

**Crawford Electric Cooperative**  
**APPLICATION AND AGREEMENT FOR INTERCONNECTION AND NET**  
**METERING OF RENEWABLE ENERGY SYSTEMS WITH CAPACITY OF 100 kW OR LESS**

*Cooperative Use Only:*  
RECEIVED ON: \_\_\_\_\_  
BY: \_\_\_\_\_

**PROCEDURES:**

**I. Members Applying for New Interconnection/Submission of Plans/Specifications.**

Complete Sections **A, B, C, D, F** and **G** attaching all required documents, plans, diagrams, etc. as required by the applicable section(s) of this Application and Agreement and return to the Cooperative.

If the rated output of the proposed Member-Generator's System is less than 10 kW, you will be provided with an approval or denial of this Application and Agreement within thirty (30) days of receipt by Cooperative. If the rated output of the Member-Generator System is more than 10 kW, you will be provided with an approval or denial of this Application and Agreement within ninety (90) days of receipt by Cooperative. If this Application and Agreement is denied, you will be provided with the reason(s) for the denial.

**II. Members Having Received Approval of Application and Submitted Plans/Specifications.**

Construct the Member-Generator System in compliance with the approved plans and specifications set forth in the Application and Agreement. After construction is finished, complete Section **H**, and re-submit this Application and Agreement to the Cooperative for review and final approval (Section **I**).

Upon receipt of a completed Application and Agreement (including Section **H**) and payment of any applicable costs or other aid to construction, Cooperative will interconnect the Member-Generator's System to Cooperative's electrical system within fifteen (15) business days if electric service already exists to the premises or no later than fifteen (15) business days after service is established to the premises, unless the Member-Generator and Cooperative mutually agree to a later date.

**III. Member Assuming Ownership or Operational Control of an Existing Interconnected Member-Generator System.** Complete Sections **A, B, C, D, F, G** and **H** attaching all required documents, diagrams, etc. as required by the applicable section(s) of this Application and Agreement and return to Cooperative for review and final approval of the Cooperative (Section **I**).

**IV. Member Adding Additional Capacity to an Approved System.**

Member-Generators adding additional capacity to a previously-approved system shall submit the Member Generator System Additional Capacity Interconnection Notice ("Notice") for review and final approval according to the timelines based on size of the capacity addition in Section I above. Any such approved Notice will then be incorporated in to this Application and Agreement as though a single agreement and the Notice will be subject to the terms and conditions of this Application and Agreement.

**INTERCONNECTION REQUEST:**

**A. Member-Generator's Information**

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

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

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

Service/Street Address (if different from above): \_\_\_\_\_

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

Daytime Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ E-Mail: \_\_\_\_\_

Cell Phone: \_\_\_\_\_ Emergency Contact Phone: \_\_\_\_\_

Cooperative Account No. (from Electric Bill): \_\_\_\_\_

**B. Member-Generator's System Information**

Please check appropriate box and fill out all applicable information:

New system: \_\_\_\_\_ Transfer of existing system to new owner: \_\_\_\_\_

**System Information**

Manufacturer's Name Plated Output: AC Power Rating: (rated) \_\_\_\_\_ kW; (max) \_\_\_\_\_ kW

Voltage: \_\_\_\_\_ Volts

System Type: Solar \_\_\_ Wind \_\_\_ Biomass \_\_\_ Fuel Cell \_\_\_

Other Renewable (describe) \_\_\_\_\_

Optional Information: Is system connected to a battery bank for backup power?

Yes \_\_\_ No \_\_\_, If so, battery output AC Power Rating: (rated) \_\_\_\_\_ kW; (max) \_\_\_\_\_ kW

Service/Street Address: \_\_\_\_\_

Inverter/Interconnection Equipment Manufacturer: \_\_\_\_\_

Inverter/Interconnection Equipment Model No.: \_\_\_\_\_

Are Required Wiring Diagram, System Plans & Specifications Attached? Yes \_\_\_ No \_\_\_

Inverter/Interconnection Equipment Location (describe): \_\_\_\_\_

Outdoor Manual / Utility Accessible & Lockable Disconnect Switch Location (describe):

Location and Description of Automatic Mechanism to Disable the System and Prevent Back-feed:

Existing Electrical Service Capacity: \_\_\_\_\_ Amperes Voltage: \_\_\_\_\_ Volts

Service Character: Single Phase \_\_\_ Three Phase \_\_\_

**Transfer of Existing System to New Owner**

Previous owner Name: \_\_\_\_\_

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

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

Has additional capacity been installed to existing system? If so, submit the Member Generator System Additional Capacity Interconnection Notice (“Notice”) for review and final approval according to the timelines based on size of the capacity addition in Section I above. Any such approved Notice will then be incorporated in to this Application and Agreement as though a single agreement and the Notice will be subject to the terms and conditions of this Application and Agreement.

