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State Adoptions of the National Electrical Code

The National Electrical Code (NEC) is developed and published on a three-year cycle. NAHB has developed adoption kits for each edition that include highlights of changes from the previous model code edition, associated cost increases, and a list of suggested amendments.

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

June 15, 2023

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AFCI and GFCI Requirements

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, the National Electrical Code (NEC), first required AFCIs in the 1999 edition. Subsequent editions expanded locations where AFCIs were required to be installed.

1999 NEC: Branch circuits serving dwelling unit bedrooms needed to include 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 were added to the list of required areas.

The list of required locations has remained unchanged in the 2017, 2020 and 2023 editions of the NEC.

AFCI Requirements in Effect by State

Covered Circuits in One- and Two-Family Dwellings			
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 Only	No Statewide Adoption of AFCI Provisions

Total: 33

- 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
- Virginia†
- Washington
- West Virginia
- Wisconsin*
- Wyoming

Total: 6

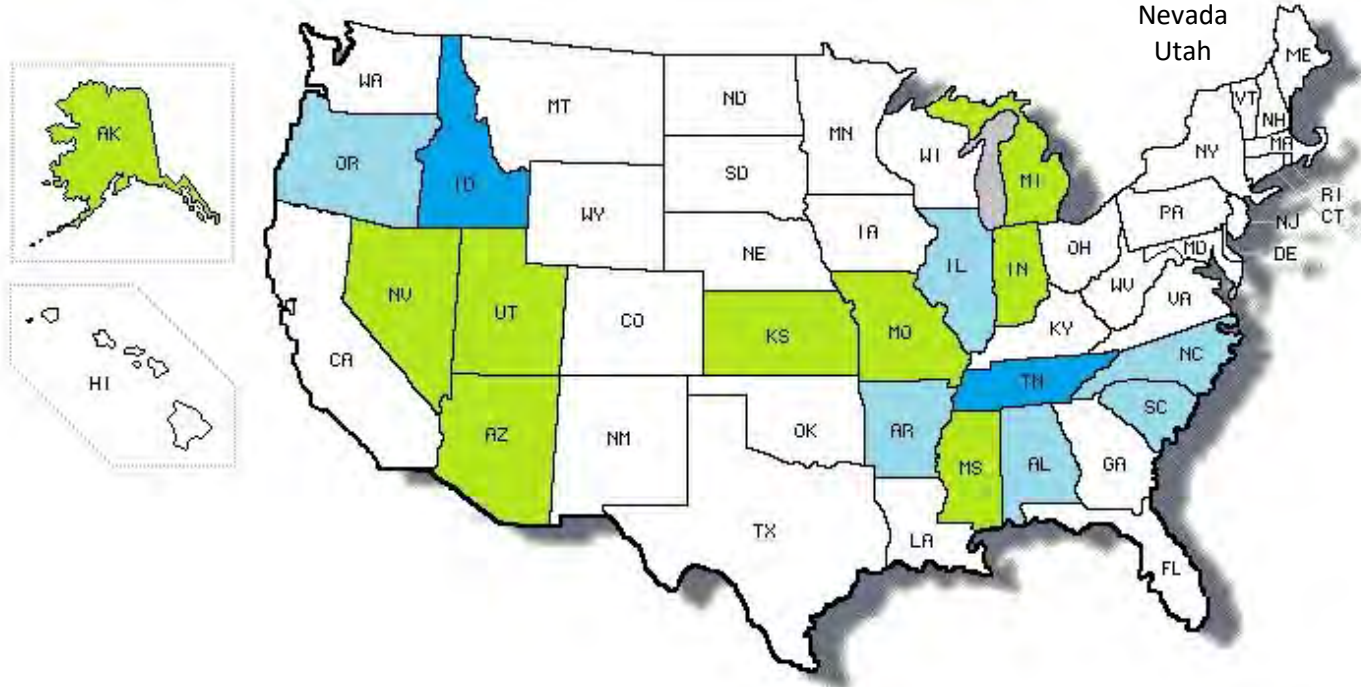
- Alabama
- Arkansas
- Illinois
- North Carolina
- Oregon
- South Carolina

Total: 2

- Idaho
- Tennessee

Total: 9

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



* Excludes kitchens

† Excludes where GFCI protection is required

Amendments to AFCI and GFCI Provisions by State

No Statewide Adoption of Residential Electrical Code	Amendments to Both <u>AFCI</u> And <u>GFCI</u> Provisions	Amendments to <u>AFCI</u> Provisions Only	Amendments to <u>GFCI</u> Provisions Only	No Amendments to AFCI or GFCI Provisions
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Total: 6

