



Board of Building Standards

RESIDENTIAL CONSTRUCTION ADVISORY COMMITTEE MEETING AGENDA

DATE: MAY 11, 2022
TIME: 9:00 AM
LOCATION: TRAINING RM 3, 6606 TUSSING RD, REYNOLDSBURG, OHIO 43068
[Videoconference Link](#)

Call to Order

Roll Call

Agenda – Changes or Additions

Consideration of Minutes

[MIN-1](#) March 23, 2022 Meeting Minutes

Old Business

New Business

[NB-1](#) Petition 22-01 - 2020 NEC RCO
NB-2 2021 IRC Chapters 4 & 5

Reports from Chairperson

Reports from Executive Secretary

Public Comments

Comments from Committee Members

Future Meeting Schedule*

August 24

October 19

December 14

* More as needed for code review

Motion to Adjourn

MINUTES
RESIDENTIAL CONSTRUCTION ADVISORY COMMITTEE MEETING
MARCH 23, 2022

Call to Order

Mr. Johnson called the regular meeting to order at 9:05 am on March 23, 2022 at 6606 Tussing Rd, Reynoldsburg.

Roll Call

Committee members present: Ric Johnson, Don Phillips, Lindsay Bott, Tony Catalano, Andre Frasier, Bill Kaufholz, Roger Puzitello, and Mayor Christie Ward

Staff members present: Jay Richards & Regina Hanshaw

Visitors present: Kris Klaus

Consideration of Minutes

MIN-1 January 26, 2022 Meeting Minutes

Mr. Phillips moved and Mr. Kaufholz seconded to approve the January 26, 2022 minutes. Motion passed unanimously.

Agenda

Mr. Phillips moved and Mr. Kaufholz seconded to accept the agenda. Motion passed unanimously.

Old Business

There was no old business.

New Business

NB-1 2021 IRC Chapter 3 Review

Mr. Richards presented the significant changes to the 2021 IRC Chapter 3 including the code change proposal, reasoning and the cost impact for the change noted by the code change proponent. After review of each change and discussion, Mr. Phillips moved and Ms. Ward seconded to approve the changes of 2021 IRC Chapter 24. Motion passed unanimously by roll call vote.

Reports from Chairperson

Mr. Johnson stated the as the RCAC has been to look at the codes more on a 5 year cycle rather the ICC's 3 year cycle and expressed concerns regarding the push to net zero homes by 2035 and its cost on home construction. Mr. Johnson encouraged members to ask questions as the committee moves through the review process.

Reports from Executive Secretary

Ms. Hanshaw informed the committee that SB 9 passed requires agencies to reduce regulatory restrictions in their rules by 30 % over next 3 years and its potential impact on the residential code. Also, Ms. Hanshaw informed the committee that the Board did receive a petition to adopt the 2020 NEC in the RCO which is expected to be referred to the committee for review and recommendation. Ms. Hanshaw also introduced new committee member Lindsay Bott.

Public Comments

No public comments.

Comments from Committee Members

There were no comments from committee members.

Future Meeting Schedule

May 11

August 24

October 19

December 14

* More as needed for code review

Motion to Adjourn

Mr. Phillips moved and Ms. Ward seconded to adjourn. Motion passed unanimously.

Ric Johnson, Chair
Residential Construction Advisory Committee

Regina Hanshaw, Executive Secretary
Board of Building Standards

Distribution:

File

Committee Members and Staff

March 17, 2022

Ms. Regina Hanshaw
Executive Secretary
Ohio Board of Building Standards
6606 Tussing Road
Reynoldsburg, OH 43068

Subject: Petition to Update NFPA 70

Dear Ms. Hanshaw:

Pursuant to Ohio Revised Code Section 3781.12, please find attached a petition from the Ohio Electrical Coalition requesting the Ohio Board of Building Standards update the 2017 edition of NFPA 70 to the 2020 edition of NFPA 70 for the Residential Code of Ohio.

Thank you for your time and consideration regarding this matter.

Sincerely,

Tom Moore

Ohio Electrical Coalition
Petition to update referenced standard
(NFPA 70) National Electrical Code
for the Residential Code of Ohio

Table of Contents

| | |
|---|----|
| Application for Rule Change..... | 3 |
| Ohio Electrical Coalition Petition..... | 5 |
| Ohio Chapter IAEI | 10 |
| Ohio Building Officials Association | 11 |
| National Fire Protection Association..... | 13 |
| Greater Cincinnati Electrical Association..... | 14 |
| Underwriters Laboratories | 15 |
| Independent Electrical Contractors | 17 |
| Schneider Electric | 18 |
| Siemens | 19 |
| National Electrical Manufacturers Association | 20 |

APPLICATION

FOR
RULE CHANGE



BOARD OF BUILDING STANDARDS

6606 Tussing Road, P.O. Box 4009

Reynoldsburg, Ohio 43068-9009

(614) 644-2613

bbs@ohio.gov

www.com.state.oh.us/dico/bbs/default.aspx

Pursuant to section 3781.12 of the Revised Code and rules adopted by the Board of Building Standards, application is herewith submitted to adopt, amend, or annul a rule adopted by the Board pursuant to section 3718.10 of the Revised Code.