**C. Installation Information**

County / City Permit Number (if applicable): \_\_\_\_\_

Person or Company Installing: \_\_\_\_\_

Contractor’s License No. (if applicable): \_\_\_\_\_

Approximate Installation Date: \_\_\_\_\_

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

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

Daytime Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ E-Mail: \_\_\_\_\_

Cell Phone: \_\_\_\_\_ Emergency Contact Phone: \_\_\_\_\_

**D. Installation Compliance**

Qualified Professional Electrician or Engineer Who Will Inspect/Certify Installation:

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

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

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

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Email: \_\_\_\_\_

*(Remainder of page intentionally left blank)*

## **TERMS AND CONDITIONS:**

**E.** In addition to abiding by the Cooperative's Bylaws, rules, policies and regulations, Member-Generator by completing and signing this Application and Agreement, agrees to comply with the following specific terms and conditions:

**1. Required Documentation.** Member-Generator shall provide a site specific wiring diagram, the plans and specifications describing the net metering, parallel generation, and interconnection facilities (herein collectively referred to as the "Member-Generator's System") and submit them to Cooperative as set forth in this Application and Agreement and as may be required under any Member Generator System Additional Capacity Interconnection Notice

**2. Binding Contract.** When this fully completed and executed Member-Generator Application and Agreement receives final approval from Cooperative, it shall become a binding contract and shall govern your relationship with Cooperative in regard to interconnection and net metering of the Member-Generator System and shall govern the installation of any additional Member-Generator System capacity. All Applications and Agreements receiving final approval from Cooperative must be acted upon by the Member-Generator within one year of the date of approval.

**3. Operation/Disconnection.** If it appears to Cooperative, that at any time and in the reasonable exercise of its judgment, that operation of the Member-Generator's System is adversely affecting safety, power quality or reliability of Cooperative's electrical system, Cooperative may immediately disconnect and lock-out Member-Generator's System from Cooperative's electrical system. Member-Generator shall permit Cooperative's employees and inspectors reasonable access to inspect, test, and examine Member-Generator's System to determine if same is adversely affecting safety, power quality or reliability of Cooperative's electrical system.

**4. Metering Equipment.** Member-Generator's System shall be equipped with sufficient metering equipment capable of measuring the net amount of electrical energy both produced and consumed by the Member-Generator, either by employing a single, bi-directional meter that measures the amount of electrical energy produced and consumed, or by employing multiple meters that separately measure the Member-Generator's consumption and production of electricity.

**5. Costs of Generator System, Additional Metering and Other Equipment.** Member-Generator shall, at Member-Generator's cost and expense, install, operate, maintain, repair, and inspect, and otherwise be fully responsible for Member-Generator's System. Member-Generator further agrees to pay or reimburse Cooperative for all costs of additional metering beyond the Member-Generator's existing meter equipment and any additional distribution equipment necessary for Cooperative to interconnect the Member-Generator's System. Cooperative shall in its sole discretion determine the specific type of metering equipment necessary for Cooperative to interconnect the Member-Generator's System.

Upon written request of the Member-Generator Cooperative may initially pay the costs of additional metering and distribution equipment necessary for Cooperative to interconnect the Member-Generator's System. Thereafter, such costs, including a reasonable interest charge, shall be repaid by the Member-Generator to Cooperative over the course of the twelve billing cycles following interconnection of the Member-Generator's System.

Member-Generator's payment or reimbursement of Cooperative's costs for additional metering and other equipment shall be construed as aid to construction only and Member-Generator will not acquire any ownership interest in meters, wiring, safety devices or other equipment installed by Cooperative at Members-Generator's site. Cooperative may install and maintain, at its expense, load research metering for monitoring the Member's energy generation and usage and thereafter use or disclose to others all data collected in any manner deemed appropriate by the Cooperative.

**6. Severability.** If any portion or provision of this Application and Agreement is held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction, such portion shall be deemed separate and

independent, and the remainder of this Application and Agreement shall remain in full force and effect.

