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Generation Physical Address (Street/City/State/Zip): \_\_\_\_\_

Phone Number: \_\_\_\_\_ Representative: \_\_\_\_\_

Email Address: \_\_\_\_\_ Fax Number: \_\_\_\_\_

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#### PROJECT DESIGN/ENGINEERING (ARCHITECT) (as applicable)

Company: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone Number: \_\_\_\_\_ Representative: \_\_\_\_\_

Email Address: \_\_\_\_\_ Fax Number: \_\_\_\_\_

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#### ELECTRICAL CONTRACTOR (as applicable)

Company: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone Number: \_\_\_\_\_ Representative: \_\_\_\_\_

Email Address: \_\_\_\_\_ Fax Number: \_\_\_\_\_

**TYPE OF GENERATOR (as applicable)**

Photovoltaic \_\_\_\_\_ Wind \_\_\_\_\_ Microturbine \_\_\_\_\_  
Diesel Engine \_\_\_\_\_ Gas Engine \_\_\_\_\_ Combustion Turbine \_\_\_\_\_  
Other \_\_\_\_\_

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**ESTIMATED LOAD, GENERATOR RATING AND MODE OF OPERATION INFORMATION**

The following information is necessary to help properly design the Cooperative customer interconnection.  
This information is not intended as a commitment or contract for billing purposes.

Total Site Load \_\_\_\_\_ (kW)  
Residential \_\_\_\_\_ Commercial \_\_\_\_\_ Industrial \_\_\_\_\_  
Generator Rating \_\_\_\_\_ (kW) [Provide A/C Rating for Solar Applications]  
Annual Estimated Generation \_\_\_\_\_ (kWh)

**Mode of Operation**

Isolated \_\_\_\_\_ Paralleling \_\_\_\_\_ Power Export \_\_\_\_\_

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**DESCRIPTION OF PROPOSED INSTALLATION AND OPERATION**

Give a general description of the proposed installation, including a detailed description of its planned location, the date you plan to operate the generator, the frequency with which you plan to operate it and whether you plan to operate it during on or off-peak hours.

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## PART 2

(Complete all applicable items. Copy this page as required for additional generators)

### SYNCHRONOUS GENERATOR DATA

Unit Number: \_\_\_\_\_ Total number of units with listed specifications on site: \_\_\_\_\_  
Manufacturer: \_\_\_\_\_  
Type: \_\_\_\_\_ Date of manufacture: \_\_\_\_\_  
Serial Number (each): \_\_\_\_\_  
Phases: Single Three R.P.M.: \_\_\_\_\_ Frequency (Hz): \_\_\_\_\_  
Rated Output (for one unit): \_\_\_\_\_ Kilowatt \_\_\_\_\_ Kilovolt-Ampere  
Rated Power Factor (%): \_\_\_\_\_ Rated Voltage (Volts): \_\_\_\_\_ Rated Amperes: \_\_\_\_\_  
Field Volts: \_\_\_\_\_ Field Amps: \_\_\_\_\_ Motoring power (kW): \_\_\_\_\_  
Synchronous Reactance ( $X_d$ ): \_\_\_\_\_ % on \_\_\_\_\_ KVA base  
Transient Reactance ( $X'_d$ ): \_\_\_\_\_ % on \_\_\_\_\_ KVA base  
Subtransient Reactance ( $X''_d$ ): \_\_\_\_\_ % on \_\_\_\_\_ KVA base  
Negative Sequence Reactance ( $X_s$ ): \_\_\_\_\_ % on \_\_\_\_\_ KVA base  
Zero Sequence Reactance ( $X_o$ ): \_\_\_\_\_ % on \_\_\_\_\_ KVA base  
Neutral Grounding Resistor (if applicable): \_\_\_\_\_

$I_2^2t$  or K (heating time constant): \_\_\_\_\_  
Additional information: \_\_\_\_\_

### INDUCTION GENERATOR DATA

Rotor Resistance ( $R_r$ ): \_\_\_\_\_ ohms Stator Resistance ( $R_s$ ): \_\_\_\_\_ ohms  
Rotor Reactance ( $X_r$ ): \_\_\_\_\_ ohms Stator Reactance ( $X_s$ ): \_\_\_\_\_ ohms  
Magnetizing Reactance ( $X_m$ ): \_\_\_\_\_ ohms Short Circuit Reactance ( $X_d''$ ): \_\_\_\_\_ ohms  
Design letter: \_\_\_\_\_ Frame Size: \_\_\_\_\_  
Exciting Current: \_\_\_\_\_ Temp Rise (deg C°): \_\_\_\_\_  
Reactive Power Required: \_\_\_\_\_ Vars (no load), \_\_\_\_\_ Vars (full load)  
Additional information: \_\_\_\_\_

