



AFCI and GFCI Requirements

State-by-State Data

Arc-fault circuit interrupters (AFCIs) have been on the market since about the year 2000. They differ from ground-fault circuit interrupters (GFCIs), which were introduced into the NEC in the 1960s. Where GFCIs are designed to protect people from shock if parts of an electric appliance or tool become energized due to a ground fault, AFCIs are designed to protect branch circuit wiring from arcing faults.

NFPA 70, National Electrical Code (NEC), first required AFCIs in the 1999 edition. Subsequent editions added locations which were required to be covered.

1999 NEC: Branch circuits serving dwelling unit bedrooms needed to be covered by AFCIs as of January 1, 2002.

2008 NEC: The use of AFCIs expanded to family rooms, dining rooms, living rooms, parlors, libraries, dens, sunrooms, recreation rooms, closets, hallways and similar rooms or areas.

2014 NEC: Kitchens and laundry areas to the list of required areas.

The list has remained unchanged in the 2017 and 2020 editions of the NEC.

The maps and table on the following pages detail the status of AFCI and GFCI requirements in each state. The table includes hyperlinks to state building code agencies as well as relevant documents.

If you have questions or comments about the information in this table, please contact [Dan Buuck](#) at 202-266-8366.

AFCI Requirements in Effect Covered Circuits

| | | | |
|--|---|-----------------|---|
| Family Rooms, Dining Rooms, Living Rooms, Parlors, Libraries, Dens, Sunrooms, Recreation Rooms, Closets, Hallways and Similar Rooms or Areas AND Kitchen and Laundry Areas | Bedrooms AND Family Rooms, Dining Rooms, Living Rooms, Parlors, Libraries, Dens, Sunrooms, Recreation Rooms, Closets, Hallways and Similar Rooms or Areas | Bedrooms | No Statewide Adoption of AFCI Provisions |
|--|---|-----------------|---|

Total: 32

- California
- Colorado
- Connecticut
- Delaware
- Florida
- Georgia
- Hawaii
- Iowa
- Kentucky
- Louisiana
- Maine
- Maryland
- Massachusetts
- Minnesota
- Montana*
- Nebraska
- New Hampshire
- New Jersey
- New Mexico
- New York
- North Dakota
- Ohio

- Oklahoma
- Pennsylvania
- Rhode Island
- South Dakota
- Texas
- Vermont
- Washington
- West Virginia
- Wisconsin*
- Wyoming



Total: 6

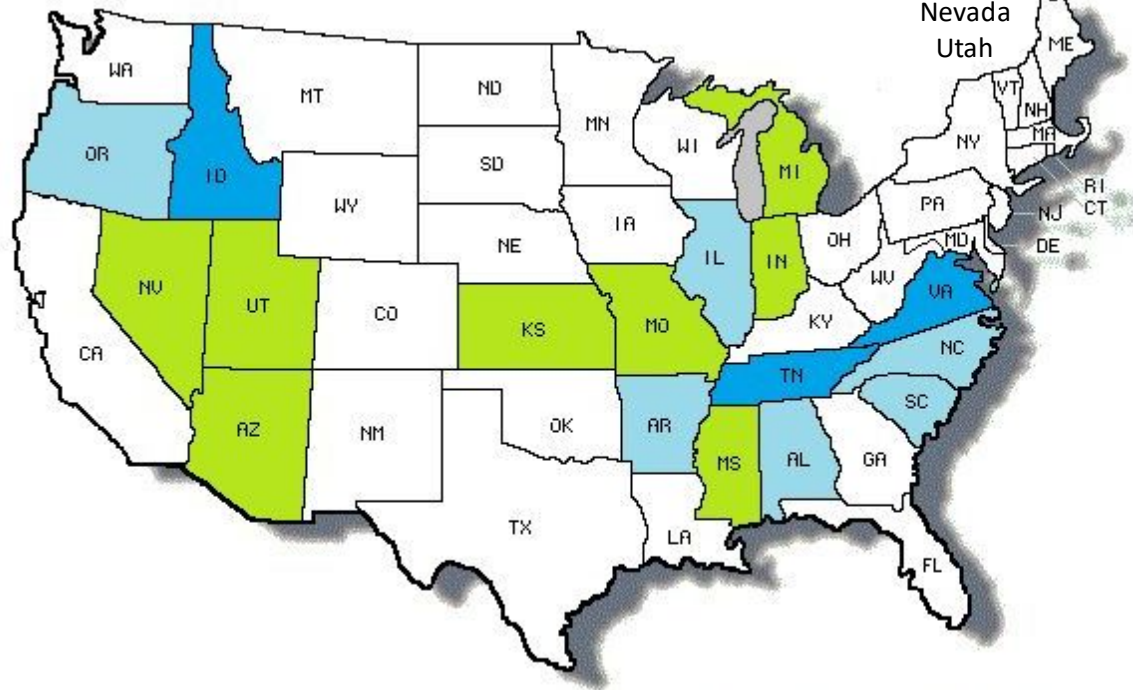
- Alabama
- Arkansas
- Illinois
- North Carolina
- Oregon
- South Carolina