For BBS use:

Petition #:

Date Recv'd:

Submitter:

Thomas E Moore

(Contact Name)

Ohio Electrical Coalition

(Organization/Company)

Address:

3462 Brunk Road

(Include Room Number, Suite, etc.)

Akron

(City)

Ohio

(State)

44312

(Zip)

Telephone Number: 330-289-7932

Fax Number:

Date: March 17, 2022

E-mail Address: tmoore1767@gmail.com

Code Section: Referenced Standard NFPA 70: 4101:8-34 & 4101:8-44-01

General Explanation of Proposed Change (attach additional sheets if necessary):

Please see attachment

Explanation of Cost Impact of Proposed Code Change*: Please see attachment

*Attach additional cost information as necessary to justify any statement of cost increase or cost decrease.

| Information on Submittal (attach additional sheets if necessary): | |
|--|---|
| 1. Sponsor: | <p>Ohio Electrical Coalition</p> <p>Organization sponsoring or requesting the rule change (if any)</p> |
| 2. Rule Title: | <p>4101:8-34 Electrical: 3401.1 Electrical and 4101:8-44-01 Referenced Standards 70-20 National Electrical Code</p> <p>Title of rule change</p> |
| 3. Purpose/ Objective: | <p>Please see attachment</p> <p>Technical justification for the proposed rule change</p> |
| 4. Formatted Rule Language (Using Strike-out for Deleted Text and Underline for Added Text) | <p>Please see attachment</p> <p>Use strike-out for deleted text and underline for added text</p> |
| 5. Notes: | <ol style="list-style-type: none"> 1. To encourage uniformity among states using model codes, it is recommended that the submitter first submit any code change directly to ICC and participate in the national model code development process. 2. Please provide a copy of application and documentation. 3. Use a separate form for each code change proposal. |

March 16, 2022

Ohio Board of Building Standards
Regina Hanshaw, Executive Secretary
6606 Tussing Road
Reynoldsburg, Ohio

Re: Petition to update referenced standard (NFPA 70) National Electrical Code 2017 edition to the 2020 edition

Rule Titles:

4101:8-34 Electrical: **3401.1 Electrical.** *The provisions of the National Electrical Code, NFPA 70, shall be incorporated herein and shall govern the installation, testing and operation of the electrical systems of one-, two- and three-family dwellings and their accessory structures, except for the following:*

~~1. Section 210.8(A)(2) shall be modified to read:~~ Garages, and also accessory buildings that have a floor located at or below grade level not intended as habitable rooms and limited to storage areas, work areas, and areas of similar use ~~except for the receptacle located to serve a garage door opener when the device is a single receptacle and located in the ceiling.~~

~~2. Section 210.8(A)(5) shall be modified to read:~~ Unfinished portions or areas of the basement not intended as habitable rooms.

Exceptions:

~~1. A receptacle supplying only a permanently installed fire alarm or burglar alarm system shall not be required to have ground-fault circuit-interrupter protection.~~

~~2. A single receptacle located to serve a sump pump shall not be required to have ground-fault circuit-interrupter protection when there is a duplex receptacle with ground-fault circuit-interrupter protection within six (6) feet of the sump pump.~~

~~3. Section 210.8(D) shall be deleted.~~

~~4. Section 210.12(A) shall be modified to read:~~

All 120-volt single-phase, 15- and 20-ampere branch circuits supplying outlets or devices installed in dwelling unit kitchens, family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sun rooms, recreational rooms, closets, hallways, laundry rooms, or similar rooms or areas shall be protected by any of the means described in 210.12(A)(1) through (6):

~~(1) A listed combination-type arc-fault circuit interrupter, installed to provide protection of the entire branch circuit.~~

~~(2) A listed branch-feeder-type AFCI installed at the origin of the branch circuit in combination with a listed outlet branch-circuit type arc-fault circuit interrupter installed at the first outlet box on the branch circuit. The first outlet box in the branch circuit shall be marked to indicate that it is the first outlet of the circuit.~~

~~(3) A listed supplemental arc protection circuit breaker installed at the origin of the branch circuit in combination with a listed outlet branch-circuit type arc-fault circuit interrupter installed at the first outlet box on the branch circuit where all of the following conditions are met:~~

~~a. The branch-circuit wiring shall be continuous from the branch-circuit overcurrent device to the outlet branch-circuit arc-fault circuit interrupter.~~

~~b. The maximum length of the branch-circuit wiring from the branch-circuit overcurrent device to the first outlet shall not exceed 15.2 m (50 ft.) for a 14 AWG conductor or 21.3 m (70 ft.) for a 12 AWG conductor.~~

~~c. The first outlet box in the branch circuit shall be marked to indicate that it is the first outlet of the circuit.~~

