

**Exhibit A**

**Mayfield Electric & Water Systems**  
**INTERCONNECTION PROCEDURES**  
**FOR RENEWABLE DISTRIBUTED GENERATION**  
**UNDER THE TVA/MEWS**  
**GREEN POWER PROVIDERS PROGRAM**

**(For Generating Facilities of 50 kW and less)**

**Approved by the Board this 16<sup>th</sup> day of September, 2014**

# **1. GENERAL PROCEDURES & STANDARDS**

## **1.1. Scope**

These procedures describe the steps Interconnection customers (herein after called Customer) participating in the TVA Green Power Providers Program must follow in order for their renewable distributed generation equipment (DG equipment) to be evaluated and approved for interconnection to the Mayfield Electric & Water Systems (MEWS, herein after called Distributor) electrical system for parallel operation. The Green Power Providers Program is currently the only arrangement for net metering services from Distributor. Requirements for interconnection will be based on the size of the system and will be broken into the following categories:

Tier 1 – 10 kW or less;

Tier 2 – Greater than 10 kW and less than or equal to 50 kW.

No interconnected system may be installed on billboards, light poles, CATV/communication/internet boxes, recreational vehicles, or mobile facilities.

## **1.2. Application for Interconnection**

Each customer must submit a completed application along with a non-refundable application fee of \$350.00 for Tier 1 systems and \$500.00 for Tier 2 systems to Distributor prior to purchasing any DG equipment. If the system meets the criteria for Tier 1, complete the application in Attachment 1. If the system meets the criteria of Tier 2, complete the application in Attachment 2. Please provide the supporting documents identified with each application. (Note: A contract for additional study and system upgrade expenses may be necessary for some projects. See Figure 1 for Application and Interconnection Process.)

## **1.3. Requirement for Installers**

For participation in this program, solar photovoltaic and wind installations must be completed by installers who have completed and passed the North American Board of Certified Energy Practitioners (NABCEP) entry-level installer examination. Installers must submit either a copy of their Achievement Award or NABCEP Certification number to MEWS as part of the Application for Interconnection submittal. These requirements apply to upgrades and system changes as well as initial installations.

## 1.4. Application Processing (See Figure 1)

**1.4.1.** The Distributor will review the application for sufficiency and completeness and notify the customer that it has received all documents required or indicate how the application is deficient.

**1.4.2.** The Distributor will determine whether to evaluate the system using the criteria of Section 2, Fast Track Screening Process, or if an interconnection study is necessary. If an interconnection study is needed, or if the project does not pass the Fast Track Screening Process, the requirements outlined in Section 3, Study Process, will be followed. Otherwise, the Distributor will forward a copy of the Interconnection Agreement and the Participation Agreement for signature. When the agreements have been signed by the Distributor and TVA, the Distributor will notify the customer that they may proceed with purchase and installation of the project. The customer will also be notified of any additional requirements. **The Customer will not be allowed to proceed with interconnection and parallel operation until all provisions of these procedures have been met and Distributor has given written notification to proceed with parallel operation.**

**1.4.3.** The Customer must execute the TVA Participation Agreement and the MEWS Interconnection Agreement and the MEWS Interconnection/Distributed Generation Policy prior to MEWS beginning either the Study or Fast Track processes. MEWS will execute the TVA Participation Agreement and the MEWS Interconnection Agreement after successful completion of the Study or Track Processes. After MEWS executes those agreements, the TVA Participation Agreement will be forwarded to TVA for consideration of approval, along with any additional applicable submittals. Once the MEWS Interconnection Agreement and the TVA Participation Agreement are approved, the system must be approved by MEWS and become operational with the time limit requirements set for in the TVA Green Power Providers Program.