**7. Counterparts.** This Agreement may be signed and executed in two or more counterparts, each of which shall be deemed an original, but all of which shall constitute but one and the same instrument.

**8. Counterparts and Electronic Signatures.** This Application and Agreement may be executed using facsimile or electronic signatures and such facsimile or electronic version of the Application and Agreement shall have the same legally binding effect as an original paper version. This Application and Agreement may be executed in counterparts, each of which shall be deemed an original.

**9. Meter Reading.** The meter reading necessary to determine the net amount of electrical energy produced and consumed by the Member-Generator shall be conducted by the Cooperative monthly. The term “monthly” for billing purposes shall mean the period between any two consecutive regular readings by Cooperative for the meter(s) at the Member-Generator's System, such readings to be taken as nearly as may be practicable every thirty (30) days.

Member-Generator shall supply, without cost to Cooperative, an accessible and suitable location, as mutually agreed to between Member-Generator and Cooperative, for the meter(s) used for billing, load research and emergency disconnection equipment. All meters used for billing, load research and emergency disconnection equipment shall be accessible at all times to Cooperative personnel.

**10. Energy Value and Billing.** Section 386.890 RSMo. Supp. 2015, sets forth the method and manner of valuation and billing of electric energy provided by Cooperative to Member-Generator and by Member-Generator to Cooperative.

The value of that amount of electric energy delivered by Cooperative and consumed by Member-Generator in excess of the amount of electric energy generated by the Member-Generator's System shall be billed in accordance with the Cooperative's rate schedule applicable to members in the same rate class as the Member-Generator.

The value of that amount of electric energy delivered by Member-Generator to Cooperative's system in excess of the amount of electric energy delivered to the Member-Generator by the Cooperative shall be determined by multiplying the number of excess kWh delivered by Member-Generator to Cooperative by the average monthly avoided fuel cost of Associated Electric Cooperative, Inc. (AECI) during the billing period. The Member-Generator shall receive credits equal to the value of the electric energy delivered to Cooperative. Credits will be applied to the next billing period following issuance of the credits. The credits shall expire without any compensation at the earlier of either twelve months after their issuance or when the Member-Generator disconnects service or terminates the net metering relationship with Cooperative. Member-Generator agrees that credits will be applied to the billing statement for the meter location to which the Member-Generator system is connected.

**11. Cooperative's Limited Liability.** With respect to Cooperative's provision of electric service to Member-Generator and the services provided by Cooperative pursuant to this Application and Agreement, Cooperative's liability shall be limited to claims, losses, costs and expenses that result from Cooperative's gross negligence or other willful misconduct, shown by clear and convincing evidence, in connection with the operation or maintenance of its electric distribution system.

**12. No Energy Sales to Cooperative.** Member-Generator agrees that interconnection of the Member-Generator's System with the Cooperative's electrical system does not grant Member-Generator the right to export power, nor does it constitute an agreement by Cooperative to purchase power or wheel Member-Generator's excess power.

**13. Terms and Termination Rights.** This Application and Agreement becomes effective when signed by all parties hereto, and shall continue in effect until terminated. Thereafter, Member-Generator may terminate this Application and Agreement at any time by giving Cooperative at least thirty (30) days prior written notice. In such

event, Member-Generator shall, no later than the date of termination of the Application and Agreement, completely disconnect Member-Generator's System from parallel operation with Cooperative's electric distribution system. A representative of Cooperative shall be present to witness the disconnect of the Member-Generator's System or thereafter have the right to examine the Member-Generator's System so as to verify that it has been physically disconnected from Cooperative's electrical system. Any party may terminate this Agreement by giving the other parties at least thirty (30) days prior written notice that another party is in default of any of the terms and conditions of this Application and Agreement, except default by Member-Generator in payment of their power bill from Cooperative, so long as the notice specifies the basis for termination, and there is a reasonable opportunity to cure the default. If Member-Generator is in default because of failure to timely pay their power bill, Cooperative may terminate this Application and Agreement upon disconnection of electric service by Cooperative to Member-Generator under Cooperative's applicable policies. This Application and Agreement may also be terminated at any time by mutual written agreement of the parties hereto.