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

Total: 12

- Idaho
- Indiana
- Massachusetts
- North Carolina
- North Dakota
- Ohio
- Oregon
- South Carolina
- South Dakota
- Vermont
- West Virginia
- Wisconsin

Total: 8

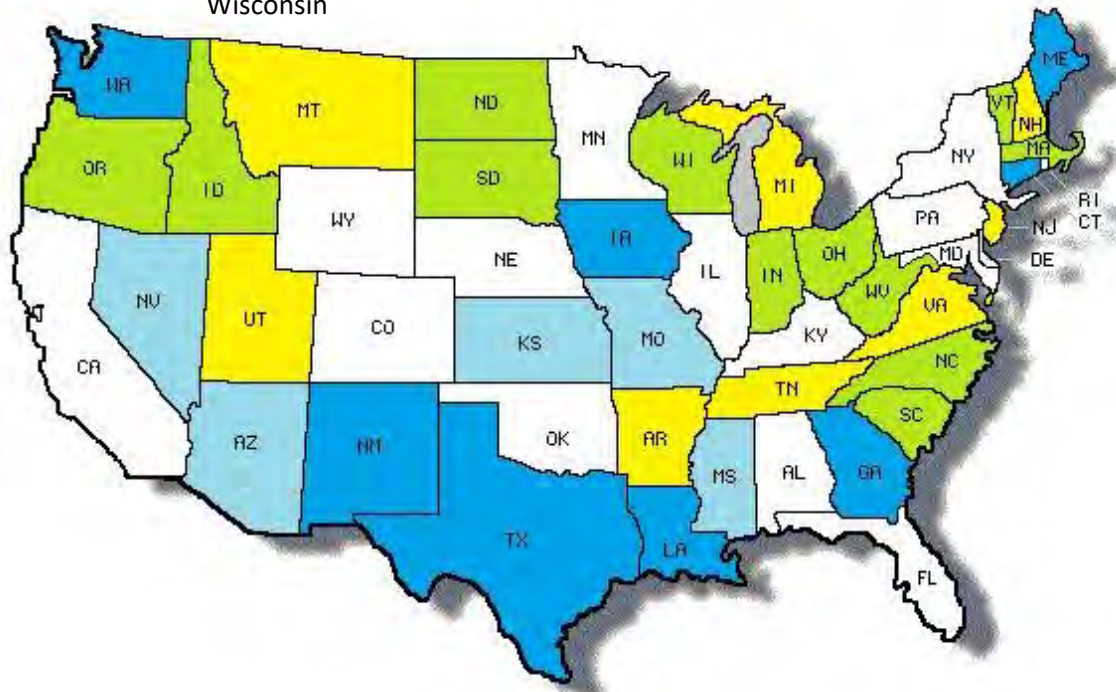
- Arkansas
- Michigan
- Montana
- New Hampshire
- New Jersey
- Tennessee
- Utah
- Virginia

Total: 9

- Connecticut
- District of Columbia
- Georgia
- Iowa
- Louisiana
- Maine
- New Mexico
- Texas
- Washington

Total: 16

- Alabama
- California
- Colorado
- Delaware
- Florida
- Hawaii
- Illinois
- Kentucky
- Maryland
- Minnesota
- Nebraska
- New York
- Oklahoma
- Pennsylvania
- Rhode Island
- Wyoming



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State (City)	Residential Electrical Code Adopted and Effective Date	Technical Amendments To AFCI & GFCI	Documents	Notes
Click on the state or city for the agency website.	IRC International Residential Code—Electrical Section NEC National Electrical Code		Download documents to use bookmark references.	
Alabama	2008 NEC Effective 10/1/2016		Adoption	The 2015 IRC was adopted, and the 2008 NEC is deemed equivalent to the electrical requirements of the IRC. The 2020 NEC only applies to state projects. The Division of Construction Management , which adopted the 2020 NEC, does not have jurisdiction over residential property.
Alaska	No Statewide Adoption		Adoption	"Public structures" and any place of employment are required to be completed under the 2020 NEC. "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.
City of Anchorage	2017 NEC Effective 10/27/2020	AFCI/GFCI	Amendments	AFCI requirements were amended to remove outlet branch-circuit type AFCI devices from the list of accepted means of protection. Central heating equipment was added to the exception for AFCI protection. Additional required receptacles were added for exterior parking and crawlspaces. One- and two-family homes and townhouses are required to have one EV charging rough-in per dwelling unit.
Arizona	No Statewide Adoption			
City of Phoenix	2017 NEC Effective 7/1/2019	GFCI	Amendments	Adds "other indoor damp and wet locations" to the areas requiring GFCI protection.
Arkansas	2020 NEC Effective 8/1/2022	AFCI	Amendments	The AFCI requirements were removed for kitchens and laundry rooms.

