

TRI-COUNTY RURAL ELECTRIC COOPERATIVE, INC.

Policy Bulletin No. 3-17

SUBJECT: Alternate Energy Production

I. POLICY:

This policy, along with **Appendix A, Safety & Interconnection Requirements for Alternate Energy Production** and **Appendix B, Alternate Energy Systems Service Rate for Member Alternative Energy Production**, outlines the cooperative's policy on member interconnection of Alternate Energy Systems and Qualifying Facility as herein defined.

II. PROCEDURE:

It is the policy of **Tri-County Rural Electric Cooperative, Inc.** ("the Cooperative") to permit and encourage Alternative Energy System (AES)/Qualifying Facility (QF) Owners to operate cogeneration and small power production facilities and safely and reliably interconnect them with the Cooperative's electric distribution system. The term AES/QF shall be used throughout this document to define any form of generation that is not owned and operated by the Cooperative, and is interconnected to the Cooperative. Alternative Energy Systems are defined under Pennsylvania's Alternative Energy Portfolio Standards Act of 2004 (Act 213-2004). Qualifying Facilities are defined under the Public Utility Regulatory Policies Act of 1978 (PURPA). This policy will enable the AES/QF Owner to deliver total or excess energy into the Cooperative's distribution system. Compensation for such delivered energy shall be based on Allegheny Electric Cooperative's (Allegheny) avoided costs. The interconnection of an AES/QF and the Cooperative's distribution system is subject to the following conditions:

- A. If the AES/QF has nondiscriminatory access to one of the following: (1) independently administered, auction-based day ahead and real time energy markets and wholesale markets for long-term capacity sales, or (2) an open access transmission and interconnection service provided by a FERC-approved regional transmission organization and competitive wholesale markets that provide an opportunity to sell capacity and energy, then Allegheny's obligation to purchase the energy and capacity generated by a AES/QF may be waived by petitioning FERC for relief from the obligation to purchase energy and capacity on a service territory-wide basis by demonstrating that options (1) or (2) are available to the AES/QF.
- B. Prior to the time of interconnection, the AES/QF Owner must submit to the Cooperative complete and detailed electrical drawings, signed by a licensed Pennsylvania Professional Engineer of the AES/QF. Any new or proposed AES/QF must undergo an operational, safety, and technical screening and review to determine potential effects on the Cooperative's electric system. The AES/QF Owner shall provide the Cooperative with a Certificate of Completion when the unit is ready to be energized. Written approval must be received from the Cooperative prior to the physical interconnection of the AES/QF to the Cooperative's electric system. The **SAFETY & INTERCONNECTION REQUIREMENTS FOR ALTERNATE ENERGY PRODUCTION Document-Appendix A** provides additional details regarding the technical requirements evaluation of proposed generators.

The AES/QF Owner shall be responsible for payment of any incremental costs incurred by the Cooperative or Allegheny to interconnect with, synchronize, or accept output from the AES/QF. This would include, but not be limited to:

1. The costs associated with an engineering or evaluation study to accommodate the AES/QF interconnection.
2. Increase in service size (transformer capacity, service conductor size, meter base)
3. Change or addition of type of service; e.g.
 - a. Single-phase to three-phase.
 - b. Voltage change (120/240 to 240/480, etc.).
4. Line extension or system upgrade for an AES/QF.
 - a. Single-phase line extension to the facility
 - b. Three-phase extension line to the facility
 - c. Reconductoring a circuit to increase current carrying capability
 - d. Replacement/upgrade/installation of circuit protective equipment required to accommodate AES/QF

All AES/QF wiring must be in compliance with the National Electrical Code (NEC) and all other applicable codes and ordinances, and must be approved by an electrical inspection agency acceptable to the Cooperative. Any reference in this Policy to a code, standard, regulation, or guideline shall be construed to mean the then-current version of that document.

- C. The interconnection equipment must include an approved manual, visible load break safety switch lockable in the open position, and be accessible at all times to the Cooperative's personnel. The AES/QF Owner shall agree that the Cooperative may open the disconnect switch without prior notice for the following reasons:
1. Emergency conditions on the Cooperative's system.
 2. Inspection of the AES/QF by the Cooperative reveals a hazardous condition or lack of proper maintenance of AES/QF facilities.
 3. The AES/QF interferes with electrical service to Cooperative Members or with the Cooperative's electric system. Interference may include, but not be limited to: over or under voltage or frequency, harmonics, etc.
 4. Repair work on the Cooperative's system. Where time permits, the Cooperative will attempt to provide advance notice to the AES/QF Owner of imminent disconnection of the AES/QF and the reasons for same.
- D. The AES/QF must be operated so that no adverse effect(s) or power quality issue(s) occur to the Cooperative's electric system or to others connected thereto. If such adverse effect(s) occur, the AES/QF Owner must discontinue operation of the AES/QF and take corrective action(s) at the AES/QF Owner's sole expense, as deemed necessary by the Cooperative, and/or industry standards, including IEEE

Standard 1547-2003, IEEE 929-2000, and UL 1741-2001. Adverse effect(s) and power quality issues include, but are not limited to, voltage regulation, flicker, and/or harmonics.