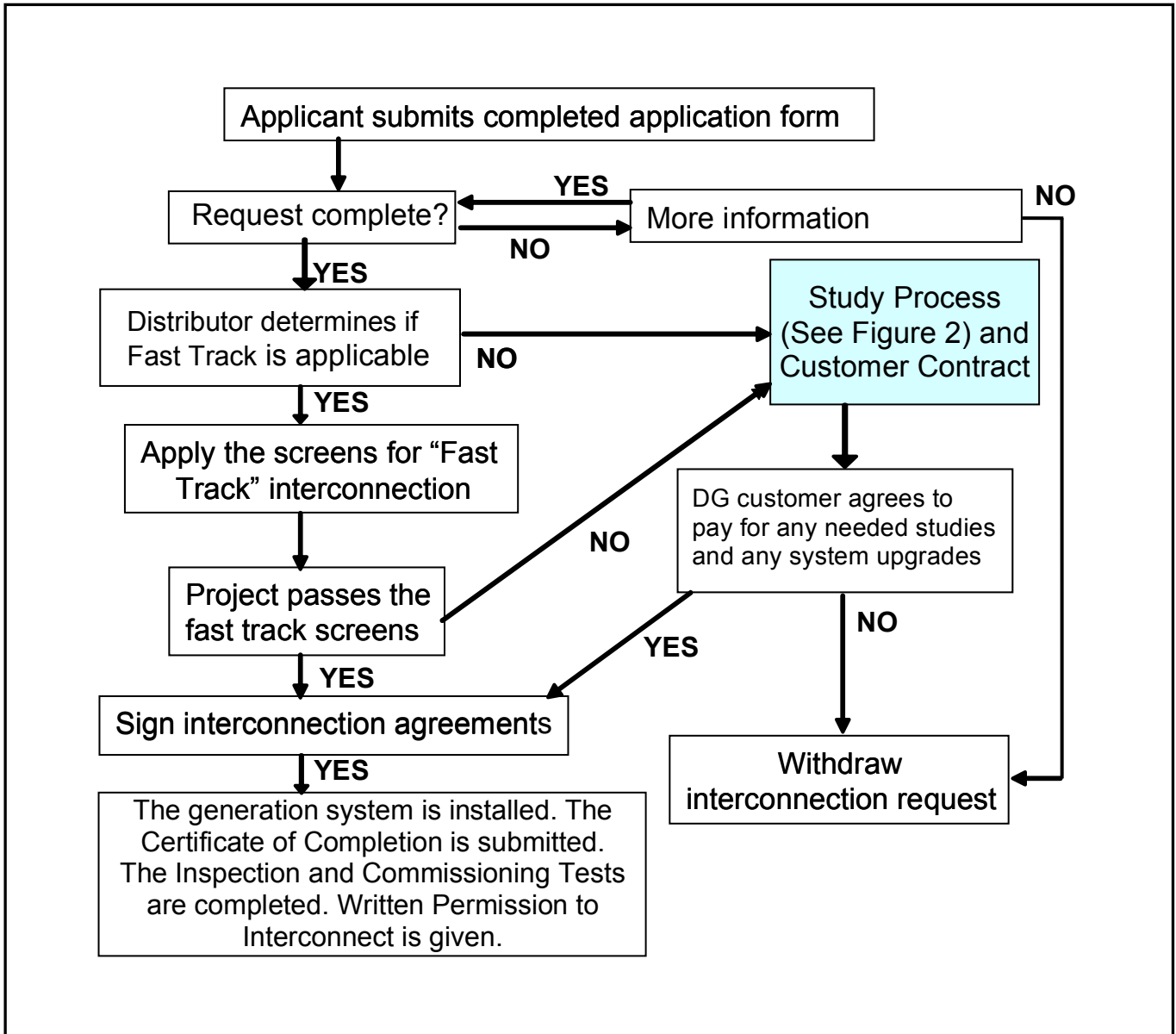
**1.4.4.** After installation, the Customer must return the Certificate of Completion (Attachment 3) to the Distributor. Prior to parallel operation, the Distributor shall inspect the DG equipment for compliance with the proposed design and may require a Commissioning Test in accordance with the procedures defined by the latest version of IEEE 1547.1. The Distributor will have the option of witnessing or participating in the commissioning test or may require documentation from the equipment owner describing which tests were performed and their results.

**1.4.5.** For some types of installations, especially non-inverter based systems, equipment certification to UL 1741 Standards may not be applicable or available. The Distributor may allow alternative testing based on IEEE 1547.1 with TVA concurrence. Any alternative testing must be approved beforehand, may be witnessed by MEWS, and will be paid for by the Participant.

**1.4.6.** If the inspection of the completed system and any required commissioning test are satisfactory, the Distributor will notify the Customer in writing that interconnection of the DG Equipment is authorized for parallel operation. If the system does not pass the inspection and/or Commissioning test, the Distributor has the right to lockout the facility. The Customer shall not under any circumstance take any action to operate the system in parallel until the problems have been corrected and a new inspection and Commissioning test are performed, or waived by the Distributor.