**14. Transfer of Ownership.** If ownership or operational control of Member-Generator's System transfers to any other party than Member-Generator, a new Application and Agreement must be completed by the person or persons taking over ownership or operational control of the existing Member-Generator's System. Cooperative shall be notified in writing no less than thirty (30) days before Member-Generator anticipates transferring ownership or operational control of Member-Generator's System. The person or persons taking over operational control of Member-Generator's System must receive written authorization from Cooperative before the existing Member-Generator System can remain interconnected with Cooperative's electrical system.

**15. Maintenance and Operation.** Member-Generator agrees to maintain their system and facilities in accordance with applicable manufacturer's recommended maintenance schedule and standard prudent engineering practices. Member-Generator covenants and agrees to operate their system, facilities and equipment so as to minimize the likelihood for a malfunction or other disturbance, damaging or otherwise affecting or impairing Cooperative's electrical system. Member-Generator shall comply with all applicable laws, regulations, zoning, building codes, safety rules and other environmental regulations or restrictions applicable to the design, installation, operation and maintenance of the Member-Generator's System.

Member-Generator must, at least once every year, conduct a test to confirm that Member-Generator's System automatically ceases to energize the output (interconnection equipment output voltage goes to zero) within two (2) seconds of being disconnected from Cooperative's electrical system. Disconnecting the Member-Generator's System from Cooperative's electrical system at the visible disconnect switch and measuring the time required for the unit to cease to energize the output shall satisfy this test. Member-Generator shall maintain a record of the results of these tests and, upon request by Cooperative, shall provide a copy of the test results to Cooperative. If Member-Generator is unable to provide a copy of the test results upon request, Cooperative shall notify Member-Generator by mail that Member-Generator has thirty (30) days from the date Member-Generator receives the request to provide Cooperative with the results of a test. If Member-Generator does not provide Cooperative with the test results within the thirty (30) day time period or if the test results provided to Cooperative show that Member-Generator's net metering unit is not functioning correctly, Cooperative may immediately disconnect Member-Generator's System from Cooperative's electrical system. If Member-Generator's equipment ever fails this test, Member-Generator shall immediately disconnect Member-Generator's System from Cooperative's electrical system. Member-Generator's System shall not be reconnected to Cooperative's electrical system by the Member-Generator until Member-Generator's System is repaired and operating in a normal and safe manner. Cooperative shall have the right to have a representative present and informed when any such tests are conducted. Cooperative does not warrant the testing procedures or results by the presence of its representative.

Member-Generator is responsible for protecting their equipment from transient high voltage spikes caused by lightning and/or transient low voltage conditions caused by faults or short circuits, and from any other causes or events. Therefore, Cooperative shall not be responsible for damage to Member-Generator's equipment allegedly caused by transient high voltage spikes caused by lightning and/or transient low voltage conditions caused by faults or short circuits or other causes or events.

Member-Generator agrees to notify Cooperative no less than thirty (30) days prior to modification of the

components or design of the Member-Generator's System that in any way may degrade or significantly alter the System's output characteristics. Member-Generator acknowledges that any such modifications will require submission of a new Application and Agreement to Cooperative.

**16. Point of Interconnection.** The interconnection point between the Member-Generator's System and Cooperative's electrical system shall be at the meter(s).

**17. Liability Insurance.** Member-Generator must select the corresponding check box that applies to the capacity of the generating system that is to be interconnected with the Cooperatives system:

Ten kilowatts or less: \_\_\_\_\_ Ten kilowatts or greater: \_\_\_\_\_

**For systems ten kilowatts or less:**

Cooperative suggests and recommends, but does not require, that Member-Generator have no less than \$100,000 of coverage so long as the Member-Generator's System is interconnected with Cooperative's electrical system so as to provide coverage for all risk of liability for personal injuries (including death) and damage to property arising out of or caused by the operation of Member-Generator's System.

Member-Generator may provide the recommended level of coverage by contracting with a provider of liability insurance licensed to conduct business in the State of Missouri. In such event, Member-Generator will upon request, furnish Cooperative with a certificate of insurance evidencing such coverage and naming Cooperative as an additional insured.

Member-Generator may self-insure against the risk of liability for personal injuries (including death) and damage to property arising out of or caused by the operation of Member-Generator's System. In such event, Member-Generator should have sufficient assets and property to cover the potential liability, ensuing losses, claims, legal actions, expenses including attorney fees and court costs incurred by Member-Generator for personal injuries (including death) and damage to property caused by operation of Member-Generator's System.

