

BOARD OF LIGHT AND POWER GRAND HAVEN, MICHIGAN

SUBJECT: **Parallel Power Sources**

POLICY: **Parallel Power Sources**

PROCEDURE:

- J. The customer will be charged for all costs associated with any alteration of the BLP's equipment required for proper operation of the customer's generating equipment in parallel with the BLP's system. The customer will also be liable for costs of future changes due to safety or adverse effects on the BLP's and/or other customer's systems.
- K. If the customer does not meet all of the above requirements, the BLP may require termination of parallel operation. Failure to terminate parallel operation when required shall be cause for the BLP to interrupt electric service to the customer.
- L. The customer must sign a contract with the BLP before commencing parallel operation. In signing the contract the customer accepts liability for any damages or injuries caused by the customer's operation and agrees to indemnify and hold BLP harmless therefrom.

Adopted By The Board of Light & Power On August 23, 2001

Effective September 1, 2001

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PROCEDURE:

I. Parallel Power Sources

- A. In order to provide for the safety of the BLP's personnel and others, and to assure reliability of electric service to all customers, these requirements are established for operation of customer generation in parallel with utility distribution systems.
- B. These requirements include all customer systems under 100 kW. Systems 100 kW and over will be evaluated on an individual basis. All units over 10 kW must be three phase units unless specifically exempted.
- C. These requirements apply to both existing and proposed installations.
- D. The customer shall submit, before installation for BLP approval, detailed electrical diagrams and equipment nameplate data, including the interface device and control systems of the customer's power source.
- E. The customer's control and protection system must be acceptable to the BLP. The system shall provide for automatic separation from the BLP's distribution system in the event of a short circuit or open circuit on the BLP's distribution system. The control system shall also provide for automatic paralleling with the BLP's system when conditions are proper for parallel operation. Manual paralleling is not permitted without prior approval of the BLP. Over frequency, under frequency, over voltage and under voltage control may be required. The customer shall be liable for damage or injury if any part of the customer's protective scheme fails to function.
- F. A disconnecting device with a visible break suitable for use as a protective tag location shall be required so as to be accessible and in reasonable close proximity to the billing meter. This device shall accept a standard BLP padlock and shall be located on the outside of all buildings. In no case shall the customer tamper with or attempt to bypass the disconnect switch when the BLP has locked it in the open position.
- G. The completed installation must meet all local, state and national codes and is subject to inspection and test by the BLP and/or local code enforcement authorities before commencement of parallel operation, and periodically as required.
- H. The customer shall obtain approval from the BLP prior to making any revisions to the customer's generating unit, its control systems, or the interface between the two power systems after the initial installation.
- I. Should the parallel operation of the generating source cause interference or affect voltage, frequency or harmonic content of the BLP's system or other customer's service, the customer shall immediately discontinue parallel operation until the condition has been corrected.