

# Public Code Change Proposal Form

To Amend the 2018 Illinois Energy Conservation Code

Code Section: New C405.2.1.4

| Office Use Only          |         |
|--------------------------|---------|
| Proposal Number:         | C09-1   |
| Date Submittal Received: | 5-06-18 |

Date: March 28, 2018  
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## Related Sections Impacted by this Amendment:

New Section: **Section C405.2.1.4 Occupant sensor control function for egress illumination**

## Revise as Follow (in strike-thru / underline format):

**Section C405.2.1.4 Occupant sensor control function for egress illumination.** In new buildings, luminaires providing means of egress illumination required by Section 1008.2 of the International Building Code, including luminaires that function as both normal and emergency means of egress illumination shall be controlled by a combination of listed emergency relay and occupancy sensors, or signal from another building control system, that automatically shuts off the lighting when the areas served by that illumination are unoccupied. Lighting controls shall be capable of and configured to turn means of egress lighting on in the event of power supply or control failure.

### Exceptions:

1. Means of egress illumination that does not exceed the minimum required footcandles as listed in Section 1008.2.1 of the International Building Code.
2. Illumination installed at the walkway surface of auditoriums, theaters, concert or opera halls and similar assembly occupancies.
3. Emergency lighting designated to meet Section 1008.3 of the International Building Code.

## Reason:

Egress lighting has historically been exempted from control requirements in the code. This results in significant portions of the lighting in the building being uncontrolled and even continuously on. It is a significant use of energy and it does not enhance life-safety since it can result in providing more lighting than necessary during nonemergency situations.

The proposal specifically requires occupancy controls for egress lighting. Minimum egress lighting provisions in the International Building Code do not require nearly the light levels needed for typical use. So simply keeping general illumination on all the time results in a significant energy waste without an enhancement to protection of life-safety. Advancements in occupancy control requirements and improvements in the acceptance testing requirements of the code have made occupancy control along the egress path a viable option. Additionally, this proposal requires that the lighting be reduced to the levels required for egress, not turned off. Therefore, even

in the case of occupancy control failure, there is no risk to life safety since light can always be left on to minimum levels required for egress. This will also ensure that photo-luminescent strips (if utilized) remain charged at all times. The requirement includes an exception for egress lighting that does not exceed .02 W/sf. This is the LPD level that will generally result in lighting that meets the egress requirements of IBC without providing general use lighting. It is also the level of lighting needed to keep luminescent lighting strips charged. This ensures that low power, egress-specific lighting systems and solutions are not subject to this requirement. Note that this requirement is part of ASHRAE Standard 90.1-2016. This proposal was also developed with input from members from the Illuminating Engineers Society of North America and New York State fire officials.

**Cost Impact:**

This proposal will increase the cost of construction but will result in energy savings by reducing the lighting levels as egress lighting is often on at full power at all times. Cost vary by building type and are difficult to assess except on a case-by-case basis. Incremental costs for the occupancy control of a single space can be as low as \$20 per control. Controlling this load is one way for the code to meet its goal of effectively conserving scarce energy resources.

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A proponent shall not submit multiple amendments to the same code section. When a proponent submits multiple amendments to the same section, the proposals shall be considered as incomplete proposals. The proponent of the proposal shall be notified and the proposal shall be held until the deficiencies are corrected, with a final date set for receipt of a corrected submittal. If the corrected amendment is received after the final date, the proposal shall not be considered by the ILECAC. This restriction shall not apply to amendments that attempt to address differing subject matter within a code section.