Please indicate (by checking box and initialing) whether Member-Generator will either:

- Obtain liability insurance. \_\_\_\_\_ (*initial*)
- Self-Insure. \_\_\_\_\_ (*initial*)

**For systems ten kilowatts or greater:**

Cooperative requires Member-Generator to have no less than \$100,000 of coverage so long as the Member-Generator's System is interconnected with Cooperative's electrical system so as to provide coverage for all risk of liability for personal injuries (including death) and damage to property arising out of or caused by the operation of Member-Generator's System

Member-Generator will provide the recommended level of coverage by contracting with a provider of liability insurance licensed to conduct business in the State of Missouri. In such event, Member-Generator will upon request, furnish Cooperative with a certificate of insurance evidencing such coverage and naming Cooperative as an additional insured.

**18. Member-Generator's Liability and Indemnification.** Member-Generator shall assume all liability for and shall indemnify and hold harmless Cooperative, and its members, trustees, directors, officers, managers, employees, agents, representatives, affiliates, successors and assigns from and against any claims, losses, costs and expenses of any kind or character to the extent they result from Member-Generator's negligence or other wrongful conduct in connection with the design, construction, installation, operation or maintenance of the Member-Generator's System. Such indemnity shall include, but is not limited to, financial responsibility for

monetary losses, reasonable costs and expenses of defending an action or claim, damages related to death or injury, damages to property, and damages for the disruption of business.

**F. Member-Generator Acknowledgement:**

**I have fully read, understand, and accept all provisions, terms and conditions set forth in this Application and Agreement. Furthermore, I agree not to operate the Member-Generator System in parallel with the Cooperative's electrical distribution system until this Application and Agreement has been approved in writing by Cooperative.**

Signed (Member-Generator): \_\_\_\_\_ Date: \_\_\_\_\_

*(Remainder of page intentionally left blank)*



**G. Pre-Construction Certification**

I, \_\_\_\_\_ (print name), the undersigned, a professional electrician or professional engineer (please circle one) do hereby certify that:

The Member-Generator’s proposed System hardware complies with all current applicable National Electrical Safety Code (NESC), National Electric Code (NEC), Institute of Electrical and Electronics Engineers (IEEE) and Underwriters Laboratories (UL) requirements for electrical equipment and their installation and shall comply with all successor standards. The proposed installation complies with all applicable state regulations, local electrical codes and all reasonable safety requirements of Cooperative. The proposed System has a lockable, visible, manual disconnect device, clearly marked "Distributed Generation Disconnect" accessible at all times to Cooperative personnel located at the metering point or other location mutually agreed to between Member-Generator and Cooperative. In addition to the one lockable, visible disconnect device, the System has a functioning mechanism that automatically disables the Member-Generator’s System and interrupts the flow of electricity back onto the Cooperative’s distribution system in the event that electrical service to the Member-Generator is interrupted, thereby preventing the possibility of back-feed.

The Member-Generator’s proposed System has functioning controls as specified by IEEE and UL standards, including, but not limited to control to prevent voltage flicker, DC injection, over voltage, undervoltage, overfrequency, underfrequency, and overcurrent, and to provide for System synchronization to Cooperative's electrical system. The proposed System does have an anti-islanding function that prevents the generator from continuing to supply power when Cooperative’s electric system is not energized or operating normally. If the proposed System is designed to provide uninterruptible power to critical loads, either through energy storage or back-up generation, the proposed System includes a parallel blocking scheme for this backup source that prevents any backflow of power to Cooperative’s electrical system when the electrical system is not energized or not operating normally.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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

(If Applicable) License # \_\_\_\_\_ Expiration Date: \_\_\_\_\_ Issued by: \_\_\_\_\_

**H. Post-Construction Certification**

I, \_\_\_\_\_ (print name), the undersigned, a professional electrician or professional engineer (please circle one) do hereby certify that the Member-Generator’s System referenced herein and now fully constructed satisfies all requirements noted in Section G, as set forth above.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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

(If Applicable) License # \_\_\_\_\_ Expiration Date: \_\_\_\_\_ Issued by: \_\_\_\_\_

**I. Approval of Application and Agreement.** Cooperative does not, by approval of this Application and Agreement, assume any responsibility or liability for damage to property or physical injury to persons due to malfunction of Member-Generator's System or Member-Generator's negligence.

**This Application and Agreement is approved by:**

Cooperative Representative Name and Title (print): \_\_\_\_\_

Signature of Cooperative Representative: \_\_\_\_\_

Date: \_\_\_\_\_

*(Remainder of page intentionally left blank)*