

GG163-14

408.3

Proponent: Amy Dickie, representing Global Cool Cities Alliance (amy@globalcoolcities.org)

Revise as follows:

408.3 Roof surfaces. Not less than 75 percent of the roof surfaces of buildings and covered parking located in climate zones ~~1 through 3~~, 1, 2, 3, 4a and 4b, as established in the *International Energy Conservation Code*, shall be a roof complying with Section 408.3.1; shall be covered with a vegetative roof complying with Section 408.3.2; or a combination of these requirements. The provisions of this section shall apply to roofs of structures providing shade to parking in accordance with Section 408.2.2 where located in climate zones 1 through 6.

Exception: Portions of roof surfaces occupied by the following shall be permitted to be deducted from the roof surface area required to comply with this section:

1. Solar thermal collectors.
2. Solar photovoltaic systems.
3. Roof penetrations and associated equipment.
4. Portions of the roof used to capture heat for building energy technologies.
5. Rooftop decks and rooftop walkways.

Reason: This proposal modifies Section 408.3 of Chapter 4 of the International Green Construction Code (IgCC) to expand the roof surfaces requirement to climate zones 4a and 4b. IgCC is a code which provides building construction and operations which should be more sustainable than buildings constructed under the IECC, IBC, IMC or IPC alone. Therefore, the roof surfaces requirements and should go above and beyond those required in the IECC and should take into account the urban heat island reduction benefits provided by both vegetative roofs and reflective roofs. Both vegetative roofs and reflective roofs have been proven to provide a number of benefits in climate zones 4a and 4b.

- Switching to reflective roofs across climate zones 4a and 4b generates net energy savings and net energy cost savings.
- Reflective roofs help reduce peak energy load in IECC climate zones 4a and 4b.
- The benefits of reflective roofs have been proven beneficial in major metropolitan areas within climate zones 4a and 4b. Several major cities in climate zone 4 have adopted the use of reflective roofs on commercial, low-sloped roofs into law.
- Reflective roofs provide a cooler environment for roof equipment, thus enabling better performance for rooftop equipment.
- In most cases roof construction can have a reflective roof option with zero price premium.
- Reflective roofs and vegetative roofs have many important benefits beyond building energy. Both reflective and vegetative roofs reduce the summer air temperature in cities and therefore improve resiliency of urban populations to heat events. Vegetative roofs help control storm water run-off.

Cost Impact: Will not increase the cost of construction.

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