State (City)	Residential Electrical Code Adopted and Effective Date	Technical Amendments To AFCI & GFCI	Documents	Notes
California	2020 NEC Effective 1/1/2023		Adopted Code Amendments	The 2022 California Electrical Code, or Part 3 of the California Building Standards Code, incorporates the 2020 edition of the NEC. Local jurisdictions may adopt more restrictive requirements if they are warranted by local conditions.
Colorado	2020 NEC Effective 8/1/2020		Adoption	The State Electrical Board has adopted the 2023 NEC. The effective date is August 1, 2023.
Connecticut	2020 NEC Effective 10/1/2022	GFCI	Amendments	The GFCI requirements for outdoor outlets are amended to exempt certain HVAC equipment.
Delaware	2020 NEC Effective 7/11/2021		Adoption (See p. 25)	
District of Columbia	2014 NEC Effective 5/29/2020	GFCI	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		IRC Amendments	Electrical systems, equipment and components are required to comply with the 2017 edition of the NEC.
Georgia	2020 NEC Effective 1/1/2021	GFCI	Adoption Amendments	The 2020 edition of the NEC was originally adopted without amendments, but GFCI requirements for outdoor outlets (Section 210.8(F)) was deleted effective 9/1/2021.
Hawaii	2020 NEC Adopted 3/15/2022		Adoption	All State building construction must comply with the 2020 NEC no later than 3/14/2023. Each county must adopt the 2020 NEC by 3/14/2024. The only amendment was to the title of the document.
Idaho	2017 NEC Effective 7/1/2017	AFCI/GFCI	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 (City)	Residential Electrical Code Adopted and Effective Date	Technical Amendments To AFCI & GFCI	Documents	Notes
Illinois	2008 NEC Effective 7/1/2011		Adoption City and County Adoptions	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.
City of Chicago	2017 NEC Effective 3/1/2018	AFCI	Amendments	AFCI protection requirements were expanded to include all circuits in dwelling units.
Indiana	2018 IRC Effective 12/26/2019	AFCI/GFCI	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	2020 NEC Effective 5/1/2021	GFCI	Amendments	GFCI requirements were removed for 240-volt receptacles.
Kansas	No Statewide Adoption			2008 NEC was adopted by the state for state-owned buildings only.
City of Wichita & Sedgwick County	2017 NEC Effective 1/1/2021	GFCI	Amendments	GFCI protection for 240-volt receptacles are not required until 1/1/2024. GFCI protection is not required for outdoor outlets under 210.8(F) until 1/1/2024. Storage areas and future habitable spaces in unfinished basements require a light and a wall switch.
Kentucky	2017 NEC Effective 8/1/2019		Adoption	
Louisiana	2020 NEC Effective 1/1/2023	GFCI	Amendments	The GFCI provisions for outdoor outlets were amended. An exception was included for HVAC equipment.
Maine	2020 NEC Effective 7/2/2021	GFCI	Amendments	The GFCI provisions for outdoor outlets were amended, the requirements for surge protection were removed, and the zone where receptacles are prohibited near bathtubs and shower spaces was reduced to the pre-2020 dimensions.
Maryland	2017 NEC Effective 3/25/2019		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 (City)	Residential Electrical Code Adopted and Effective Date	Technical Amendments To AFCI & GFCI	Documents	Notes
Massachusetts	2023 NEC Effective 1/1/2023	AFCI/GFCI	Amendments	The GFCI provisions were amended. When determining the distance from receptacles, the shortest path may not be measured through a cabinet door opening, doorway, or window. 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. Kitchen island and peninsulas are required to have at least one receptacle, and it is allowed to be max. 12 inches below the countertop in certain cases.
Michigan	<u>1- & 2-Family</u> 2015 IRC Effective 2/8/2016 <u>Multifamily</u> 2017 NEC Effective 1/4/2019	AFCI	Amendments	The electrical section of the 2015 IRC, with amendments, applies to one- and two-family dwellings, and the 2017 NEC applies to multifamily. AFCI protection requirements have been completely removed from the IRC.
Minnesota	2020 NEC Effective 11/17/2020		Adoption	The Board of Electricity has adopted the 2023 NEC. The effective date is July 1, 2023.
Mississippi	No Statewide Adoption		Adoption	Local jurisdictions shall adopt one of the last three editions of the IRC.
City of Jackson	2017 NEC Effective 3/5/2019		Adoption	
Missouri	No Statewide Adoption			The NEC was adopted by the state for state-owned buildings only.
Kansas City	2017 NEC Effective 6/28/2020		Adoption	
St. Louis County	2014 NEC Effective 3/5/2019	AFCI/GFCI	Amendments	The GFCI provisions were limited to laundry areas with sinks and removed from the kitchen dishwasher branch circuit. AFCI protection requirements were amended to include only bedrooms.

