

SCENIC RIVERS ENERGY COOPERATIVE

Policy S.12 Neutral to Earth Voltages

RESPONSIBILITY: CEO

The Cooperative provides electric energy and service to its members utilizing a multi-grounded current-carrying neutral. This neutral is solidly connected to all grounds throughout the system, both primary and secondary. The use of a multi-grounded current-carrying neutral greatly enhances the safe operation of the distribution system for all concerned.

This multi-grounded neutral carries current and will therefore have voltage on it. This voltage is a normal system condition and can be measured on all primary and secondary neutral conductors. The level of voltage will vary depending on the member's own energy utilization and the other loads on the line. The voltage actually measured on the member's secondary system will depend on the level of neutral current and on the condition of the member's wiring, grounding, and equipment.

This type of neutral connection has been, is, and will be the standard for all points of service. This type of connection provides maximum safety in case of lightning or other fault condition. Under normal operating conditions, this type of connection also keeps neutral voltages low enough so that there is no risk of injury to people using the system. However, the neutral voltages, whether arising on the Cooperative's or the member's system, cannot always be kept at the level generally believed necessary to assure that no operations will be affected. Dairy cattle and other livestock, for example, are more sensitive to low voltages.

Members should consider whether their service requirements are more stringent than those of other members. They are encouraged to construct their facilities in ways that will satisfy their special requirements. However, if the member suspects that the normal low voltages are affecting his or her operations, the member shall have the responsibility to inform the Cooperative.

If, after investigation by the Cooperative and the member's own electrician, the member deems the level of neutral voltage to be unsatisfactory for his or her applications, the member may elect to install available remedial devices on his or her secondary service to bring the standard of service within his or her requirements, or may request non-standard service from the Cooperative. In its discretion, after considering the safe operation of the system among other factors, the Cooperative may provide non-standard service. The cost of such service shall be borne by the member according to the Cooperative's policy on "Non-Standard Service: Neutral Isolation".

Information contained in this Policy is subject to update or modification by the Cooperative at any time and at the sole discretion of the Cooperative. Such information includes (but is not limited to) policies, procedures, rates, tariffs and applications. Some information may change as a result of external factors such as new legislation or regulations. Prior to making use of the information contained herein, please check with appropriate Cooperative staff.

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