### PRIME MOVER (Complete all applicable items)

Unit Number: \_\_\_\_\_ Type: \_\_\_\_\_  
Manufacturer: \_\_\_\_\_  
Serial Number: \_\_\_\_\_ Date of manufacture: \_\_\_\_\_  
H.P. Rated: \_\_\_\_\_ H.P. Max.: \_\_\_\_\_ Inertia Constant: \_\_\_\_\_ lb.-ft.<sup>2</sup>  
Energy Source (hydro, steam, wind, etc.) \_\_\_\_\_

### GENERATOR TRANSFORMER (Complete all applicable items)

TRANSFORMER (between generator and utility system)

Generator unit number: \_\_\_\_\_ Date of manufacture: \_\_\_\_\_  
Manufacturer: \_\_\_\_\_  
Serial Number: \_\_\_\_\_  
High Voltage: \_\_\_\_\_ KV, Connection: delta wye, Neutral solidly grounded? \_\_\_\_\_  
Low Voltage: \_\_\_\_\_ KV, Connection: delta wye, Neutral solidly grounded? \_\_\_\_\_  
Transformer Impedance ( $Z$ ): \_\_\_\_\_ % on \_\_\_\_\_ KVA base.  
Transformer Resistance ( $R$ ): \_\_\_\_\_ % on \_\_\_\_\_ KVA base.  
Transformer Reactance ( $X$ ): \_\_\_\_\_ % on \_\_\_\_\_ KVA base.  
Neutral Grounding Resistor (if applicable): \_\_\_\_\_

## INVERTER DATA (if applicable)

Manufacturer: \_\_\_\_\_ Model: \_\_\_\_\_  
Rated Power Factor (%): \_\_\_\_\_ Rated Voltage (Volts): \_\_\_\_\_ Rated Amperes: \_\_\_\_\_  
Rated Output (KW): \_\_\_\_\_ [AC Rating]  
Inverter Type (ferroresonant, step, pulse-width modulation, etc): \_\_\_\_\_

Type commutation: forced line  
Harmonic Distortion: Maximum Single Harmonic (%) \_\_\_\_\_  
Maximum Total Harmonic (%) \_\_\_\_\_

**Note: Attach all available calculations, test reports, and oscillographic prints showing inverter output voltage, rated output [AC Rating] and current waveforms.**

## POWER CIRCUIT BREAKER (if applicable)

Manufacturer: \_\_\_\_\_ Model: \_\_\_\_\_  
Rated Voltage (kilovolts): \_\_\_\_\_ Rated ampacity (Amperes) \_\_\_\_\_  
Interrupting rating (Amperes): \_\_\_\_\_ BIL Rating: \_\_\_\_\_  
Interrupting medium / insulating medium (ex. Vacuum, gas, oil ) \_\_\_\_\_ / \_\_\_\_\_  
Control Voltage (Closing): \_\_\_\_\_ (Volts) AC DC  
Control Voltage (Tripping): \_\_\_\_\_ (Volts) AC DC Battery Charged Capacitor  
Close energy: Spring Motor Hydraulic Pneumatic Other: \_\_\_\_\_  
Trip energy: Spring Motor Hydraulic Pneumatic Other: \_\_\_\_\_  
Bushing Current Transformers: \_\_\_\_\_ (Max. ratio) Relay Accuracy Class: \_\_\_\_\_  
Multi ratio? No Yes: (Available taps) \_\_\_\_\_

## ADDITIONAL INFORMATION FOR APPLICANT

*In addition to the items listed above, please attach a detailed one-line diagram of the proposed facility, all applicable elementary diagrams, major equipment, (generators, transformers, inverters, circuit breakers, protective relays, etc.) specifications, test reports, etc., and any other applicable drawings or documents necessary for the proper design of the interconnection. Also describe the project's planned operating mode (e.g., combined heat and power, peak shaving, etc.), and its address or grid coordinates.*