(4) A listed outlet branch-circuit type arc-fault circuit interrupter installed at the first outlet on the branch circuit in combination with a listed branch-circuit overcurrent protective device where all of the following conditions are met:

- a. The branch-circuit wiring shall be continuous from the branch-circuit overcurrent device to the outlet branch-circuit arc-fault circuit interrupter.
- b. The maximum length of the branch-circuit wiring from the branch-circuit overcurrent device to the first outlet shall not exceed 15.2 m (50 ft.) for a 14 AWG conductor or 21.3 m (70 ft.) for a 12 AWG conductor.
- c. The first outlet box in the branch circuit shall be marked to indicate that it is the first outlet of the circuit.
- d. The combination of the branch-circuit overcurrent device and outlet branch-circuit AFCI shall be identified as meeting the requirements for a system combination type AFCI and shall be listed as such.

(5) If RMC, IMC, EMT, Type MC, or steel-armored Type AC cables meeting the requirements of 250.118, metal wireways, metal auxiliary gutters, and metal outlet and junction boxes are installed for the portion of the branch circuit between the branch-circuit overcurrent device and the first outlet, it shall be permitted to install a listed outlet branch-circuit type AFCI at the first outlet to provide protection for the remaining portion of the branch circuit.

(6) Where a listed metal or nonmetallic conduit or tubing or Type MC cable is encased in not less than 50 mm (2 in.) of concrete for the portion of the branch circuit between the branch-circuit overcurrent device and the first outlet, it shall be permitted to install a listed outlet branch-circuit type AFCI at the first outlet to provide protection for the remaining portion of the branch circuit. Exception No. 1: Where an individual branch circuit to a fire alarm system installed in accordance with 760.41(B) or 760.121(B) is installed in RMC, IMC, EMT, or steel-sheathed cable, Type AC or Type MC, meeting the requirements of 250.118, with metal outlet and junction boxes, AFCI protection shall be permitted to be omitted.

Exception No. 2: Branch circuits supplying receptacle outlets installed to serve only the kitchen countertop surfaces shall be permitted to be installed without arc-fault circuit interrupter protection.

4101:8-44-01 Referenced standards: ~~70-17 National Electrical Code~~ 70-20 National Electrical Code

Submitter: Thomas E. Moore, Ohio Electrical Coalition, 3462 Brunk Rd, Akron, Ohio 44312, 330-289-7932, tmoore1767@aol.com

Sponsor: Ohio Electrical Coalition

Reason and Technical Justification for Rule Change:

Pursuant to O.R.C. 3781.12, the Ohio Electrical Coalition respectfully requests the Ohio Board of Building Standards update the 2017 edition of NFPA 70 with the 2020 edition of NFPA 70 for one- two- and three-family dwellings.

The purpose of NFPA 70 is simple and straightforward; to protect persons and property from hazards arising from the use of electricity. For over 125 years the National Electrical Code has codified requirements that establish a minimum level of safety for electrical systems installed in homes, businesses and elsewhere. As the use of electrically powered equipment has increased throughout our history, so has the need to develop requirements that allow new technologies to be safely implemented into workplaces and homes.

NFPA 70 is created through an exhaustive stakeholder consensus process that considers input from a balance of interests and reflects the collective knowledge of qualified electricians, electrical inspectors, manufacturers, testing lab personnel, and other professionals that review and act on input from the public with the singular focus of ensuring safe electrical installations.

The OBBS has taken an important step in public safety with moving forward with the adoption process for the 2020 NEC for all structures regulated by the Ohio Building, Mechanical and Plumbing Codes, which includes 4-family and larger multifamily dwellings. Ohio citizens are highly dependent on reliable and safe electrical power where they work, where they recreate and most importantly, where they live. Adoption of the 2012 NFPA 70 for the Residential Code of Ohio will ensure the same level of protection is provided, regardless of the size of the dwelling unit.

In addition to a request to update to the 2020 edition of NFPA 70, this petition is also requesting deletion of the Ohio specific amendments to NFPA 70 sections 210.8(A)(2) & (A)(5), 210.8(D) and 210.12(A). The potential for a shock hazard is not simply reduced by the fact that the receptacle is in a dedicated space. From a hazard-based safety-engineering standpoint, you would only want to defeat or eliminate a primary safety device if the hazard could be greater if the safety device was not defeated. One would have to make this case with a sump pump, garage door opener or dishwasher if the GFCI were to be eliminated from that location.

Published data from the U.S. Consumer Product Safety Commission show a decreasing trend in the number of electrocutions in the United States since the introduction of GFCI devices. The US Consumer Product Safety Commission (US CPSC) conducted a cost/benefit analysis of a proposal for additional GFCIs in new residential installations.¹ As reflected in this study, the expected benefits would be a reduction of societal costs associated with residential electrocutions, which translates to the benefit of this life-saving technology being greater than the initial upfront cost.

