

Attachment 4 Certification Codes and Standards

ANSI C84.1-1995 (R2020) Electric Power Systems and Equipment – Voltage Ratings (60 Hertz)

IEEE Standard 1547-2018, Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems, latest version. Generation installations certified to be compliant with IEEE standard 1547 will generally be accepted as designed. CERTIFIED equipment will be tested and certified by NRTL (Nationally Recognized Testing Laboratory) to IEEE standard 1547-2018. All inverters to be used for connecting generation to Cooperative system are required to be certified to UL1741 (upon its amendment to incorporate adoption of IEEE standard 1547-2018) and IEEE standard 1547-2018. The term certified is understood to indicate a NRTL has tested the device to the appropriate standard, in this case UL1741 and IEEE standard 1547. Any inverter not meeting the NRTL certification will either not be allowed to connect to Cooperative system or will be required to install suitable external protection equipment to provide the same level of protection. Further, the inverter vendor must provide upon request copies of the certification of the inverter equipment from NRTL. Self-certification or certification by a third party that is not listed on the OSHA web site will not be accepted.

IEEE Std 100-2000, IEEE Standard Dictionary of Electrical and Electronic Terms

IEEE Std 519-1992 (R2014), IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems

IEEE Std C37.108-1989 (R2002), IEEE Guide for the Protection of Network Transformers

IEEE Std C37.90.1-1989 (R2012), IEEE Standard Surge Withstand Capability (SWC) Tests for Protective Relays and Relay Systems

IEEE Std C37.90.2-1995 (R2004), IEEE Standard Withstand Capability of Relay Systems to Radiated Electromagnetic Interference from Transceivers

IEEE Std C57.12.44-2000 (R2014), IEEE Standard Requirements for Secondary Network Protectors

IEEE Std C62.41.2-2002, IEEE Recommended Practice on Characterization of Surges in Low Voltage (1000V and Less) AC Power Circuits

IEEE Std C62.45-1992 (R2002), IEEE Recommended Practice on Surge Testing for Equipment Connected to Low-Voltage (1000V and Less) AC Power Circuits

NEMA MG 1-1998 (R2016) Motors and Small Resources

NEMA MG 1-2003 (R2017), Motors and Generators

NFPA 70 (2020), National Electrical Code

OSHA 1910.269 (d), Hazardous energy control (lockout/tagout) procedures

OSHA 1910.269 (m), Deenergizing lines and equipment for employee protection

UL 1741, Inverters, Converters, Controllers and Interconnection System Equipment for
Use With Distributed Energy Resources

These references include and incorporate by reference any updates or additions to the listed standards and these standards (or “families” of standards) shall apply to any future applications.