**Failure to provide completed application or information requested in this section will result in a rejected application until the requested data is provided. An application will be evaluated based on Customer owned generation and associated equipment listed herein. Applicant must immediately contact the Cooperative with any changes, upgrades or omissions to this application. Failure to notify the Cooperative of changes may result in delayed approval or denial of this application.**

**If this application is approved, any future maintenance, repairs or upgrades resulting in a generation capacity increase will require approval of Cooperative prior to commencement of modifications by Customer. The original installation and future changes are subject to Cooperative's applicable Service Rules & Regulations and tariffs.**

## END OF PART 2

### SIGN OFF AREA

The customer agrees to provide the Cooperative with any additional information required to complete the interconnection. The customer shall operate his equipment within the guidelines set forth by the cooperative.

\_\_\_\_\_  
Applicant

\_\_\_\_\_  
Date

### ELECTRIC COOPERATIVE CONTACT FOR APPLICATION SUBMISSION AND FOR MORE INFORMATION:

Cooperative contact: Energy Services - Rod Green  
Title: Manager of Field & energy Services  
Address: 98 Carl Vinson Parkway  
Warner Robins, Ga. 31088  
Phone: 478-988-3500 ext. 5506  
e-mail: energyservices@flintemc.com

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Return to:  
Executive Services  
Flint EMC  
P.O. Box 7089  
Warner Robins, GA 31095-7089

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**RECORDABLE NOTICE OF AGREEMENT**

STATE OF GEORGIA  
COUNTY OF \_\_\_\_\_

**THIS INDENTURE**, Made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_, by and between **Flint Electric Membership Corporation**, hereinafter called "Flint" and \_\_\_\_\_ called "Owner".

**WITNESSETH:**

Flint does hereby enter into a Distributed Generation/Interconnection Agreement (the "Agreement") with Owner and does hereby agree to receive from Owner all excess electric energy produced by Owner's distributed generation electric facility, upon the terms and conditions set forth in the Agreement between the parties dated contemporaneously herewith and said distributed generation/interconnection facilities being on the following described property, to-wit:

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The consideration for this instrument are the terms and conditions of the Agreement and the terms thereof are incorporated herein by reference thereto for all purposes. For so long as said interconnection and distributed generation equipment operates on Owner's property, the incorporated Agreement shall remain in full force and effect and shall be a covenant running with the hereinabove described land.

IN WITNESS WHEREOF, Flint and Owner have executed this instrument the day and year first above written.

Signed, sealed and delivered In the presence of:

FLINT ELECTRIC MEMBERSHIP CORPORATION

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Walker Fricks  
Vice President of Engineering & Operations  
(Corporate Seal)

\_\_\_\_\_  
Notary Public

OWNER(S):

OWNER(S):

\_\_\_\_\_  
Print:\_\_\_\_\_

\_\_\_\_\_  
Print:\_\_\_\_\_

Signed, sealed and delivered In the presence of:

Signed, sealed and delivered In the presence of:

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Notary Public

\_\_\_\_\_  
Notary Public



## Net Metering and Interconnection Agreement For Distributed Generation of 100.0 KW and Under

This Interconnection Agreement ("Agreement") is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_, by **Flint Electric Membership Corporation**, ("Cooperative"), a cooperative corporation organized under the laws of Georgia, and \_\_\_\_\_ ("DG Owner/Operator"), each hereinafter sometimes referred to individually as "Party" or both referred to collectively as the "Parties".

The purpose of this Agreement is to provide for the safe and orderly operation of the electrical facilities interconnecting the DG Owner/Operator's \_\_\_\_\_ kW (AC rating) facility at \_\_\_\_\_ (location of generator-solar panels, wind turbine, electrical generator, etc.) (the "Generator") and the electrical distribution facility owned by the Cooperative.

This Agreement does not supersede any requirements of any by-laws, applicable tariffs, rates, rules, and regulations in place between the DG Owner/Operator and the Cooperative.

In consideration of one dollar (\$1.00), the agreement and mutual covenants set forth herein, the Parties agree as follows:

1. **Operator in Charge:** The Operator in Charge is the person identified by name or job title responsible for the daily operation of all electrical facilities related to the Generator and interconnection.