Total: 3

- Idaho
- Tennessee
- Virginia

Total: 9

- Alaska
- Arizona
- Indiana
- Kansas
- Michigan
- Mississippi
- Missouri
- Nevada
- Utah



* Excludes kitchens

Amendments to AFCI and GFCI Provisions

| No Statewide Adoption of Residential Electrical Code | Amendments to Both <u>AFCI</u> And <u>GFCI</u> Provisions | Amendments to <u>AFCI</u> Provisions | Amendments to <u>GFCI</u> Provisions | No Amendments to AFCI or GFCI Provisions |
|--|---|--------------------------------------|--------------------------------------|--|
|--|---|--------------------------------------|--------------------------------------|--|

Total: 6

- Alaska
- Arizona
- Kansas
- Mississippi
- Missouri
- Nevada

Total: 11

- Connecticut
- Idaho
- Indiana
- Massachusetts
- New Jersey
- North Carolina
- Ohio
- Oregon
- South Dakota
- Vermont
- Wisconsin

Total: 12

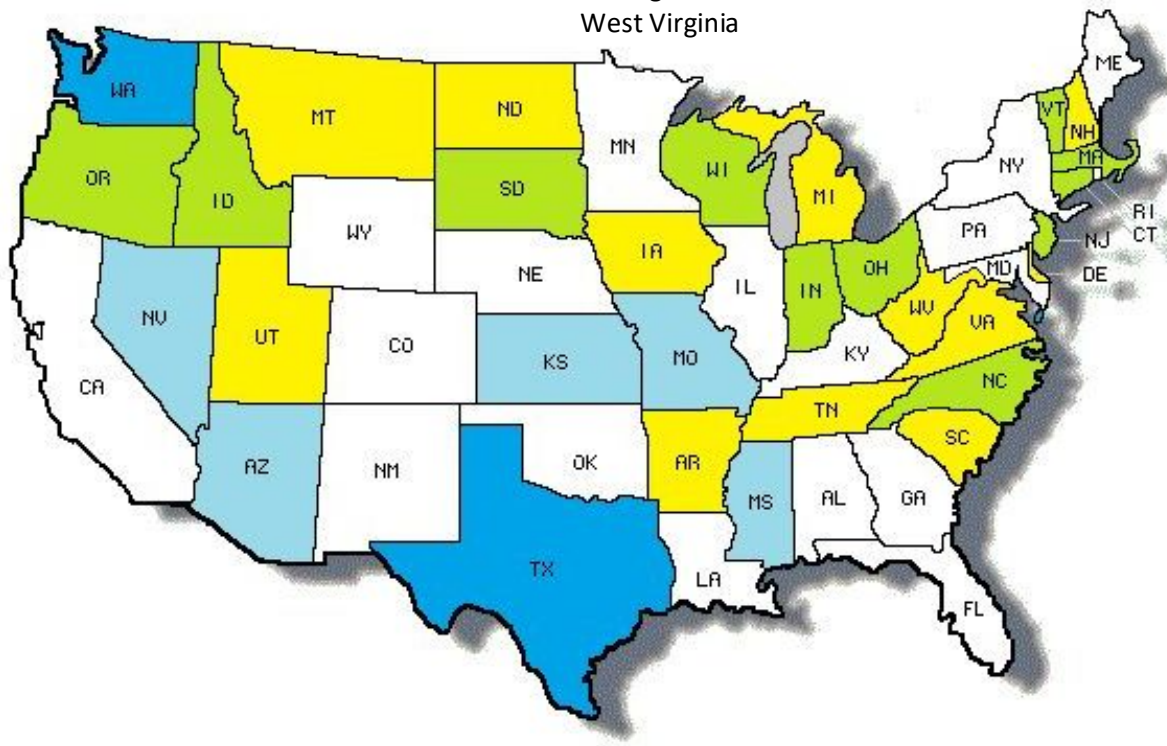
- Arkansas
- Delaware
- Iowa
- Michigan
- Montana
- New Hampshire
- North Dakota
- South Carolina
- Tennessee
- Utah
- Virginia
- West Virginia