The original call for enhanced branch circuit and cord protection came from the CPSC based on fires attributed to electrical origin. The manufacturers, in concert with Underwriters Laboratories, worked to develop a product and a product standard to address the CPSC concern. The AFCI was the product developed as the means to mitigate the types of circuit malfunctions that circuit breakers and fuses are not designed to protect against. Modern technology has provided us with the opportunity to incorporate this next generation of circuit protection devices into homes and other occupancies. These devices advance the cause of electrical safety by providing early reaction and circuit interruption where wiring systems concealed within walls and ceilings are damaged. Requirements for AFCIs have been included in NFPA 70 since the 1999 edition. These devices also respond to damaged appliance cords, a known cause of home fires. The current amendment removes these requirements from receptacles serving kitchen countertops, which lessen the level of protection provided for the public.

The US Fire Administration published a report² in May 2019 that shows a decline in the number of fires attributed to electrical malfunction. Data for the 10-year period of 2008 to 2017 reflected a 14% decrease in fires, 19% decrease in deaths, 34% decrease in injuries and 35% decrease in dollar loss.

Following are some key changes that impact electrical safety:

Keeping the regulatory document current with industry trends in new technology and delivery and generation of electric power.

- 230.67. New requirement covering surge protection for dwelling units aligns with the everchanging electrical industry landscape to protect against surges that can damage sensitive electronics and systems found in most modern appliances, safety devices and equipment used in dwellings. With the expanded use of distributed energy resources, these can also contribute introduction of surges into the system.
- 230.85. New requirement for emergency disconnecting means at one- and two-family dwelling

units to ensure first responders can safely remove power from an involved structure.

- Article 242 Overvoltage Protection – new article addresses installation requirements for Surge-Protective Devices (SPD) and Surge Arrestors used to achieve this protection.
- Article 625 Electric Vehicle Power Transfer System – requirements for electric vehicles and supply equipment to encompass bidirectional current exchange.
- Updates to Articles 690 Solar Photovoltaic (PV) Systems, 706 Energy Storage Systems, Article 710 Standalone Systems and Article 712 Direct-Current Micro-grids continue to support new and expanding technologies, which has immeasurable societal benefits at both a micro- and macro-economic perspective.

Examples of new and revised requirements that may provide relief on the overall cost of the electrical system.

- 210.11(C)(3) & (4). Revision specifies which receptacle outlets are required to be on the required 20 ampere circuit for bathrooms and garages which provides more flexibility with circuiting in those areas.
- Article 220 Branch-Circuit, Feeder, and Service Load Calculations – Several revisions to this article, including the modernization of the tables currently in use for calculations, which has been extensively revised to reflect improvements in energy efficiency and may grant substantial relief for sizing of service and feeder distribution systems.
- 225.30(B). Revised to permit multiple smaller feeders, with smaller conductors and lower rated OCPD's to allow more flexibility with the design.

Protecting electrical workers while maintaining or servicing electrical or electrically powered equipment.

- 230.62(C). New requirement that provides additional shock protection with barriers to be placed in service equipment to prevent inadvertent contact.
- 230.71(B). Requirements for service disconnecting means is revised by eliminating the risk of the inability to establish an electrically safe work condition for justified energized work that must be performed within service equipment enclosures with more than one service disconnect.

Protecting people from electric shock in homes, workplaces and places of recreation.

- First introduced in the early 1970s, their continued expansion to cover areas in homes and workplaces where occupants are particularly susceptible to electric shock accidents can be directly attributed to reductions in electrocutions and electric shock accidents.
- Revision to add floating buildings to the scope of Article 555 and revised to provide greater flexibility with the application of ground-fault protection requirements.

These examples illustrate the importance of regularly updating NFPA 70 in order to recognize new methods and installation practices for safely distributing electrical power, safe interaction with electrical systems, to address safety concerns not previously covered in the referenced standard and to put new requirements in place that facilitate the safe implementation of new technology covering the generation, distribution and management of electrical power. This is the work performed during the revision process by the volunteer industry subject matter experts who serve on the NFPA technical committees. Updating to the 2020 NFPA 70 is a vitally important and proactive step for consumer protection and for the safe advancement of new electrical system technology.

The cost impact of complying with the 2020 edition of NFPA 70 will vary depending on the design approach and should be considered holistically by considering the safety benefit alongside of the cost. Additionally, there are numerous types of materials, equipment and device options in the electrical marketplace, and multiple methods for achieving code compliance. The coalition is prepared to submit a cost impact analysis if petition is approved to begin the review and rulemaking process.

Updating NFPA 70 makes sure communities continue to provide an acceptable level of public safety while supporting the latest technological advances, which is core to the mission of the OBBS.

This petition is submitted on behalf of the Ohio Electrical Coalition, which is comprised of a broad cross section of industry stakeholders committed to moving electrical safety forward in the State of Ohio through timely adoption of the 2020 edition of NFPA 70. Ohio citizens expect their electrical system will be safe from fire and shock hazards. This code update will ensure that Ohio remains at the forefront of technological developments in the electrical industry and ensure that electrical systems are safe for homeowners and citizens across Ohio, the most important stakeholder in the adoption and enforcement of construction safety codes.