**1.4.7.** MEWS will consider requests for New Construction Participation from builders or new customers, as provided for in TVA's Green Power Providers Program. The request must be accompanied by a fully completed application for interconnection and a signed MEWS Interconnection Agreement and a signed TVA Participation Agreement, plus any application fees. The builder or new customer must agree to and accept responsibility for the system under these agreements as Owner and Participant. The New Construction Request will be forwarded to TVA for approval only after MEWS acceptance of the Interconnection Agreement and Participation Agreement. If approved by TVA, a Letter of Intent will be issued as provided for in the TVA Green Power Providers Program. If the builder or new customer later transfers ownership of the system to a new owner, a transfer of ownership request must be submitted as called for in the TVA Green Power Providers Program and the MEWS Interconnection Procedures, and the new Owner/Participant will need to agree to and sign the Participation and Interconnection Agreements. Systems must be operational within the time limits set in the TVA Green Power Providers New Construction Participation requirements. After being given permission to interconnect and become operational, all New Construction Participation systems of any capacity will be subject to site load requirements as defined in the TVA Green Power Providers Guideline and Section 4 of MEWS's Interconnection Procedures detailed below.

**Figure 1. Application and Interconnection Approval Process**



### **1.5. Standards and Certification Criteria**

The DG equipment must comply with the latest revision of the following standards and the customer must provide evidence of the certifications with the DG Equipment Application or with the Certificate of Completion:

**1.5.1.** IEEE1547 Standard for Interconnecting Distributed Resources with Electric Power Systems (including use of IEEE 1547.1 testing protocols to establish conformity)

**1.5.2.** IEEE1547.1 Standard Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems

**1.5.3.** UL 1741 Inverters, Converters, and Controllers for Use in Independent Power Systems

**1.5.4.** NFPA 70 National Electrical Code

**1.5.6.** The DG Equipment shall be considered certified for interconnected operation if the generation equipment and all related interconnection components have been tested and listed by an acceptable Nationally Recognized Testing Laboratory (NRTL certification by Department of Labor) for continuous interactive operation with an electric distribution system in compliance with the codes and standards outlined in 1.4.1 – 1.4.7 above. If NRTL certification is not available, Distributor may, upon request, with supportive information, approve alternative testing procedures at Customer's expense to assure IEEE 1547 performance.

**1.5.7.** The system must be certified for grid intertie operation by a licensed electrician as meeting all codes and inspections. For Tier 2 (over 10 KW capacity) the installation and protection designs must be provided by and stamped by a Registered Professional Engineer licensed in the State of Kentucky.

**1.5.8.** The customer must provide evidence that the installation has been inspected and approved by state or local code officials, as applicable, certified by a licensed electrician, and approved by a registered engineer, as applicable, prior to its operation in parallel. This information will be submitted with the Certification of Completion.

## **2. FAST TRACK SCREENING PROCESS**

### **2.1. Applicability**

MEWS will determine whether the Fast Track process is appropriate, or if the design of the system would require evaluation under the Study Process of Section 3.

## **2.2. Fast Track Review Screens**

After the Distributor has received a sufficient and complete Interconnection Application, the Distributor shall perform an initial review using the screens set forth below and shall notify the Interconnection Customer of the results.

### **2.2.1. Radial Distribution Circuit**

The proposed DG equipment must be for interconnection on a radial distribution circuit and not a network or loop feed circuit.

### **2.2.2. Generation On Circuit As A Percent of Annual Peak Load**

The aggregated generation, including the proposed DG Equipment, on the circuit shall not exceed 15 % of the expected peak load of the line section to which it is connected. The line section is that portion of a Distributor's electric circuit serving the customer that is bounded by an upstream automatic sectionalizing device or substation breaker and a downstream automatic sectionalizing device or the end of the distribution line. The line segment might be a feeder or a portion of a feeder that would be automatically disconnected from the main system supply, or might also be the portion of a feeder that would remain energized after a downstream section became de-energized. The total aggregate generation including the proposed generation shall not cause the potential for a portion of the Distributor's electrical system to overload at any time all or a portion of the total generation is not on line.

### **2.2.3. Maximum Fault Current**

The proposed DG Equipment, in aggregation with other generation on the distribution circuit, shall not contribute more than 10% to the distribution circuit's maximum fault current at the point on the high voltage (primary) level nearest the proposed point of interconnection. (If the potential still exists for the DG available fault current contribution to a fault on the Distributor's system to affect the operation of the Distributor's protection equipment, a study process would be required.)