State (City)	Residential Electrical Code Adopted and Effective Date	Technical Amendments To AFCI & GFCI	Documents	Notes
Montana	2020 NEC Effective 6/11/2022	AFCI	Adoption	The requirements for AFCI protection were 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		Adoption	
Nevada	No Statewide Adoption			The NEC was adopted by the state for state-owned buildings only.
Clark County	2017 NEC Effective 6/28/2020	GFCI	Adoption Amendments	The NEC was adopted as amended by the Southern Nevada Amendments to the 2017 National Electrical Code. GFCI protection was expanded for areas other than dwelling units. A new section limits the number of outlets on dwelling branch circuits.
City of Las Vegas	2017 NEC Effective 7/9/2018	GFCI	Adoption Amendments	See notes for Clark County.
New Hampshire	2020 NEC Effective 7/1/2022	AFCI	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	2020 NEC Effective 9/6/2022	AFCI	Amendments	The requirement for AFCI protection was deleted for branch circuit extensions and modifications as well as for receptacle replacement.
New Mexico	2020 NEC Effective 3/28/2023	GFCI	Adoption	The GFCI requirements for outdoor outlets are amended to exempt HVAC equipment. The number of receptacles on islands and peninsulas is amended to at least one.
New York	2018 IRC Effective 5/12/2020		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.

State (City)	Residential Electrical Code Adopted and Effective Date	Technical Amendments To AFCI & GFCI	Documents	Notes
New York City	2008 NEC Effective 7/1/2011		Adoption	
North Carolina	<u>1- & 2-Family</u> 2017 NEC Effective 6/12/2018 <u>Multifamily</u> 2020 NEC Effective 11/1/2021	AFCI/GFCI	Amendments Additional Amendments Scoping	The 2020 NEC was adopted with amendments, but the 2017 NEC still applies to one- and two-family dwellings. 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	2020 NEC Effective 1/1/2021	AFCI/GFCI	Amendments	The NEC was amended to exempt AFCI protection for refrigerators on a dedicated circuit, furnaces used as a main heating source, and receptacles supplying sewer and sump pumps. GFCI protection was added for receptacles, other than single receptacles, serving garage door openers. Surge protection for dwellings was deleted.
Ohio	2017 NEC Effective 7/1/2019	AFCI/GFCI	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	<u>1- & 2-Family</u> 2018 IRC Effective 9/14/2022 <u>Multifamily</u> 2020 NEC Effective 9/14/2022		IRC Amendments NEC Amendments	The electrical section of the 2018 IRC with amendments applies to one- and two-family dwellings, and the 2020 NEC with amendments applies to multifamily. The electrical amendments to the IRC do not include any changes to the AFCI and GFCI protection requirements. The 2020 NEC modified the GFCI requirements for outdoor outlets.

State (City)	Residential Electrical Code Adopted and Effective Date	Technical Amendments To AFCI & GFCI	Documents	Notes
Oregon	2020 NEC Effective 4/1/2021	AFCI/GFCI	Amendments Adopted Code	GFCI protection is not required for 240-volt receptacles, finished portions of basements (if not otherwise required), 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.” GFCI protection for outdoor outlets was limited to buildings other than dwelling units. 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 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. Additional amendments were adopted for kitchen islands and peninsulas, surge protection, emergency disconnects, bathtub and shower spaces, among others.
Pennsylvania	<u>1- & 2-Family</u> 2018 IRC Effective 2/14/2022 <u>Multifamily</u> 2017 NEC Effective 2/14/2022		IRC Adoption	The electrical section of the 2018 IRC with amendments applies to one- and two-family dwellings, and the 2017 NEC with amendments applies to multifamily. The 2018 IRC was adopted with several technical amendments which did not affect AFCI or GFCI protection.
Rhode Island	2020 NEC Effective 2/1/2022		Amendments	The 2020 NEC was adopted with several technical amendments which did not affect AFCI or GFCI protection.