The coalition members look forward to supporting the OBBS with moving forward with revising and updating Ohio electrical safety requirements that will enable us to be competitive and enhance the safety of our workforce, communities, and families.

Sincerely,

Ohio Electrical Coalition

¹[Consumer Product Safety Commission – Economic Considerations – GFCIs](#)

²[US Fire Administration – Residential Building Electrical Malfunction Fire Trends \(2008-2017\)](#)



"Let the Code Decide"

OHIO CHAPTER

International Association of Electrical Inspectors

President

Karl Frederick
Central Division

March 16, 2022

First Vice-President

Zach Jenkins
Northwest Division

Ohio Board of Building Standards
6606 Tussing Rd
Reynoldsburg, OH 43068

Second Vice-President

William Buetler
Western Reserve

Subject: 2020 NFPA 70, National Electrical Code (NEC) Update

Immediate Past-President

Michael Koken
Eastern Division

The Ohio Chapter IAEI strongly encourages the Ohio Board of Building Standards to update its current NFPA 70, from the 2017 edition to the 2020 edition for Residential Code of Ohio regulated occupancies and supports the petition submitted on behalf of the Ohio Electrical Code Coalition. The OBBS has proven time and time again that they are at the forefront of public safety by adopting codes that ensure the health, safety and security of the occupants or users of buildings.

Secretary/Treasurer

Lorenzo Adam
Southwest Division

The NEC provides for the practical safeguarding of persons and property from the hazards arising from the use of electricity.

Inspector Member

Pete Baldauf
Southwest Division

In addition to new requirements to address advancing alternative technologies and improved safety for the electrical worker, the 2020 NEC also expands important safety requirements for dwelling unit occupancies. While expansion of important safety requirements may add cost, the 2020 NEC also includes requirements that provide economic relief.

Inspector Member

Jeff Affolter
Akron Division

The Ohio Chapter IAEI Board of Directors respectfully requests the OBBS move forward with updating the NFPA 70, NEC, to the 2020 edition. Embracing these requirements by updating to the 2020 NEC is an important step forward with public safety.

Western Section**Chapter Representative**

Jeff Grassi
Western Reserve Division

Education Chairman

Gaylord Poe
Southwest Division

Respectfully,

Historian

Armand Lenarz
Akron Division

Karl J. Frederick

Karl Frederick, President

On behalf of the Board Members of the Ohio Chapter IAEI



CHAPTER

OHIO BUILDING OFFICIALS ASSOCIATION

PO BOX 1506, COLUMBUS OH 43216-1506
oboa.clubexpress.com



Founded 1961

March 15, 2022

CHAPTER
MEMBERS

BOCONEO

COCOA

FBOA

MVBOC

NCOBOA

NWOBOA

OCPT

ODPCA

SWOBOA

SWOFSC

Ohio Board of Building Standards
PO Box 4009
Reynoldsburg OH 43068-9009

**SUBJECT: Petition to Amend Residential Code of Ohio to Adopt 2020 Edition
National Electrical Code**

Ohio Building Officials' Association Resolution 2021-4 (attached) adopted by the general membership November 8, 2021 supports a petition for the Residential Code of Ohio to adopt the 2020 Edition National Fire Protection Association standard 70, National Electrical Code.

Sincerely,

Robert Eifert
President

Atch
a/s



OHIO BUILDING OFFICIALS ASSOCIATION

RESOLUTION 2021-4

of the

ANNUAL MEETING OF THE MEMBERS

concerning



A CODE CHANGE PETITION IMPLORING THE OHIO BOARD OF BUILDING STANDARDS TO ADOPT THE 2020 NFPA 70 (NATIONAL ELECTRICAL CODE) AS THE REFERENCE STANDARD FOR RESIDENTIAL CONSTRUCTION

WHEREAS the Board of Building Standards formulates and adopts rules governing the erection, construction, repair, and alteration of buildings known as the Ohio Building Code, Ohio Mechanical Code, Ohio Plumbing Code, and the Residential Code of Ohio; and

WHEREAS on September 2, 2021, the Board of Building Standards issued a notice of its intent to amend the Ohio Administrative Code to update rules for the Ohio Building, Mechanical, and Plumbing Codes to reference the the 2020 edition of NFPA 70 (National Electrical Code); and

WHEREAS the reference standard for Residential Code of Ohio would remain the 2017 edition of NFPA 70 (National Electrical Code); and

WHEREAS many electrical contractors and designers work on both Residential and Non-Residential projects requiring them to learn, maintain and work from two standards which would cause unnecessary burden as well as additional expense; and

WHEREAS Ohio Building Officials Association members who are charged with enforcement of Ohio building codes, recognize the need for consistent enforcement of a single reference standard for effective plan approval and inspection of electrical work on both Residential and Non-Residential projects.