### **2.2.4. Short Circuit Interrupting capability**

The proposed DG equipment, in aggregate with other generation on the distribution circuit, shall not cause any distribution protective devices and equipment (including, but not limited to, substation breakers, fuse cutouts, and line reclosers), or Customer equipment on the system to exceed 87.5 % of the short circuit interrupting capability; nor shall the interconnection be considered for a circuit that already exceeds 87.5 % of the short circuit interrupting capability.

### 2.2.5. Type of Interconnection

Using the table below, determine the type of transformer connection allowable to interconnect a DG with a primary distribution line through a transformer. This screen includes a review of the type of electrical service provided to the Customer, including line configuration and the transformer connection to limit the potential for creating over-voltages on the Distributor's electric power system due to a loss of ground during the operating time of any anti-islanding function.

Primary Distribution Line Type	Type of Interconnection to Primary Distribution Line	Result/Criteria
Three-phase, three wire	3-phase or single phase, phase-to-phase	Pass screen
<i>Three-phase, four wire</i>	<i>Effectively-grounded 3 phase or Single-phase, line-to-neutral</i>	<i>Pass screen</i>

### 2.2.6. Maximum Size for Single Phase

If the proposed DG Equipment is to be interconnected on single-phase shared secondary or service, the aggregate generation capacity on the shared secondary or service shall not exceed 15 KW. The generating capacity of any individual single phase DG Equipment shall not exceed 15 KW.

### 2.2.7. Load Balance

If the proposed DG Equipment is single-phase and is to be interconnected on a center tap neutral of a 240 volt service, its addition shall not create an imbalance between the two sides of the 240 volt service of more than 20 % of the nameplate rating of the service transformer. If the proposed DG equipment is single-phase and is to be interconnected to a three phase service secondary or service, its addition shall not cause the load on any of the individual phases to exceed twice the load on any of the other two phases.

### 2.2.8. Transient Stability Problems

The DG Equipment, in aggregate with other generation interconnected to the distribution side of a substation transformer feeding the circuit where the DG Equipment proposes to interconnect shall not exceed 10 MW in an area where there are known, or posted, transient stability limitations to generating units located in the general electrical vicinity (e.g., three or four distribution busses from the point of interconnection).



#### **2.2.9. No Upgrades Required**

No construction of facilities by the Distributor on its own system shall be required to accommodate the DG Equipment.

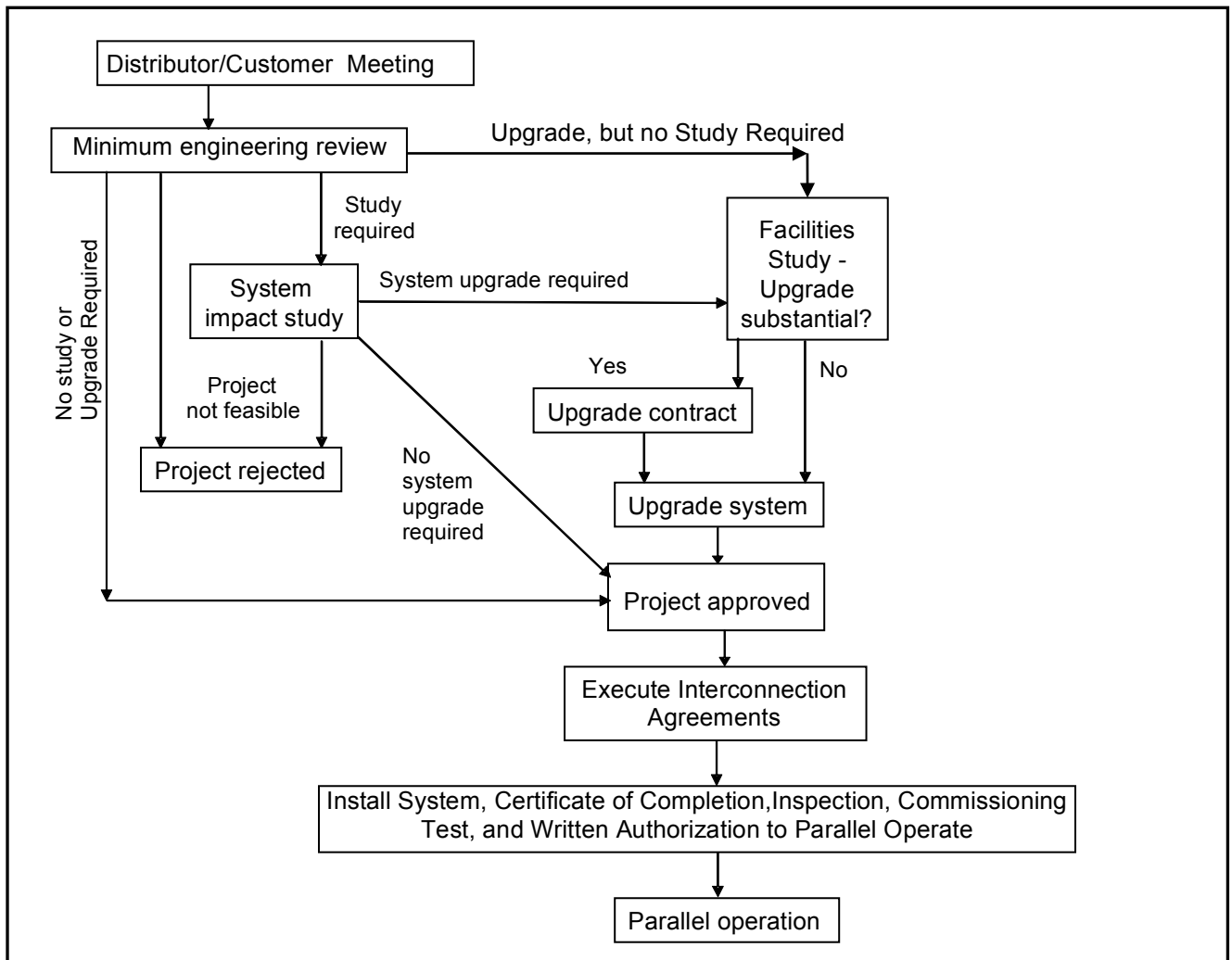
#### **2.3. Fast Track Screening Results**