- E. The AES/QF Owner must inform the Cooperative of any changes to the AES/QF and obtain the Cooperative's approval, in writing, before changes are made to the AES/QF in order to address the adverse effect(s) referred to in Paragraph D above. Prior to reconnecting, the AES/QF Owner must inform the Cooperative of their intent to reconnect.
- F. The AES/QF Owner will own, install, and maintain at his expense, all safety and interconnection equipment as specified by the Cooperative. Minimum required interconnection facilities are described in Appendix A hereto. (The Cooperative reserves the right to observe and witness the installation and testing of interconnection facilities pursuant to industry practices, codes, and IEEE Standard 1547-2003, IEEE 929-2000, and UL 1741-2001.)
- G. The Cooperative or Allegheny reserves the right to inspect the AES/QF and interconnection equipment at any time.
- H. Except for consumer-members with UL1741 certified inverter based systems, the AES/QF Owner must have a current liability insurance policy adequate in amount to cover all forms of liability that may arise from the operation of the AES/QF interconnected to the Cooperative's electric system and the policy should list the Cooperative and Allegheny as additional named insureds. A copy of this policy must be on file with the Cooperative. Lapse of the policy must be automatically reported to the Cooperative by the insurer, and shall result in the immediate disconnection of the AES/QF from the Cooperative's electrical system. In general, a minimum of one million dollars (\$1,000,000.00) in liability insurance is suggested but a more specific amount can be based on the Cooperative's review of the specific AES/QF. Residential consumer-members that are AES/QF Owners are encouraged to maintain a current liability insurance policy adequate in amount to cover all forms of liability that may arise from the interconnection of the AES/QF Interconnected to the Cooperative's electric system.
- I. The AES/QF Owner shall agree to hold the Cooperative and/or Allegheny harmless and indemnify the Cooperative and/or Allegheny in connection with any damages or injury affecting any party, resulting from the installation or the interconnection of the AES/QF to the Cooperative's or Allegheny's system, and the purchase of any output from the AES/QF, or operation of the AES/QF. The AES/QF Owner agrees to indemnify the Cooperative and/ or Allegheny for any money damages, liabilities, administrative and/or legal expenses incurred by the Cooperative and/ or Allegheny as a result of the failure of the AES/QF Owner's equipment to meet any requirement or condition set forth herein.
- J. The AES/QF Owner shall sell electric energy to Allegheny, pursuant to PURPA or ACT 213-2004 (as applicable) requirements, or upon written notification to Allegheny, to another entity. If another power purchasing entity is selected, a transmission or other charge may apply to wheel or transport the electrical power over the Cooperative's or Allegheny's electric facilities.

- K. The AES/QF Owner is responsible for executing a contract with Allegheny to receive compensation for energy and/or capacity delivered into the Cooperative's electric system. See Appendix B – AES Service Rate for member alternative energy production.

Any AES/QF interconnected to a residential account may only be designed to generate no more than 110% of the member's annual electric generation consumption as determined during the 12 months immediately preceding the year of interconnection and may not have a nameplate capacity greater than 50 kW.

If the account associated with the AES/QF is purchasing electric generation from an alternate electric generation supplier (EGS), the member will not receive credits or compensation from the Cooperative for energy produced by the AES/QF.

Administrative, application and/or service fees (see Schedule of Fees) may be charged to any account with an interconnected AES/QF to avoid inter-class or intra-class cost shifting as a result of the costs associated with administering an AES/QF.

- L. For AES/QF facilities of more than 200 kW, Allegheny will evaluate the proposed facility and negotiate potential purchase rates, administrative fees and other related costs to prevent intra system cost shifting. Allegheny's purchase of facility output will be based on: (1) Allegheny's avoided costs for contracts with terms of one year or less; or (2) negotiated pricing for contracts with longer terms.
- M. Allegheny may refuse to purchase output from a AES/QF from time to time so the Cooperative can (1) construct, install, maintain, repair, replace, remove, investigate or inspect any of the Cooperative's equipment or any part of the Cooperative's System; or (2) if the Cooperative and/or Allegheny determine(s) that curtailment, interruption, or reduction of deliveries of energy or energy and capacity is appropriate because of emergencies, forced outages, operating conditions on the Cooperative's system, or as otherwise required by industry standard electrical practices.
- N. Synchronous Generators will operate in the lagging VAR area of the capability curve at a power factor recommended by the Cooperative.
- O. The aggregated generation on a circuit including the AES/QF, connected to a radial distribution circuit, may not exceed 15% of the line section annual peak load. A line section is defined as that portion of the cooperatives distribution system connected to an AES/QF and bounded by automatic sectionalizing devices or the end of the distribution line.

III. RESPONSIBILITY:

President & CEO

SOURCE:

Adopted by Board Resolution on October 24, 2006 replacing Policy Bulletin 3-17, Cogeneration and Small Power Production.

Reviewed: 10/23/07, 12/20/11.

Revised: 11/20/09, 10/22/13, 08/25/14 (Appendix B only), 10/27/15.