BE IT RESOLVED that the members of this organization here assembled on Monday November 8, 2021 do hereby support a code change petition imploring the Ohio Board of Building Standards to adopt the 2020 NFPA 70 (National Electrical Code) as the reference standard for the Residential Code of Ohio.



NATIONAL FIRE PROTECTION ASSOCIATION

The leading information and knowledge resource on fire, electrical and related hazards

March 14, 2022

Ms. Regina Hanshaw
Executive Secretary
Ohio Board of Building Standards
6606 Tussing Rd
Reynoldsburg, OH 43068

Dear Ms. Hanshaw:

NFPA 70 focuses on the proper installation of electrical systems and equipment to protect people and property from hazards arising from the use of electricity. As electrical equipment has become more complex and widespread, the NFPA 70 has adapted to meet new challenges. Revised every three years to allow for new technologies and improved installation safety practices, NFPA 70 is a ready-to-use, comprehensive standard suitable for adoption.

NFPA 70 is developed and produced by the National Fire Protection Association (NFPA), an independent, not-for-profit standards developing organization and advocate of fire, building, and electrical safety. Since 1911, NFPA has been the sponsor of NFPA 70 and the requirements of this standard have continued to evolve with America's reliance on reliable and safe electrical energy. NFPA 70 is developed through an open, transparent, and balanced process accredited by the American National Standards Institute.

The NFPA 70 community has worked diligently to make sure safe installation rules are in place for the continuously changing electrical industry landscape. The 2020 edition of NFPA 70 has been issued by the NFPA Standards Council.

NFPA supports the petition filed on behalf of the Ohio Electrical Coalition, to update the 2017 edition of NFPA 70 to the 2020 edition. We encourage the Ohio Board of Building Standards to move forward by providing its citizens with the appropriate level of safety outlined in the 2010 edition of NFPA.

Sincerely,

A handwritten signature in black ink, appearing to read 'Meredith Hawes'.

Meredith Hawes
Regional Director, North Central Region
National Fire Protection Association
1 Batterymarch Park
Quincy, MA 02169



March 16, 2022

Regina Hanshaw, Executive Secretary
Board of Building Standards
6606 Tussing Rd
P. O. Box 4009
Reynoldsburg, OH 43068-9009

Re: Greater Cincinnati Electrical Association (GCEA) support for timely adoption of the entire "2020 NEC"

Dear Regina,

I am writing on behalf of the GCEA. The GCEA is an association that represents the interest of our members who are electrical industry companies in the greater Cincinnati area. Our mission is to provide "Quality electric service" to our community. We pursue this mission by providing on-going training, by stressing safety, and by providing a venue for communications across the different electrical company divisions necessary for a complete electrical community. GCEA membership includes electrical contractors, electrical material distributors, manufacturers, manufacturer reps, utilities, and electrical safety inspectors.

The GCEA's Board of Trustees would like to state it is in full support of the Ohio Code Coalition's petition in regards to the timely adoption of the "2020 National Electrical Code" (2020 NEC) for all electrical installations including 1, 2, and 3 – family dwellings.

Typically our members are working daily on multiple jobs in various stages of completion and having two versions of the NEC active at one time is awkward and causes an additional concern on each project. The GCEA strongly supports the alleviation of this burden on our industry.

Sincerely

A handwritten signature in black ink, appearing to read "Terrence J. Eibel", is written over a horizontal line.

Terrence J. Eibel

Executive Director, GCEA
P.O. Box 58183
Cincinnati, OH 45258
513-922-6501



March 16, 2022

Ohio Board of Building Standards
Regina Hanshaw, Executive Secretary
6606 Tussing Road
Reynoldsburg, OH 43068

Subject: Support for Petition to update the referenced National Electrical Code to the 2020 edition

Dear Secretary Hanshaw,

We at Underwriters Laboratories (UL) are deeply committed to advancing the safety of the citizens of the state of Ohio. UL believes NFPA 70, the National Electrical Code® (NEC®) serves as an important tool in advancing that safety. Adoption of the most current edition of the code, in this case the 2020 NEC® by the Ohio Board of Building Standards is critical to keeping pace with safety science. Pursuant to the Ohio Revised Code 3781.12, I am writing on behalf of UL to request that the State of Ohio move forward with the adoption of 2020 NFPA 70 NEC as requested in the petition filed by the Ohio Electrical Coalition.

UL is driven by our global safety Mission- promoting safe living and working environments by the application of safety science and hazard-based safety engineering. Founded in 1894, UL has earned a reputation as a global leader in product safety standards development, testing and certification, especially in the areas of fire and electrical safety, the basis of UL's founding. UL therefore works closely with the electrical installation community to coordinate product safety standardization/certification with the installation safety practice to achieve the most desirable safety outcomes.

In conclusion, UL urges the Ohio Board of Building Standards to ensure the safety of its citizens by adopting the latest electrical safety requirements as represented by the 2020 edition of the NEC®.

Should you have any questions, please contact our representative for Ohio, Tom Lichtenstein, at thomas.r.lichtenstein@ul.com or by phone at (847) 664-2160.