If the proposed DG Equipment passes the screens, and the Distributor finds no other potential interconnection problems, the Customer's Application will be approved and the Distributor will provide the Customer an executable interconnection agreement. If the proposed project does not pass the screens, the Customer will be notified and offered the opportunity to attend a meeting where the processes outlined in section 3, Study Process, will be explained and a course of action determined.

### **3. STUDY PROCESS**

The study process (see Figure 2) consists of the minimum engineering review, the system impact study and the facilities study. At an initial meeting, the parties shall determine whether a minimum engineering review is sufficient, or the parties shall proceed directly to a system impact study, or a system upgrade study.

**Figure 2. The Study Process**



## **4. Minimum Engineering Review**

The “Minimum Engineering Review” is designed to identify any adverse system impacts that would result from interconnection of the DG Equipment. Examples of such negative impacts would include exceeding the short circuit capability rating of any breakers, violations of thermal overload or voltage limits, and a review of grounding requirements and electric system protection. Any communications systems limitations, including operations expense concerns, and exceptional metering situations would also be identified. If the Distributor determines that the Minimum Engineering Review will require substantial time or expense, the Distributor will ask the customer to reimburse the Distributor for the costs associated with this review.

### **4.1. System Impact and Facilities Studies**

The minimum engineering review may be sufficient to evaluate the impact of the DG on the electric system. If not, a full study process, the System Impact Study, may be required. A system impact study is more in depth than the minimal engineering review, and is designed to identify and detail the electric system impacts that would result if the proposed project were interconnected without project modifications or electric system modifications. A system impact study evaluates the impact of the proposed interconnection on the reliability of the electric system.

**4.1.1.** In instances where the system impact study shows potential for adverse impacts to the distribution system, the Distributor shall send the Customer a distribution system impact study agreement, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study, if such a study is required. Once the customer agrees to pay the cost of the study, the process continues.

Once the required system impact study is complete, a facilities study agreement if needed, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the facilities study, shall be sent to the customer. Design for any required Interconnection Facilities and/or Upgrades shall be performed under the facilities study agreement. Upon completion of the facilities study, and with the agreement of the Customer to pay for Interconnection Facilities and Upgrades identified in the facilities study, the Distributor shall provide the Customer an executable interconnection agreement.

