

El Paso Electric Company

TECHNICAL REQUIREMENTS FOR INTERCONNECTION AND PARALLEL OPERATION OF QUALIFYING FACILITIES 20 KW OR LESS

General Requirements

1. Customer may operate 60 hertz, three-phase or single-phase generating equipment, 10 kW or less, in parallel with the utility system pursuant to an interconnection agreement, provided that the equipment meets or exceeds the requirements detailed in this document.
2. Where the application of the technical requirements set forth in this document are deemed inappropriate by one or both parties for a specific facility, the Customer and Utility may agree to different requirements, or a party may petition the Public Utility Commission of Texas (PUCT) for a good cause exception, after making every reasonable effort to resolve all issues between the parties.

Interconnection and Protection Requirements

1. Customer's generation and interconnection installation shall conform to all applicable national, state, local construction and safety codes and the requirements of the Utility.
2. Customer's generator shall be equipped with protective devices designed to disconnect the generator from, and prevent connection to, a de-energized circuit owned by the Utility.
3. Customer's generator shall be equipped with protective devices designed to prevent connection or parallel operation of the generating equipment with the Utility unless the utility system service voltage and frequency are within standard operating ranges.
4. The Customer shall be responsible for protecting its generation equipment from damage that may result from interruptions, faults, and transient voltage activity occurring on the Utility system.
5. The Customer shall furnish and install a visible disconnecting means (AC Disconnect) to allow physical and electrical separation of the Customer's generator from his main service panel. The disconnecting means shall be accessible to Utility personnel at all times and shall be capable of being locked in the open position. It shall be placed on the same wall and within 5 feet of distance of the revenue meter. (This may be adjusted based on special circumstance.)
6. If the current customer's house does not have a service main disconnect (main breaker), the customer shall upgrade service to include a main disconnect between the

revenue meter and the main panel. The disconnecting means shall be accessible to Utility personnel at all times.

7. The Customer shall post a permanent and weather proof one-line electrical diagram of the facility located at the point of service connection to the Utility.

Operating Requirements

1. Operation of Customer's generator shall be within standard parameters so as to not damage Utility or other customer's equipment nor affect the reliability of service.
2. The Customer shall operate its' generating equipment in such a manner that the voltage levels on the Utility system are in the same range as if the generating equipment were not connected to the Utility's system. The Customer shall provide an automatic method of disconnecting the generating equipment from the Utility system if a sustained voltage deviation in excess of +5% or -10% from nominal voltage persists for more than 30 seconds, or a deviation in excess of +10% or -30% from nominal voltage persists for more than ten cycles. The Customer may reconnect when the Utility system voltage and frequency have returned to normal range for a period of at least two minutes.
3. The Customer's equipment shall not cause excessive voltage flicker on the Utility system. This flicker shall not exceed 3.0% voltage dip, as measured at the point of interconnection.
4. The operating frequency of the Customer's generating equipment shall not deviate more than +0.5 Hertz (Hz) or -0.7 Hz from 60 Hz. The Customer shall automatically disconnect the generating equipment from the Utility system within 15 cycles if this frequency tolerance cannot be maintained. The Customer may reconnect when the Utility system voltage and frequency have returned to normal range for a period of at least two minutes.
5. In accordance with the Institute of Electrical and Electronics Engineers (IEEE) 519, the total harmonic distortion (THD) voltage shall not exceed 5.0% of the fundamental frequency voltage nor shall any individual harmonic voltage exceed 3.0% of the fundamental frequency voltage as measured at the point of interconnection.

Conditions for Interconnection PUCT Substantive Rule 25.212 describes the conditions of interconnection. Nothing contained herein shall operate to alter the conditions contained therein.