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## **Exhibit B**

### **Interconnection Standards For Units Rated at 500 kW and Less**

In addition to the requirements of the QF Rules, the Qualifying Facility shall meet and maintain the following standards:

#### **General Requirements --**

1. The Qualifying Facility rated up to 100 kW must be constructed and capable of operating in accordance with the following IEEE standards:
  - a. IEEE Standard 1547 for Interconnecting Distributed Resources with Electric Power Systems.
  - b. IEEE Std 929-2000 IEEE Recommended Practice for Utility Interface of Photovoltaic (PV) Systems
  - c. IEEE Std 519-1992, IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems
  - d. IEEE / ANSI C84.1-2006 American National Standard for Electric Power Systems and Equipment - Voltage Ratings (60 Hz)
  - e. IEEE 1543, Recommended Practice for Measurement and Limits of Voltage Fluctuations and Associated Light Flicker on AC Power Systems
  - f. IEEE Std C37.108-1989 (R2002), IEEE Guide for the Protection of Network Transformers
  - g. IEEE C57.12.44-2000, IEEE Standard Requirements for Secondary Network Protectors
  - h. ANSI C84.1-1995 Electric Power Systems and Equipment – Voltage Ratings (60 Hertz)
  - i. IEEE Std 100-2000, IEEE Standard Dictionary of Electrical and Electronic Terms
  - j. NEMA MG 1-1998, Motors and Small Resources, Revision 3
  - k. NFPA 70 (2002), National Electrical Code
  - l. NEMA MG 1-2003 (Rev 2004), Motors and Generators, Revision 1
  
2. The Qualifying Facility rated from 101 kW to 500 kW must be constructed and capable of operating in accordance with the following IEEE standards:
  - a. Those items for units rated up to 100 kW listed above
  - b. ANSI/IEEE C37.91, Guide for Protective Relay Applications to Power Transformers

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- c. ANSI/IEEE C37.95, Guide for Protective Relaying of Utility-Customer Interconnections
  - d. ANSI/IEEE C37.97, Guide for Protective Relay Applications to Power System Busses
  - e. ANSI/IEEE C37.101, Guide for Generator Ground Protection
  - f. ANSI/IEEE C37.102, Guide for AC Generator Protection
  - g. ANSI/IEEE C37.106, Guide for Abnormal Frequency Protection for Power Generating Plants
3. The interconnection of the Qualifying Facility shall, at a minimum, maintain the existing level of reliability of the MidAmerican Electric System as compared to that which existed immediately prior to the interconnection.
  4. System flows on the MidAmerican Electric System as a result of the interconnection of the Qualifying Facility shall not overload, or in any manner adversely affect, the MidAmerican Electric System. If the Qualifying Facility supplies fault currents to the MidAmerican Electric System that are determined by MidAmerican to be excessive, the QF shall install, at its expense, adequate fault current limiting equipment.
  5. The QF shall provide to MidAmerican engineering quality specifications, plans, and construction documents relating to the Qualifying Facility that shall include:
    - a. A one-line diagram showing the generator, breakers, protective devices (with ANSI standard device function numbers), grounding, and metering all using appropriate ANSI standard symbols.
    - b. A diagram showing current and potential circuits for protective relays or equivalent protective equipment, and control schematic diagrams or logic diagrams for protective equipment.
  6. Industry standard Basic Insulation Level (BIL) ratings shall be used for all of Qualifying Facility electric system additions and electric system interface equipment.
  7. The QF shall utilize utility grade equipment for all protection and utility interface equipment.

