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## Groups at odds over new circuit code

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### Updated code calls for arc fault circuit interrupters.

Debate is about to go public on a building requirement aimed at making new homes in Ohio safer from the threat of electrical fires.

The new rules, part of the 2008 National Electrical Code, which Ohio automatically adopts, require a special circuit breaker -- called an arc fault circuit interrupter, or AFCI -- on circuits for bedrooms, living rooms, sunrooms and other areas where families gather or sleep.

The previous code required an AFCI only on bedroom circuits.

On one side is the Ohio Home Builders Association, which recently asked state officials to put the code adoption on hold. On the other side are electrical inspectors, electrical manufacturers and fire-prevention advocates who argue that the AFCIs are needed for safety.

The builders say that the new breakers could add \$1,000 or more to the cost of a 2,000-square-foot home. The group also argues that the new devices are relatively untested and unproven, having been put into use in two states only recently.

The builders association also objects that public hearings weren't held about the new code, said Vince Squillace, executive vice president.

"There are a lot of issues as to the worthiness of the devices," Squillace said. "The statewide residential code is very new; it's a new initiative of the legislature and has been undergoing some growth pains. We're saying let's go back and do it as it should be done, according to Ohio law."

In response, the Ohio chapter of the International Association of Electrical Inspectors has prepared an impact study showing that adopting the new code would cost far less than the builders group projects -- \$241.36 for a 2,100-square-foot home.

The difference between the two estimates springs largely from the number of breakers installed, said representatives of the electrical inspectors and the National Electrical Manufacturers Association.

"Probably the most important thing to recognize is that the (electrical inspectors') cost-impact study is based on minimum national electric-code requirements," said Tim McClintock, secretary/treasurer of the Ohio chapter of the International Association of Electrical Inspectors.

"It's purely an option to wire above the minimum option. I've seen the petition . . . (the builders association) filed with the Ohio Building Board, and they're talking about 15 or 17 circuits, which is well above minimum code."



Jeffrey A. Fecteau, National Electrical Manufacturers Association Midwest field representative, said that because electricians are installing the extra capacity, the additional AFCIs would raise costs.

"If they replaced all 15 circuits, it would drive up the cost of a house by \$800," Fecteau said.

"What we've been trying to explain to contractors is that they can do the code minimum and then mark the rest as an upgrade."

Then, because the additional circuits are upgrades, Fecteau said, builders could pass along the cost to home buyers rather than having to shoulder it themselves.

The breakers are designed to reduce electrical fires.

During the past decade, faulty electrical wiring has been one of the leading causes of fire deaths in the nation, claiming 350 lives a year, according to the Consumer Product Safety Commission. More than 40,000 fires a year are caused by problems with home wiring, the commission reports, causing more than \$650 million worth of damage.

The AFCI is able to provide more protection than a standard circuit breaker by detecting "arc fault," which can occur when damaged wiring or overheated or worn electrical cords come in contact with vibrating metal or damaged electrical appliances.

The high heat from arc faults -- sometimes exceeding 10,000 degrees -- can ignite surrounding material, such as wood framing or insulation.

An AFCI will "trip" or shut down a circuit when it detects a problem, preventing a fire from starting.

While all new homes will feature AFCIs under the code, older homes can be retrofitted with the device, too, and such installation is being recommended by the National Fire Protection Association.

The association -- made up of fire marshals, inspectors and other fire-prevention advocates -- considers the new breaker an important safety device in the home, akin to smoke detectors.

Public hearings by Ohio's Board of Building Standards are expected to take place in April, after Gov. Ted Strickland signs an order delaying the new codes.

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