State (City)	Residential Electrical Code Adopted and Effective Date	Technical Amendments To AFCI & GFCI	Documents	Notes
South Carolina	<p><u>1- & 2-Family</u> 2021 IRC Effective 1/1/2023</p> <p><u>Multifamily</u> 2020 NEC Effective 1/1/2023</p>	AFCI/GFCI	<p>Adoption</p> <p>Amendments</p>	<p>The electrical section of the 2021 IRC with amendments applies to one- and two-family dwellings, and the 2020 NEC with amendments applies to multifamily.</p> <p>The GFCI & AFCI provisions were amended to only include 120-volt receptacles and branch circuits. GFCI protection was removed for finished portions of walk-out basements, if not required by other provisions. AFCI coverage excludes kitchens and laundry rooms.</p> <p>Additional amendments were adopted for crawl spaces, kitchen islands and peninsulas, and surge protection.</p>
South Dakota	2020 NEC Effective 7/1/2020	AFCI/GFCI	Amendments	The 2020 NEC was adopted with amendments. GFCI protection for receptacles does not include 240-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.
Tennessee	2017 NEC Effective 3/19/2018	AFCI	Amendments	AFCI protection requirements were amended to include only bedrooms.
Texas	2020 NEC Effective 11/1/2020	GFCI	<p>Adoption</p> <p>Amendments</p>	<p>A supplemental amendment was adopted effective 12/31/2022 to remove the requirement for GFCI protection for outdoor outlets under 210.8(F). The Texas Occupations Code § 1305.201 provides municipalities the authority to make local amendments to the NEC.</p> <p>The proposed effective date for the 2023 NEC is September 1, 2023.</p>

State (City)	Residential Electrical Code Adopted and Effective Date	Technical Amendments To AFCI & GFCI	Documents	Notes
Utah	<p><u>1- & 2-Family</u> 2015 IRC Effective 7/1/2019</p> <p><u>Multifamily</u> 2020 NEC Effective 7/1/2021</p>	AFCI	<p>Adoption</p> <p>IRC Amendments</p> <p>NEC Amendments</p>	<p>The electrical section of the 2015 IRC with amendments applies to one- and two-family dwellings, and the 2020 NEC with amendments applies to multifamily.</p> <p>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.</p> <p>In the NEC, GFCI protection for receptacles does not include 240-volt receptacles, finished portions of basements, and outdoor outlets if not required by other provisions. The zone where receptacles are prohibited near bathtubs and shower spaces was reduced to the pre-2020 dimensions.</p> <p>Codes are adopted by the Utah legislature, with the Building Code Commission making recommendations.</p>
Vermont	2020 NEC Effective 4/15/2022	AFCI/GFCI	Amendments	<p>GFCI protection is amended to only apply to readily accessible receptacles. In laundry areas, it only applies to those receptacles installed within 6 feet of a washing machine or sink.</p> <p>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.</p>
Virginia	<p><u>1- & 2-Family</u> 2018 IRC Effective 7/1/2021</p> <p><u>Multifamily</u> 2017 NEC Effective 7/1/2021</p>	AFCI	<p>IRC Adopted Code</p> <p>NEC Amendments</p>	<p>The electrical section of the 2018 IRC with amendments applies to one- and two-family dwellings, and the 2017 NEC with amendments applies to multifamily.</p> <p>The IRC was amended to exempt AFCI protection where GFCI protection is required.</p>
Washington	2020 NEC Effective 10/29/2020	GFCI	<p>Amendments</p> <p>Significant Changes</p>	<p>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.</p> <p>Cities may have separate electrical ordinances but must be at least as stringent as the State.</p>

State (City)	Residential Electrical Code Adopted and Effective Date	Technical Amendments To AFCI & GFCI	Documents	Notes
West Virginia	2020 NEC Effective 8/1/2022	GFCI/AFCI	Amendments	The GFCI provisions for outdoor outlets were amended by adding an exception for certain HVAC equipment. 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 8/1/2018	AFCI/GFCI	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			Local jurisdictions may amend the electrical code.