The operator in charge for the DG Owner/Operator is:

Name: \_\_\_\_\_  
Street/City/State/Zip: \_\_\_\_\_

2. **Suspension of Interconnection:** Generator interconnection shall not compromise the Cooperative's electric distribution facility protection or operational requirements. The operation of the DG Owner/Operator's System and the quality of electric energy supplied by the DG Owner/Operator shall meet the standards as specified by Cooperative. If the operation of the DG Owner/Operator's system or quality of electric energy supplied, in the case of power export, does not meet the standards as specified, then the Cooperative will notify the DG Owner/Operator to take reasonable and appropriate corrective action. The Cooperative shall have the right to disconnect the DG Owner/Operator's System until compliance is reasonably demonstrated. Further, Cooperative may disconnect the DG Owner/Operator's Generator from Cooperative's distribution facility without notice if the operation of the Generator imposes a threat, in the Cooperative's sole judgement, to life, property, or safety of Cooperative's employees or contractors.

3. **Maintenance Outages:** Maintenance outages will occasionally be required on the Cooperative's system. Power outages on Cooperative's distribution system can occur with or without notice. The Generator shall disconnect from Cooperative's electric distribution system immediately when a power outage occurs. It shall not reconnect until power has been restored.

4. **Access:** Access is always required by Cooperative to the DG Owner/Operator's Generator site for interconnection point maintenance, operation, inspection, and meter reading. Cooperative reserves the right, but not the obligation, to inspect the DG Owner/Operator's facilities and to verify DG Owner/Operator's equipment ratings.

5. **Disconnect:** The DG Owner/Operator shall install a NEMA rated disconnect switch at the interconnection point rated for proper voltage and current based on the National Electrical Code between Cooperative's electric distribution facilities and the Generator. The disconnect will be marked "DG Disconnect. Cooperative employees or its contractors may open the disconnect when working on Cooperative facilities or anytime a power outage occurs on Cooperative's electric distribution system. A disconnect switch must be capable of being locked in the "Open" position by Cooperative for any safety reason. The disconnect switch shall be a type that provides a visible air gap when in the "Open" position.

6. **Generator Operation:** Generator installation, operation, and maintenance shall meet IEEE 1547 standards, National Electric Safety Code, Underwriters Laboratories, National Electrical Code and other federal, state, and local regulations. Particular attention shall be given to synchronization, voltage stability and regulation, protection from short circuits on both the Cooperative's and DG Owner/Operator's systems. It is the DG Owner/Operator's responsibility for synchronization and all other protection functions necessary for operating in parallel with Cooperative's electric distribution system. DG Owner/Operator's Generator shall disconnect from Cooperative's electrical distribution system immediately when a power outage occurs on Cooperative electric distribution facilities serving the DG Owner/Operators Generator site. **Maintenance, repairs, or upgrades resulting in increased generation capacity must be approved by the Cooperative before DG Owner/Operator commences work. Increasing generation capacity without prior approval may result in a termination of this Agreement.**

7. **Interconnection:** After review of DG Owner's Application for Customer Owned Generation, the Cooperative will determine if an interconnection study is required based on DG Owner/Operator's proposed generation and Cooperative's existing facilities. If required, the cost of an interconnection study is \$0.00 and shall be paid in advance. The Cooperative does not assume any duty of inspecting the DG Owner/Operator's lines, wires, switches, or other equipment or property for proper installation and/or operation and will not be responsible, therefore. DG Owner/Operator assumes all responsibility for the electric service supplied hereunder and the facilities used in connection therewith at or beyond the Point of Interconnection.

8. **Billing:** DG/Owner Operator will be billed for "Excess Net Energy" according to Cooperative's Net Energy Metering Rider. Net metering equipment will be installed on DG Owner/Operator's Generator location. Installation cost of Cooperative facilities necessary to interconnect DG Owner/Operator's Generator system to Cooperative's electric distribution system is a nonrefundable Distributed Generation Administrative fee of **\$500** plus any additional cost for equipment called for in an interconnection study. Cost shall be paid to Cooperative by DG/Owner in advance.

9. **Service Rules and Regulations:** As a Cooperative Member, DG Owner/Operator will be bound to follow Cooperative's Bylaws and Service Rules and Regulations for electric service, which are incorporated herein by reference.

10. **Term:** This Agreement becomes effective when executed by both Parties and shall continue in effect until terminated. It may be canceled by DG Owner with not less than 30 days' notice to the other party. Cooperative may cancel this Agreement immediately if DG Owner/Operator is in breach of Agreement or if the Generator is inactive for 6 consecutive months.

