



Standard for Installing
**Residential
Generator Sets**

NEIS



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1. Scope

1.1 Equipment Included

This standard describes installation procedures for the following:

- a) Generator sets permanently installed at one-family dwellings to provide backup power. These are usually rated 120/240 volts, single-phase, three-wire. However, some large homes have three-phase electrical systems and use backup generators rated 120/208 volts, three-phase, four-wire.
- b) Generator sets fueled by gasoline, natural gas, or liquified petroleum (LP) gas.

1.2 Equipment Excluded

This standard does not cover installation procedures for the following:

- a) Generator sets supplying other types of buildings or facilities, including two-family and multifamily dwellings. These applications are covered by NECA/EGSA 404-2000, *Recommended Practice for Installing Generator Sets* (ANSI).
- b) Generators sets that use diesel fuel. These are also covered by NECA/EGSA 404.
- c) Marine or vehicle-mounted generators.
- d) Portable generators.

1.3 Related Items

- a) This standard covers installation of related items such as transfer switch panels, disconnect switches, control panels, and fuel supply systems.

- b) It also describes some electrical power distribution system design considerations related to the use of generator sets to supply loads in one-family dwellings.

1.4 Regulatory and Other Requirements

- a) All information in this publication is intended to conform to the National Electrical Code (ANSI/NFPA 70). Installers must always comply with the NEC, applicable state and local codes, manufacturers' instructions, and project specifications when installing generator sets.
- b) Only qualified persons familiar with the installation, construction, and operation of generator sets should perform the work described in this publication.
- c) Residential areas often have strict sound level requirements at the property line. Installers should check local codes for the maximum sound level permitted. Meeting the required sound level may require the residential generator to have an optional sound-suppressing enclosure and residential muffler.
- d) General requirements for installing electrical products and systems are described in NECA 1-2000, *Standard Practices for Good Workmanship in Electrical Contracting* (ANSI). Other *National Electrical Installation Standards* provide additional guidance for installing particular types of electrical products and systems. A complete list of *NEIS* is provided in Annex A.