Sincerely,

A handwritten signature in dark ink, reading 'Deborah Jennings-Conner'.

Deborah Jennings-Conner
VP, Regulatory Services

UL LLC
12 Laboratory Drive

Underwriters Laboratories Inc.
333 Pfingsten Road, Northbrook, IL 60062-2096 USA
T: 847.272.8800 / F: 847.272.8129 / W: UL.com



PO Box 13995
Research Triangle Park, NC 27709
T: (919) 549-1603
M: (919) 308-4888
W: ul.com

cc: Tom Lichtenstein Senior Regulatory Engineer



Independent Electrical Contractors of Greater Cincinnati
586 King's Run Dr.
Cincinnati, OH 45232
Ph 513-542-0400
www.iec-cincy.com

March 10, 2022

Regina Henshaw, Executive Secretary
Ohio Board of Building Standards
6606 Tussing Rd.
Reynoldsburg, OH 43068-9009

RE: 2020 National Electrical Code Adoption

Dear Regina,

The Independent Electrical Contractors of Greater Cincinnati request a rule change to update the 2017 edition of NFPA 70 with the 2020 edition of NFPA 70 in accordance with ORC 3781.12.

The 2020 NEC provides numerous changes that will enhance public safety and advance new methods, materials and installation practices. It also includes important changes to rules used for certain calculations which modernize and acknowledge improvements in energy efficiency which may account for and contribute savings in the overall cost of an electrical system.

Living in a strong, technology-driven consumer world that regularly sees advancements, in said technologies, warrants regular and up-to-date standards for implementation to help ensure the safety of the end-user and their property. Updating to the 2020 NEC provides a critical and necessary step towards continued consumer health preservation and evolution of safely implementing technologies in electrical systems.

The NEC is the most widely adopted consensus Code in the world. Consensus is a key word when developing the document. The NFPA provides the document rules and governing procedures that stipulate all NEC changes have had public input and public review. Technical committee membership classifications are used to maintain balanced Code Making Panels that represent their Principal interest to ensure changes are necessary and in the best interest of public safety.

I urge the state of Ohio to adopt the 2020 NEC without delay or modifications to the document.

Sincerely,

Matthew Hittinger

Matthew Hittinger
Executive Director
Independent Electrical Contractors of Greater Cincinnati

March 11, 2022



Ms. Regina Hanshaw
Executive Secretary
Ohio Board of Building Standards
6606 Tussing Road
Reynoldsburg, OH 43068

Re: Schneider Electric Supports the Ohio Electrical Coalition Petition to Adopt the 2020 Edition of the National Electrical Code for the Residential Code of Ohio.

Dear Ms. Hanshaw:

I am writing to inform you of Schneider Electric's support of the Ohio Electrical Coalition Petition to Adopt the 2020 Edition of the National Electrical Code for the Residential Code of Ohio.

As a global specialist in energy management, Schneider Electric offers integrated solutions across multiple market segments, including leadership positions in Utilities & Infrastructures, Industrial & Machine manufacturers, Non-residential buildings, Data Centers & Networks. Focused on making energy safe, reliable, efficient, productive and green, Schneider Electric 750 plus Ohio employees are located in various offices and four manufacturing facilities across the state. We support thousands of additional direct and indirect jobs in Ohio by working with over 400 vendors and suppliers located in the state.

Schneider Electric continues to advocate for timely adoption of the National Electrical Code (NEC). The NEC focuses on the proper installation of electrical systems and equipment which supports safe electrical infrastructure installations further advancing the safe use of electricity. Our products are designed and manufactured to comply with the most current edition of the NEC. Electrical infrastructure that does not utilize the most current electrical code restricts the use of the most current technology and can be less efficient and more costly for not only Schneider Electric to manufacture, but also for the construction industry to implement.

The adoption of the 2020 NEC will permit the construction industry to take advantage of the most cost-effective infrastructure solution and utilize emerging technological advancements while enhancing safety in Residential buildings in the state.

Once again, Schneider Electric urges the OBBS to promptly initiate the review and adoption of the 2020 NEC for the Residential Code of Ohio.

Sincerely,

Don Iverson
Manager of Industry Codes & External Affairs

Schneider Electric
1601 Mercer Rd
Lexington, KY 40511
Tel. (517) 204-0559
www.us.schneider-electric.com

March 15, 2022

Ms. Regina Hanshaw
Executive Secretary
Ohio Board of Building Standards
6606 TUssing Road
Reynoldsburg, OH 43068

Re: Support Adoption of 2020 Edition of the National Electrical Code

Dear Ms. Hanshaw,

I am writing in support of updating the Residential Code of Ohio from the 2017 edition of the National Electrical Code® (NEC) to the 2020 edition of the NEC. For many years, Ohio has been one of the first states to adopt the entire current electrical code on a regular revision schedule, demonstrating that the safety of its citizens and economic well-being of its industry is of utmost importance.

