

Mayfield Electric & Water Systems

**DISTRIBUTED GENERATION & INTERCONNECTION
POLICY**

**FOR RENEWABLE DISTRIBUTED GENERATION
INTERCONNECTIONS**

**Approved by the Board this 16th day of September,
2014**

Mayfield Electric & Water Systems
Distributed Generation & Interconnection Policy

Subject: Distributive Generation Interconnection

Date: August 29, 2014

Revised:

I. OBJECTIVE

The objective of the Distributed Generation & Interconnection Policy is to establish and state Mayfield Electric & Water Systems' (MEWS) policy for the interconnection of customer-owned generation systems to MEWS' distribution system.

II. POLICY

1. Any request to interconnect a generation system will be handled on a case-by-case basis and will require approval by both TVA and MEWS.
2. All interconnection arrangements between the Customer and MEWS will follow and comply with the guidelines set forth in TVA's Green Power Provider's program (GPP), Renewable Standard Offer (RSO) Program, Solar Solutions Initiative (SSI), and all other current and future TVA/MEWS distributed generation programs. All Interconnections must comply with MEWS's Distributed Generation & Interconnection Policy and the MEWS' Interconnection Agreement Exhibit A or Exhibit B. In addition to the guidelines associated with the aforementioned programs MEWS has the following requirements for all interconnections:
 - a. MEWS only allows supply side interconnections. This requires all installations to have two meters; one for energy supplied by MEWS to the Customer, and a second for the energy generated by the Customer.
 - b. Customers are allowed to interconnect only one generation system per site. Site is defined as the Customer's residential, commercial or industrial property on which the Customer's existing electrical service resides. This also includes all contiguous property.
 - c. Customers must have an established electrical service on the desired site, with at least twelve (12) months billing history, in order to be eligible for interconnection. Exceptions will be made for new construction of permanent structures such as residential or commercial facilities. The addition of facilities or load to an existing service does not constitute new

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- construction. Exceptions may be made for RSO and other TVA distributed generation Programs.
- d. MEWS requires all generation facilities to be constructed no more than two hundred (200) feet from the existing electrical service that the generation facility is associated with. This distance will be measured from the existing electrical meter to the new generation meter. The specific location of the generation facility must be agreed upon and approved by MEWS prior to construction.
 - e. MEWS reserves the right to require only three phase interconnections and may exercise this right when deemed necessary to protect the reliability and power quality of the MEWS distribution system for all MEWS customers.
 - f. MEWS reserves the right to prohibit micro inverters from being installed on distributed generation projects on the MEWS distribution system.
 - g. MEWS requires that all applicants utilize North American Board of Certified Energy Practitioners (NABCEP) certified installers and provide credentials of installer with the signed interconnection agreement.
3. MEWS shall be provided facility plans, electrical plans, and equipment specifications in advance for the review and possible approval. A Capacity Reservation Request (CRR) form must be submitted to MEWS and TVA. A formal Interconnection Agreement (IA) must be signed, presented to, and entered into with MEWS. A Participation Agreement (PA) must be signed and presented to MEWS and forwarded to TVA. If approval is given by all parties' involved installation may begin. Once installation is complete, MEWS shall guarantee the system complies with all requirements set forth in the MEWS Interconnection Agreement and MEWS Distributed Generation & Interconnection Policy will perform an onsite inspection and commissioning test.
 4. Interconnection and safety equipment associate with the generation facility must be listed under the appropriate Underwriters' Laboratory (UL) standards. For example, any equipment involved in a solar/photovoltaic installation shall be UL 1741 (Standard for Static Inverters, Converts, Controllers and Interconnection System Equipment for use with Distributive Energy Resources) listed. Equipment must also comply with the latest revision of IEEE 1547 (Standard for Interconnection Distributed Resources with Electric Power Systems).
 5. MEWS will not allow any interconnection that will cause the service quality of any MEWS customers to fall below industry standards. This includes any service issues involving voltage, flicker, frequency, waveform, power factor, etc.
 - a. The generation facility shall connect to the MEWS system without causing greater than 5% voltage fluctuation at the service entrance
 - b. The maximum allowable voltage flicker caused at the service entrance shall not exceed the requirements set forth by the latest revision of IEEE 1452 (Recommended Practice for Measurement and Limits of Voltage Fluctuations and Associated Light Flicker)