## **5. ENERGY USAGE REQUIREMENTS**

For systems greater than 10 kW, the projected energy produced by the interconnected system may not exceed the historical or projected annual energy consumption at the site by the Customer. The projected energy production of the interconnected system will be calculated by the following equation:

$$\text{Projected kWh} = \text{Size of system (kW)} * 8,760 \text{ hours} * \text{Annual Capacity Factor (\%)}$$

The following Annual Capacity Factors will be used for the type of the system:

Solar PV-----15%  
Wind-----15%  
Low-Impact Hydropower—50%  
Biomass-----70%

The customer's previous 12 months energy consumption will be used as the annual consumption benchmark. Acceptable and reasonable annual energy consumption projections will be provided by customers with less than a full 12 months of consumption history. MEWS may disconnect or terminate participation of any system if the actual billing energy consumption is less than 40% of the energy consumption projections provided by the customer over any 6 month period.

**Attachment 1 -- Application for Interconnection of Distributed Generation  
Tier 1 (10 kW or less)**

This Application is considered complete when it provides all applicable and correct information required below.

**Customer**

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

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

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

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Electric Service Account Number \_\_\_\_\_

Owner of Building if different than customer \_\_\_\_\_

**Contact (if different from Customer)**

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

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

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

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

**Owner of System (if different than Customer)**

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

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

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

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

**Installer**

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

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

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

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

NABCEP #: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

**Electrical Contractor (if applicable)**

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

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

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

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

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

Contractor's License # \_\_\_\_\_ City/County/State \_\_\_\_\_

Approved by the Board this 16<sup>th</sup> day of September, 2014

**Generating Facility Information**

Location (if different from above): \_\_\_\_\_

Distributor: \_\_\_\_\_

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

Inverter Manufacturer: \_\_\_\_\_ Model \_\_\_\_\_

Nameplate Rating: \_\_\_\_\_ (kW) \_\_\_\_\_ (kVA) \_\_\_\_\_ (AC Volts) Single Phase \_\_\_\_ Three Phase \_\_\_\_\_

System Design Capacity: \_\_\_\_\_ (kW) \_\_\_\_\_ (kVA)

Energy Source: Solar  Wind  Hydro  Other (describe) \_\_\_\_\_

Attach support information to show testing and listing by a Nationally Recognized Laboratory for compliance with the codes and standards outlined in 1.4.1 – 1.4.4 for the proposed system.

Estimated Installation Date: \_\_\_\_\_ Estimated In-Service Date: \_\_\_\_\_

List components of the Small Generating Facility equipment package that are currently certified:

Equipment Type	Certifying Entity
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____

***ADDITIONAL INFORMATION – Single Line Diagram***

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, batteries, number and location of PV Panels, transfer switches, etc.) specifications, test reports, etc., and any other applicable drawings or documents necessary for the proper design of the interconnection. Also describe the address or grid coordinates of the facility.

***Permission to Interconnect***

**Customer must not operate their generating facility in parallel with Distributor’s system until they receive written authorization for parallel operation from Distributor.** Unauthorized parallel operation could result in injury to persons and /or damage to equipment and/or property for which the customer may be liable.

***Interconnection Customer Signature***

I hereby certify that, to the best of my knowledge, the information provided in this Application is true.

Signed: \_\_\_\_\_

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

**Attachment 2 -- Application for Interconnection of Distributed Generation  
Tier 2 (Greater than 10 kW and less than or equal to 50 kW)**

**This application should be completed and returned to the Distributor representative in order to begin processing the request.**

**PART 1**

**CUSTOMER INFORMATION**

Name: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
City: \_\_\_\_\_ County: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Phone Number: \_\_\_\_\_ Representative: \_\_\_\_\_  
Email Address: \_\_\_\_\_ Electric Service Account Number \_\_\_\_\_  
Fax Number: \_\_\_\_\_

**PROJECT DESIGN/ENGINEERING (as applicable)**

Company: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
City: \_\_\_\_\_ County: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Phone Number: \_\_\_\_\_ Representative: \_\_\_\_\_  
Email Address: \_\_\_\_\_ Fax Number: \_\_\_\_\_  
PE License \_\_\_\_\_ State \_\_\_\_\_

**INSTALLER**

Company: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
City: \_\_\_\_\_ County: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Phone Number: \_\_\_\_\_ Representative: \_\_\_\_\_  
Email Address: \_\_\_\_\_ Fax Number: \_\_\_\_\_  
NABCEP #: \_\_\_\_\_ State \_\_\_\_\_

**ELECTRICAL CONTRACTOR (as applicable)**

Company: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
City: \_\_\_\_\_ County: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Phone Number: \_\_\_\_\_ Representative: \_\_\_\_\_  
Email Address: \_\_\_\_\_ Fax Number: \_\_\_\_\_  
Contractor's License # \_\_\_\_\_ City/County/State \_\_\_\_\_

**TYPE OF GENERATOR (as applicable)**

Photovoltaic \_\_\_\_\_ Wind \_\_\_\_\_ Other \_\_\_\_\_

**ESTIMATED LOAD AND GENERATOR RATING INFORMATION**

The following information is necessary to help properly design the Distributor customer interconnection.