Total: 3

- District of Columbia
- Texas
- Washington

Total: 19

- Alabama
- California
- Colorado
- Florida
- Georgia
- Hawaii
- Illinois
- Kentucky
- Louisiana
- Maine
- Maryland
- Minnesota
- Nebraska
- New Mexico
- New York
- Oklahoma
- Pennsylvania
- Rhode Island
- Wyoming



| State | Residential Electrical Code Adopted and Effective Date | Technical Amendments (AFCI/GFCI/X) | State Agency | Documents | Notes |
|-------------------|---|--|--|------------------------------|--|
| | IRC International Residential Code—Electrical Section NEC National Electrical Code | X Amendments do not include AFCI or GFCI provisions. | | | |
| Alabama | 2008 NEC Effective 6/4/2017 | | Div. of Construction Management Dept. of Economic and Community Affairs | Adoption | The 2015 IRC was adopted, but the 2008 NEC is deemed equivalent to the electrical requirements of the IRC. The 2014 NEC only applies to state projects (effective 7/1/2016). |
| Alaska | No Statewide Adoption | | Div. of Labor Standards and Safety | Adoption | "Public structures" and any place of employment are required to be completed under the 2017 NEC (effective 5/9/2018). "Public structures" are buildings such as hotels, resident housing with more than one rental unit, restaurants, taverns, lodging houses, children's homes, auditoriums, town halls, or any structure designed or used for public assembly, whether publicly or privately financed. |
| Arizona | No Statewide Adoption | | | | |
| Arkansas | 2017 NEC Effective 1/1/2018 | AFCI | Department of Labor | Amendments | The 2017 NEC was adopted with an amendment which removes the requirement for arc-fault circuit-interrupters (AFCIs) in kitchens and laundry rooms. |
| California | 2017 NEC Effective 1/1/2020 | | Building Standards Commission | Adopted Code | The 2019 California Electrical Code, or Part 3 of the California Building Standards Code, incorporates the 2017 edition of the NEC. Local jurisdictions may adopt more restrictive requirements if they are warranted by local conditions. |

| State | Residential Electrical Code Adopted and Effective Date | Technical Amendments (AFCI/GFCI/X) | State Agency | Documents | Notes |
|----------------------|--|------------------------------------|--|--|--|
| Colorado | 2020 NEC Effective 8/1/2020 | | Electrical Board | Adoption | |
| Connecticut | 2015 IRC Effective 10/1/2018 | AFCI/GFCI | Office of the State Building Inspector | Amendments | An exception was added for AFCI protection. It is not required for replacement receptacles. The GFCI amendment is editorial and does not affect the requirements of the code. |
| Delaware | 2014 NEC Effective 3/11/2016 | AFCI | Fire Prevention Commission | Amendments | The 2014 NEC was adopted in its entirety except for two amendments requiring smoke alarms to be installed on dedicated branch circuits without AFCI protection. |
| District of Columbia | 2014 NEC Effective 5/29/2020 | GFCI | Dept. of Consumer and Regulatory Affairs | Amendments | The 2014 NEC was adopted with an amendment requiring the 125-volt receptacle installed within 25 feet of the electrical service equipment in to be a 20-amp receptacle and GFCI-protected. This receptacle is not required in one- and two-family dwellings. |
| Florida | 2017 NEC Effective 12/31/2020 | | Building Commission | IRC Amendments | Electrical systems, equipment and components are required to comply with the 2017 edition of the NEC. |
| Georgia | 2020 NEC Effective 1/1/2020 | | Dept. of Community Affairs | Adoption IRC Amendments | The 2020 edition of the NEC was adopted without amendments. |
| Hawaii | 2017 NEC Effective 8/21/2018 | | Building Code Council | Adoption | |
| Idaho | 2017 NEC Effective 7/1/2017 | AFCI/GFCI | Division of Building Safety | Amendments | AFCI protection requirements were amended to include only bedrooms. GFCI protection was removed from laundry areas and outlets supplying dishwashers. GFCI protection is still required within 6 feet of sinks. |