- c. The maximum allowable harmonic distortion of the current and/or voltage shall not exceed the requirements set forth by the latest revision of IEEE 519 (Recommended Practices and Requirements for Harmonic Control in Electrical Systems) as guiding standard.
6. It is the responsibility of MEWS to provide its customers with safe, reliable power. MEWS will not knowingly compromise the safety of its customers, employees, or the general public for any interconnection. It is the intent of MEWS to see that all appropriate standards, statutes, codes, rules, and regulations are applied to all interconnections. This determination shall be within the sole discretion of MEWS.
7. If the customer-owned generation facilities are to be modified, or and components are to be changed, the customer must provide MEWS written notification that fully describes the proposed modifications at least thirty (30) calendar days prior to making the modifications. It will be at the discretion of both MEWS and TVA whether these modifications will be allowed.
8. A permanent, weatherproof one-line electrical diagram of the facility must be provided at the point of service connection to MEWS. The names and current telephone numbers of at least two persons authorized to provide access to the facility and are able to make decisions regarding the facility interconnections and operation must be included.
9. The generation facility must be rated and tested to isolate all generation from the MEWS system in the event of a MEWS system disturbance and must perform that isolation as specified in the latest revision of IEEE 1547. MEWS may test this at any time after installation.
10. The generation facility must be rated and tested to prevent the facility's generation from closing into or re-energizing a de-energized MEWS power system or equipment. MEWS may test this at any time after installation.
11. In the event of a MEWS power disturbance or outage, the generation facility's protective devices may reconnect to the MEWS system only after a minimum or a five-minute delay.
12. A manual, lockable, visible-open, load break disconnect is required between the generation source and the MEWS system that is visibly marked "Customer Generation Disconnect". This disconnect will be accessible to and lockable by MEWS, and may be operated without notice.
13. MEWS retains the right to disconnect the customer's generation facility, without prior notice to the customer, pursuant to the following conditions:
 - i. Emergencies or maintenance requirements on MEWS' system
 - ii. Hazardous conditions existing on MEWS' systems due to the operation of the customer's generation or protective equipment
 - iii. Adverse electrical effects, such as power quality problems, on the electrical system or equipment of MEWS that are caused by the participating customer-owned generation facilities and that are

negatively impacting the service quality and reliability to other MEWS customers and the MEWS distribution system.

iv. Failure to comply with any or all part of this policy

Every effort will be made to coordinate with the customer and give proper notice when possible; however, disconnection may be made without notice. If disconnection is necessary, MEWS will open the required and accessible to MEWS employees, manual disconnect switch and install a lock. As soon as practically possible after the condition(s) necessitating the disconnection has been remedied, MEWS will unlock the disconnect switch and give authorization to the customer to reconnect the generation facility. Reconnection will be the responsibility of the customer.

III. COST

MEWS retains the right to charge the distributed generation applicant any and all cost directly or indirectly associated with the distributed generation project from the beginning and for the life of the installation. These cost include but are not limited to any system impact studies, facility or system upgrades, system maintenance, and time and material related to the distributed generation project. MEWS retains the right to issue the following fees:

- a. MEWS retains the right to require an in house engineering review for all distributed generation projects. The cost for an “in house” review shall not exceed \$500.00. If MEWS deems the “in house” review will not be sufficient, a more in depth “system impact study” will be required. Upon completion of the engineering review, if MEWS deems that a distributed generation project can be “fast tracked” as mentioned in Exhibit A, no further study will be required at that time.
- b. MEWS retains the right to require a system impact study for all distributed generation projects. MEWS retains the right to have sole discretion in the selection of the party to complete the system impact study. MEWS or contracted party will provide the distributed generation applicant a Statement of Work, good faith time estimate for the system impact study, and a good faith estimate of the cost of the system impact study and cost of necessary distribution system or facilities upgrades. The applicant will assume all cost associated with the system impact study and necessary distribution system or facilities upgrades.
- c. MEWS retains the right to at anytime assess one time, monthly, yearly, and/or cost based fees for allowing the distributed generation project to interconnect with the MEWS distribution system.
- d. MEWS retains the right to at anytime assess fees or exercise specially designed rates for allowing the interconnected distribution system to supply the distribution system with energy or use the MEWS system essentially as a battery backup.
- e. MEWS retains the right to charge a \$50.00 non-refundable fee to review and submit a Capacity Reservation Request to TVA.
- f. MEWS retains the right to charge an application fee to consider the interconnection request once MEWS and TVA have approved the CRR. The fee

shall be a tiered fee and MEWS reserves the right to revise the fee without notice. The fees are as follows:

- i. The fee shall be \$350.00 for an interconnection request up to 10kW (Tier 1).
 - ii. The fee shall be \$500.00 for an interconnection request greater than 10kW and up to 50 kW (Tier 2).
 - iii. The fee shall be \$1500.00 for an interconnection request greater than 50kW and up to 20MW under the RSO Program.
- g. MEWS will charge the current market cost for the second meter required under GPP in order to measure all power generated by the customers' distributed generation installation.
- h. MEWS retains the right to charge a second monthly customer charge, equivalent to the first monthly customer charge for the required second meter installed to measure the energy placed back on the MEWS distribution system. As follows for distributed generation installations:
- i. Residential \$20.81
 - ii. GSA 1 \$30.00
 - iii. GSA 2 \$60.00
 - iv. GSA 3 \$125.00
- i. MEWS retains the right to charge a monthly administrative fee.
- j. MEWS retains the right to charge for the required inspection and commissioning of the completed distributed generation system. MEWS reserves the right to contract a third party to complete the commissioning and/or inspection.

IV. RESPONSIBILITY

It shall be the responsibility of the General Superintendent and Electrical Operations Manager, and the Customer Operations/Energy Services Manager to assure compliance with the policy.

V. BOARD APPROVAL

The revised policy is adopted by the Mayfield Electric & Water Systems Electric Plant Board as of 16th day of September 2014, and shall become effective on this date.

Date

Approved: _____ Attested: _____

Board President