Siemens employs 1,959 people throughout Ohio who, along with their families, would be impacted by this update. There are 21 Siemens locations reporting \$611M in sales last year. Income tax paid to the state exceeds \$450k with employee wages exceeding \$226M.

Updating the National Electric Code® to the current 2020 edition with no amendments would help to keep Ohio residents safe.

Thank you for your consideration on this important issue.

With kind regards,



Ashley Bryant
Senior Product Manager, Electronic Circuit Breakers
Siemens Industry, Inc.
3617 Parkway Lane
Peachtree Corners, GA 30092, USA
Tel.: +1 404 697-1587
<mailto:ashley.bryant@siemens.com>



National Electrical Manufacturers Association

The association of electrical equipment
and medical imaging manufacturers
www.nema.org

March 17, 2022

Ms. Regina Hanshaw
Executive Secretary
Ohio Board of Building Standards
6606 Tussing Road
Reynoldsburg, OH 43068

Re: NEMA Supports Adoption of 2020 Edition of the National Electrical Code

Dear Ms. Hanshaw:

On behalf of the National Electrical Manufacturers Association (NEMA), I am writing to express support for the update of the Residential Code of Ohio from the 2017 edition of the National Electrical Code® (NEC) to the 2020 edition of the NEC.

As the association representing over 325 electrical and medical imaging manufacturers that make the equipment used in a variety of sectors—electric transmission and distribution, commercial and residential buildings, water treatment and delivery, transportation, industrial processes, food, healthcare, agriculture, and manufacturing—NEMA supports regulatory action and programs that efficiently provide affordable, safe, and reliable electricity to the American public. NEMA member companies have a significant presence in the state of Ohio, representing 44 companies with 142 manufacturing and engineering facilities that support the state's economy. Member companies in Ohio collectively employ over 70,077 state residents.

NEMA has long supported timely adoption of the National Electrical Code® (NEC) by state and local jurisdictions. We maintain that prompt adoption of the most current edition of the NEC is the best way to ensure a uniform and up-to-date standard of safety for all occupants in the built environment. Current codes mean safer and more economically prosperous communities.

The NEC focuses on the proper installation of electrical systems and equipment to protect people and property from hazards arising from the use of electricity in the built environment. The code also allows for the safe use of new technologies including electric vehicle charging equipment and distributed generation such as solar photovoltaic panels.

Through adoption of the 2020 NEC, businesses today will be able to take advantage of lower infrastructure start-up and operational costs through new and improved technology. For instance, modernized rules in the 2020 NEC, used for the calculations of improvements in energy efficiency, may provide relief for the overall cost of the electrical system. Additionally, requirements relating to alternative energy continue to stay relevant so as to not become a barrier to the implementation of those technologies as they evolve.

National Electrical Manufacturers Association
1300 North 17th Street, Suite 900 - Rosslyn, VA 22209

Once again, NEMA urges the Ohio Board of Building Standards to maintain this tradition of excellence by adopting the 2020 edition of the NEC. If you have any questions, please contact Tim McClintock at Tim.McClintock@nema.org or (303) 749-9782.

Sincerely,

A handwritten signature in black ink, appearing to read 'Todd Sims', with a stylized flourish at the end.

Todd Sims
Director, Government Relations
National Electrical Manufacturers Association



March 18, 2022

Ms. Regina Hanshaw
Executive Secretary
Ohio Board of Building Standards
6606 Tussing Road
Reynoldsburg, OH 43068

Re: Eaton Supports Ohio Electrical Coalition Petition to update the 2017 edition of the National Fire Protection Association (NFPA) 70 with the 2020 edition of NFPA 70.

Dear Ms. Hanshaw:

I am writing to express Eaton's support of the State of Ohio to update the 2017 edition of NFPA 70 with the 2020 edition of NFPA 70.

Eaton employs over 1,300 associates at 5 locations in the State of Ohio and spends over \$350 million with Ohio-based businesses every year. Eaton's electrical business is a global leader with expertise in power distribution and circuit protection; backup power protection; control and automation; lighting and security; structural solutions and wiring devices; solutions for harsh and hazardous environments; and engineering services.

For many years, Ohio has championed the standard of excellence by being one of the first states in the nation to adopt the newest edition of the National Electrical Code® - putting the safety of its citizens and economic well-being of its industry first. Updating NFPA 70 makes sure communities continue to provide an acceptable level of public safety while supporting the latest technological advances, which is core to the Ohio Board of Building Standards (OBBS) mission.

Eaton has long supported timely and un-amended adoption of the National Electrical Code® (NEC) by state and local jurisdictions. We believe that adoption of the most current edition of the NEC® promotes a uniform and up-to-date standard of safety for all occupants in the built environment. Current codes produce safer and more economically prosperous communities.

Once again, Eaton urges the OBBS to maintain this tradition of excellence by adopting the 2020 edition of NFPA 70.

If you have any questions, please contact me at (636) 515-6083. Thank you for your time and consideration of this important matter.

Sincerely,

Kevin S. Arnold, P.E.
Manager of Codes & Standards