| State | Residential Electrical Code Adopted and Effective Date | Technical Amendments (AFCI/GFCI/X) | State Agency | Documents | Notes |
|------------------|--|------------------------------------|--|----------------------------|---|
| Illinois | 2008 NEC Effective 7/1/2011 | | Capital Development Board | Adoption | Building codes, including the electrical code, may be adopted at the local level. All new construction must comply with the 2008 or later edition of the NEC for those jurisdictions which have not adopted a code locally. |
| Indiana | 2018 IRC Effective 12/26/2019 | AFCI/GFCI | Fire Prevention & Building Safety Commission | Amendments | AFCI protection requirements have been completely removed from the IRC, as have the provisions for tamper-resistant receptacles. GFCI protection was modified for spas, hot tubs, and hydromassage tubs. |
| Iowa | 2017 NEC Effective 1/1/2018 | AFCI | Electrical Examining Board | Amendments | The AFCI provisions for extending or modifying a branch circuit were deleted, but those for new construction were not amended. |
| Kansas | No Statewide Adoption | | Office of the State Fire Marshal | | 2008 NEC was adopted by the state for state-owned buildings only. |
| Kentucky | 2017 NEC Effective 1/1/2019 | | Dept. of Housing, Buildings and Construction | Adoption | |
| Louisiana | 2014 NEC Effective 2/1/2018 | | State Uniform Construction Code Council | Adoption | |
| Maine | 2014 NEC Effective 7/1/2014 | X | Electricians' Examining Board | Amendments | The 2014 NEC was adopted with eight technical amendments which do not affect AFCI or GFCI requirements. |
| Maryland | 2017 NEC Effective 3/25/2019 | | Building Codes Administration | Adoption | For the applicable electrical requirements, refer to the local electrical code and the National Electrical Code as adopted and enforced by the State Fire Marshal, authorized fire officials, or building officials. |

| State | Residential Electrical Code Adopted and Effective Date | Technical Amendments (AFCI/GFCI/X) | State Agency | Documents | Notes |
|---------------|--|------------------------------------|---|----------------------------|--|
| Massachusetts | 2020 NEC Effective 1/1/2020 | AFCI/GFCI | Dept. of Fire Services | Amendments | The GFCI provisions were amended. When determining the distance from receptacles, the shortest path may not be measured through a door opening or doorway. GFCI protection is specifically called out for receptacles within a cabinet supporting a sink. GFCI protection was removed for outdoor, non-receptacle outlets. AFCI protection requirements were expanded to include all circuits in dwelling units. |
| Michigan | 2015 IRC Effective 2/8/2016 | AFCI | LARA Building Division | Amendments | AFCI protection requirements have been completely removed from the IRC. |
| Minnesota | 2020 NEC Effective 11/17/2020 | | Board of Electricity | Adoption | |
| Mississippi | No Statewide Adoption | | State Fire Marshal | Adoption | Local jurisdictions shall adopt one of the last three editions of the IRC. |
| Missouri | No Statewide Adoption | | Division of Fire Safety | | The NEC was adopted by the state for state-owned buildings only. |
| Montana | 2017 NEC Effective 12/7/2019 | AFCI | State Electrical Board | Adoption | The requirements for AFCI protection was deleted for kitchens. Cities and counties are not permitted to amend the NEC as adopted by the State. |
| Nebraska | 2017 NEC Effective 8/24/2017 | | State Electrical Division | Adoption | |
| Nevada | No Statewide Adoption | | State Fire Marshal | | The NEC was adopted by the state for state-owned buildings only. |