11. **Miscellaneous:**

a. **Force Majeure:** If a Force Majeure event prevents a party from fulfilling any obligations under this Agreement, such party will promptly notify the other party in writing and will keep the other party informed on a continuing basis as to the scope and duration of the Force Majeure event. The affected party will specify the circumstances of the Force Majeure event, its expected duration, and the steps that the affected party is taking to mitigate the effect of the event on its performance. The affected party will

be entitled to suspend or modify its performance of obligations under this Agreement but will use reasonable efforts to resume its performance. For the purposes of this Agreement, a Force Majeure event is any event: (a) that is beyond the reasonable control of the affected party; and (b) that the affected party is unable to prevent or provide against by exercising reasonable diligence, including the following events or circumstances, but only to the extent that they satisfy the preceding requirements: acts of war, terrorism, public disorder, rebellion or insurrection; floods, wind, hurricanes, earthquakes, lighting or storms or other natural calamities; explosions or fires; strikes, work stoppages or labor disputes; embargoes; and sabotage.

- b. **Hold Harmless:** The DG Owner/Operator agrees to indemnify and hold harmless the Cooperative from any claims, demands, costs, losses, causes of action, damages or liability of whatsoever kind or nature, arising out of or resulting from the construction, operation, or maintenance of the DG Owner/Operator's Generator; and the Cooperative agrees to indemnify and hold harmless the DG Owner/Operator from any claims, demands, costs, losses, causes of action, damage or liability of whatsoever kind or nature, arising out of or resulting from the construction, operation, or maintenance of the Cooperative's facilities.
- c. **Applicable Law:** This Agreement shall be construed under the laws of the State of Georgia without regard to the conflicts of law rules of such state. Jurisdiction and Venue for all purposes shall be the Superior Court of Houston County, Georgia.
- d. **Entire Agreement:** This Agreement, and any attached exhibits, constitutes the entire agreement between the Parties with respect to the subject matter of the Agreement and supersedes all prior agreements and understandings, both oral and written, between the parties with respect to the subject matter of the Agreement.
- e. **Amendments:** Any provision of this Agreement may be amended or waived, but only if such amendment of waiver is in writing and is signed, in the case of an amendment, by all parties to this Agreement or, in the case of a waiver, by the party against whom the waiver is to be effective. No failure or delay by any party in exercising any right, power or privilege hereunder shall operate as a waiver thereof, nor shall any single or partial exercise thereof preclude any other or further exercise thereof or the exercise of any other right, power, or privilege.
- f. **Captions:** Section captions herein are for convenience of reference only and neither limit nor amplify the provisions of this Agreement and shall be disregarded in the construction hereof.
- g. **Invalidity:** If any provision of this Agreement or parts of a provision contained herein shall, for any reason, be held invalid, illegal, or unenforceable in the State of Georgia, such determination of invalidity, illegality, or unenforceability shall not affect any other provision or part of a provision, but this Agreement shall be reformed and construed as if such invalid, illegal or unenforceable provision or part of a provision had never been contained herein and shall be reformed so that it would be valid, legal and enforceable to the maximum extent permitted in the State of Georgia.
- h. **Assignment:** The provisions of this Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns.
- i. **Third Party Beneficiaries:** No provision of this Agreement is intended to or shall confer any rights, benefits, remedies, obligations, or liabilities upon any person or entity other than the parties hereto and their respective successors and permitted assigns.
- j. **Tampering:** In accordance with O.C.G.A. 16-7-25 and local ordinances (where applicable) damaging, injuring, interfering with a meter or related equipment, including meter base wiring, is unlawful and may

result in prosecution. **The member** must pay the cost of repair or replacement of equipment or wiring damaged by Tampering in addition to payment of a non-refundable \$500 tampering fee, non-refundable \$25 cut-seal fee, and service charges incurred for reconnection of service in accordance with the appropriate trip charges (during or after regular working hours) as a result of Tampering by the member or the member's agent, contractor, or volunteer.

- k. **Billing Due Date:** The DG owner/operator agrees to a bill due date change with the new bill due date being the 7th day of each month.

IT IS SO AGREED, the day and year first above written:

DG Owner/Operator

Cooperative

\_\_\_\_\_

\_\_\_\_\_

Owner/Operator

Walker Fricks

Vice President of Engineering & Operations

\_\_\_\_\_

Owner/Operator