**Protective Requirements --**

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1. The QF shall provide a ground current path from the Qualifying Facility that is reasonably acceptable to MidAmerican.
2. The QF shall provide and maintain protective and control equipment capable of automatically isolating and synchronizing the Qualifying Facility. In case of interruption, the equipment shall be capable of isolating or de-energizing the Qualifying Facility. Automatic isolation of the Qualifying Facility must occur in the event of:
  - a. A partial or total disruption of the MidAmerican normal source of supply. During such disruption the equipment shall prevent re-energizing MidAmerican electric facilities at the Interconnection Point from the Qualifying Facility. The Qualifying Facility shall be reconnected to the MidAmerican Electric System only after verification has been made that the MidAmerican Electric System is in a normal operating state.
  - b. Voltage deviations greater than  $\pm 5\%$  of nominal voltage provided by MidAmerican.
  - c. Frequency deviations greater than  $\pm 1\%$  of 60 Hz.
  - d. A partial or total failure on the Qualifying Facility side of the Interconnection Point.
  - e. An overload condition on the Qualifying Facility side of the Interconnection Point.
  - f. Out-of-synchronization generation by the Qualifying Facility.
3. Qualifying Facility generator controls shall be equipped with a line voltage relay or contactor that will prevent the Qualifying Facility from energizing any de-energized MidAmerican electric facilities and prevent the reconnection of the Qualifying Facility to the MidAmerican Electric System until MidAmerican energizes its electric facilities at the Interconnection Point.

### **Operating Requirements --**

1. The Qualifying Facility shall have a manually operated disconnecting device capable of being locked open by either party to provide a visible air opening that complies with the most current editions of the National Electric Code and the National Electrical Safety Code. This device shall be controlled by, and be accessible to, MidAmerican personnel at all times in accordance with this Contract and the QF Rules.

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2. The QF shall provide adequate power quality at the Interconnection Point including, but not limited to, the following:
  - a. Adequate voltage control to minimize voltage regulation. Line-to-line or line-to-neutral voltages shall be within  $\pm 5\%$  of nominal voltage provided by MidAmerican.
  - b. Adequate frequency control. Voltage and current sine-waves shall be within  $\pm 1\%$  of 60 Hz.
  - c. The harmonic content of the voltage wave forms shall comply with IEEE Standard 519-1992, IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems, Table 11.1, Voltage Distortion Limits. The current from the Qualifying Facility shall be in compliance with IEEE Standard 519-1992 Table 10.3 Current Distortion Limits for General Distribution Systems (120 volts through 69,000 V). Any degradation to the MidAmerican Electric System, or to the service of customers of MidAmerican resulting from such distortion shall be corrected at the expense of the QF. The Qualifying Facility shall be isolated by MidAmerican from the MidAmerican Electric System until corrections have been completed.
  - d. Control the electrical power output such that it will not exceed the capacity of the MidAmerican interconnection facilities. Any capacity improvements to the MidAmerican Electric System required to accommodate the output of the Qualifying Facility shall be at the expense of the QF.

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3. The Qualifying Facility shall maintain an adequate reactive power factor of not less than 0.95 lag. If the Qualifying Facility does not provide and maintain such reactive power, MidAmerican may do so and charge the cost to the QF. MidAmerican reserves the right to test power factor of the Qualifying Facility at any time. If starting or load changing on induction generators or inverters associated with the Qualifying Facility will have an adverse impact on the MidAmerican Electric System voltage, MidAmerican may require the installation of step-switched capacitors or other equipment, at the expense of the QF, to bring the voltage changes to within acceptable levels.
4. Appropriate metering shall be owned, operated and maintained by MidAmerican at the expense of the QF.
5. The QF shall maintain an operating log at the Qualifying Facility indicating changes in operating status (available or unavailable), maintenance outages, trip conditions, or other unusual conditions.
7. The QF shall maintain the Qualifying Facility in good condition and repair.
8. The QF shall discontinue parallel operation of the Qualifying Facility when requested by MidAmerican for the following purposes:
  - a. To facilitate maintenance, tests or repairs of the MidAmerican Electric System.
  - b. During emergencies on the MidAmerican Electric System .
  - c. When the Qualifying Facility generating equipment is interfering with customers on the MidAmerican Electric System.
  - d. When an inspection of the Qualifying Facility reveals a condition hazardous to the MidAmerican Electric System or a lack of scheduled maintenance records is found.