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|----------------------|--|------------------------------------|---|--|---|
| New Hampshire | 2017 NEC Effective 9/15/2019 | AFCI | State Building Code Review Board | Amendments | AFCI protection requirements were amended to allow the replacement of an AFCI device after repeated tripping with one without AFCI protection for as long as it takes the manufacturer to resolve the matter. This exception only applies where the branch circuit is not causing the AFCI device to trip. Affected receptacles need to be labelled and notice given to the property owner and occupants. |
| New Jersey | 2017 NEC Effective 9/3/2019 | AFCI/GFCI | Dept. of Community Affairs | Amendments | The requirement for AFCI protection on branch circuit extensions or modifications, was deleted. Replaced receptacles also do not need to provide AFCI protection. The NEC was adopted with two exceptions for GFCI protection: receptacles in garages that are not readily accessible, and receptacles dedicated for a specific appliance that is not easily moved. |
| New Mexico | 2017 NEC Effective 2/1/2018 | X | Construction Industries Division | Adoption | The amendments do not include any changes to the AFCI and GFCI protection requirements. |
| New York | 2018 IRC Effective 5/12/2020 | X | Code Enforcement & Administration | Adoption Adopted Code | The 2020 RCNYS, which is based on the 2018 IRC, was adopted without any changes to the AFCI and GFCI protection requirements. Jurisdictions may adopt more restrictive local standards. |

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| North Carolina | 2017 NEC Effective 6/12/2018 | AFCI/GFCI | Office of State Fire Marshal | Amendments Additional Amendments | The 2017 NEC was amended to remove AFCI requirements for kitchens and laundry areas. AFCI protection on branch circuit extensions is not required where existing conductors are not extended more than 50 ft. AFCI protection is not required for replacement receptacles (effective 1/1/2021). A single outdoor outlet receptacle specifically for use by a sewage lift pump was exempted from GFCI protection. The requirement for GFCI protection on kitchen dishwasher branch circuits was deleted. GFCI protection is not required in the garage for a single receptacle or a duplex receptacle for two appliances, which are not easily moved and located within dedicated space. |
| North Dakota | 2017 NEC Effective 7/1/2017 | AFCI | State Electrical Board | Amendments | The NEC was amended to exempt AFCI protection for refrigerators on a dedicated circuit and receptacles supplying sewer and sump pumps. GFCI protection was added for receptacles, other than single receptacles, serving garage door openers. The 2020 edition of the NEC goes into effect on 1/1/21. |
| Ohio | 2017 NEC Effective 7/1/2019 | AFCI/GFCI | Board of Building Standards | Amendments | AFCI protection was exempted for branch circuits supplying receptacles serving only kitchen countertops. GFCI protection was exempted for a single outlet receptacle serving a garage door opener and for a single receptacle serving a sump pump when a GFCI protected outlet is within 6 feet of the pump. |
| Oklahoma | 2015 IRC Effective 11/2/2015 | X | Uniform Building Code Commission | Amendments | The electrical amendments do not include any changes to the AFCI and GFCI protection requirements. |