Total Site Load \_\_\_\_\_ (Highest kW Demand Last 12 Months)

Residential \_\_\_\_\_ Commercial \_\_\_\_\_ Industrial \_\_\_\_\_

System Rating \_\_\_\_\_ (kW) Annual Estimated Generation \_\_\_\_\_ (kWh)



## PART 2

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

### **SYNCHRONOUS GENERATOR DATA**

Identification per Single Line Drawing: \_\_\_\_\_  
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  
Sub-transient Reactance ( $X''_d$ ): \_\_\_\_\_ % on \_\_\_\_\_ KVA base  
Negative Sequence Reactance ( $X_2$ ): \_\_\_\_\_ % on \_\_\_\_\_ KVA base Zero  
Sequence Reactance ( $X_0$ ): \_\_\_\_\_ % on \_\_\_\_\_ KVA base  
Neutral Grounding Resistor Size (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 and ( $X'_d$ ): \_\_\_\_\_ 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)**

Identification per Single Line Diagram \_\_\_\_\_ 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, wind, etc.) \_\_\_\_\_

\_\_\_\_\_

**INVERTER DATA (if applicable)**

Manufacturer: \_\_\_\_\_ Model: \_\_\_\_\_

Rated Power Factor (%): \_\_\_\_\_ Rated Voltage (Volts): \_\_\_\_\_ Rated Amperes: \_\_\_\_\_

Inverter Type (ferroresonant, step, pulse-width modulation, etc): \_\_\_\_\_

Single or Three Phase \_\_\_\_\_ Type commutation: forced \_\_\_\_\_ line \_\_\_\_\_

Harmonic Distortion: Maximum Single Harmonic (%) \_\_\_\_\_

Maximum Total Harmonic (%) \_\_\_\_\_

**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) \_\_\_\_\_

Description of Control System \_\_\_\_\_

\_\_\_\_\_

.....

**ADDITIONAL INFORMATION – Single Line Diagram**

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, batteries, number and location of PV Panels, transfer switches, etc.) specifications, test reports, etc., and any other applicable drawings or documents necessary for the proper design of the interconnection. Also describe the address or grid coordinates of the facility.

**PERMISSION TO INTERCONNECT**

Customer must not operate their generating facility in parallel with Distributor’s system until they receive written authorization for parallel operation from Distributor. Unauthorized parallel operation could result in injury to persons and /or damage to equipment and/or property for which the customer may be liable.

**END OF PART 2**

---

**SIGN OFF AREA**

The customer agrees to provide the Distributor with any additional information required to complete the interconnection.

---

Applicant

Date

---

**DISTRIBUTOR CONTACT FOR APPLICATION SUBMISSION AND FOR MORE INFORMATION:**

Distributor contact: Brent Shultz  
Title: Customer Operations/Energy Services Manager  
Address: Mayfield Electric & Water Systems  
301 E Broadway  
Mayfield, KY 42066  
Phone: 270-247-4661 Email: [bshultz@mewsbb.com](mailto:bshultz@mewsbb.com)

### Attachment 3 - Certificate of Completion

**Interconnection Customer:** \_\_\_\_\_

Contact Person: \_\_\_\_\_

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

Location of the Small Generating Facility (if different from above):  
\_\_\_\_\_

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

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

**Electrician:**

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

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

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

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

License number: \_\_\_\_\_

**Inspection:**

The Small Generating Facility has been installed and inspected in compliance with the local building/electrical code of \_\_\_\_\_

Signed (Local electrical wiring inspector, or attach signed electrical inspection):  
\_\_\_\_\_

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

As a condition of interconnection, you are required to provide a copy of this form along with a copy of the signed and approved electrical permit/certificate to:

Name: Brent Shultz, Customer Operations/Energy Services Manager

Company: Mayfield Electric & Water Systems

Address: 301 East Broadway

City, State ZIP: Mayfield, KY 42066