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|----------------|--|------------------------------------|---|--|---|
| Oregon | 2017 NEC Effective 10/1/2017 | AFCI/GFCI | Building Codes Division | Amendments Adopted Code | AFCI protection was added to alcoves, but was removed for hallways, kitchens and laundry areas and GFCI-protected receptacles in dining rooms. AFCI protection was also exempted for optional, dedicated outlets supplying equipment known to cause unwanted tripping, or on branch circuits supplying receptacles for appliances which are not easily moved or fastened in place. AFCI protection was also not required for extensions or modifications of existing circuits or when replacing or upgrading a service or panelboard. Exceptions for GFCI protection include single receptacles for appliances that are not easily moved or fastened in place, receptacles serving dishwashers and single receptacles for sewage or sump pumps. Such receptacles need to be labeled “not GFCI protected.” |
| Pennsylvania | 2015 IRC Effective 10/1/2018 | X | UCC Review and Advisory Council | Adoption | The 2015 IRC was adopted with several technical amendments which did not affect AFCI or GFCI protection. |
| Rhode Island | 2017 NEC Effective 8/1/2019 | X | Building Code Commission | Amendments | The 2017 NEC was adopted with several technical amendments which did not affect AFCI or GFCI protection. |
| South Carolina | 2018 IRC Effective 1/1/2020 | AFCI | Building Code Council | Adoption Amendments | The AFCI provisions were amended to exclude kitchens and laundry rooms. |
| South Dakota | 2020 NEC Effective 7/1/2020 | AFCI/GFCI | Electrical Commission | Amendments | The 2020 NEC was adopted with amendments. GFCI protection for receptacles does not include 250-volt receptacles. The requirement for GFCI protection for outdoor outlets was deleted. The AHJ may determine that AFCI and GFCI protection is not required for life support or similar equipment. |

| State | Residential Electrical Code Adopted and Effective Date | Technical Amendments (AFCI/GFCI/X) | State Agency | Documents | Notes |
|------------|--|------------------------------------|--|---|---|
| Tennessee | 2017 NEC Effective 3/19/2018 | AFCI | State Fire Marshal | Amendments | AFCI protection requirements were amended to include only bedrooms. |
| Texas | 2020 NEC Effective 11/1/2020 | GFCI | Dept. of Licensing and Regulation | Adoption | The Texas Occupations Code § 1305.201 provides municipalities the authority to make local amendments to the NEC. |
| Utah | 2015 IRC Effective 7/1/2019 | AFCI | Uniform Building Code Commission | Adoption Amendments | AFCI protection requirements have been deleted for new construction. AFCI protection is also not required for extensions of existing circuits or an added outlet which does not significantly increase the existing electrical load—not including changes which are part of a remodel or addition. Codes are adopted by the Utah legislature, with the Building Code Commission making recommendations. |
| Vermont | 2017 NEC Effective 10/1/2017 | AFCI/GFCI | Building Code and Safety Services | Amendments | AFCI protection is not required where a branch circuit is extended solely for the purpose to hardwire single station smoke and or CO alarms in an existing dwelling. Amendments limit GFCI protection in laundry areas to those receptacles installed within 6 feet of a washing machine or sink. |
| Virginia | 2015 IRC Effective 9/4/2018 | AFCI | Dept. of Housing and Community Development | Adopted Code | The 2015 IRC was amended to limit the AFCI protection requirement to bedrooms. |
| Washington | 2020 NEC Effective 10/29/2020 | GFCI | Dept. of Labor & Industries | Amendments Significant Changes | GFCI protection is not required for a fire alarm system in a garage or unfinished basement. The receptacle and cover plate must be red and labeled. All fixed electrical equipment with exposed grounded metal parts within an enclosed shower area or within five feet of a bathtub must have GFCI protection. Cities might have separate electrical ordinances but must be at least as stringent as the State. |

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|----------------------|--|------------------------------------|--|----------------------------|---|
| West Virginia | 2017 NEC Effective 8/1/2020 | AFCI | Office of the State Fire Marshal | Amendments | AFCI protection is not required for renovations which do not add square footage, except for in bedrooms. AFCI protection is not required for additions where no electrical service is installed. |
| Wisconsin | 2017 NEC Effective 1/1/2020 | AFCI/GFCI | Dept. of Safety and Professional Services | Amendments | AFCI protection is not required on branch circuits serving kitchens or branch circuit extensions or modifications. GFCI protection is not required due to a receptacle being within 6 feet of a kitchen sink, bathtub or shower stall. GFCI protection is also not required for receptacles in laundry areas or for a single receptacle serving a sump, sewage or condensate pump when a GFCI receptacle is within 3 feet of the non-GFCI receptacle. |
| Wyoming | 2020 NEC Effective 7/1/2020 | | Dept. of Fire Prevention and Electrical Safety | | Local jurisdictions may amend the electrical code. |