

## EC68-09/10 Part I & Part II

### EECC Requested Final Action: Approved as Modified by the Public Comment

#### EECC Reason Statement:

*EC68 should be approved as modified by this public comment.*

The proposed modifications are intended to reflect the modification approved by the IECC Committee, as well as clarify that these requirements apply only to sunrooms enclosing conditioned space. While this final clarification may already be apparent from current code language, this clarification will help to ensure consistent and correct application of the requirements.

This proposal should be approved to clarify the application of the energy code only to sunrooms that enclose conditioned space and to increase the energy efficiency of such sunrooms as described in the original reason statement.

#### EECC Proposed Modification to Original Proposal:

##### Part I – IECC (further modify proposal that was approved as modified by the Committee as follows):

**402.2.11 Sunroom insulation.** All *sunrooms enclosing conditioned space* shall meet the insulation requirements of this code.

**Exception:** For sunrooms with *thermal isolation and enclosing conditioned space*, the following exceptions to the insulation requirements of this code shall apply: (1) The minimum ceiling insulation R-values shall be R-19 in Zones 1 through 4 and R-24 in Zones 5 through 8; and (2) The minimum wall R-value shall be R-13 in all zones. New wall(s) separating a *sunroom with thermal isolation* from *conditioned space* shall meet the *building thermal envelope* requirements of this code.

**402.3.5 Sunroom U-factor.** All *sunrooms enclosing conditioned space* shall meet the fenestration requirements of this code.

**Exception:** For *sunrooms with thermal isolation and enclosing conditioned space* in Zones 4 through 8 the following exceptions to the fenestration requirements of this code shall apply: (1) the maximum fenestration U-factor shall be 0.45; and (2) the maximum skylight U-factor shall be 0.70. New fenestration separating the *sunroom with thermal isolation* from *conditioned space* shall meet the *building thermal envelope* requirements of this code.

##### Part II – IRC (modify original proposal as follows):

**N1102.2.11 ~~Thermally isolated~~ Sunroom insulation.** All *sunrooms enclosing conditioned space* shall meet the insulation requirements of this code.

**Exception:** For sunrooms with *thermal isolation and enclosing conditioned space*, the following exceptions to the *insulation requirements* of this code shall apply: (1) The minimum ceiling insulation R-values shall be R-~~19~~<sup>24</sup> in Zones 1 through 4 and R-~~24~~<sup>30</sup> in Zones 5 through 8; and (2) The minimum wall R-value shall be R-13 in all zones. New wall(s) separating a sunroom with *thermal isolation* from *conditioned space* shall meet the *building thermal envelope* requirements of this code.

**N1102.3.5 ~~Thermally isolated~~ Sunroom U-factor.** All *sunrooms enclosing conditioned space* shall meet the fenestration requirements of this code.

**Exception:** For *sunrooms* with *thermal isolation and enclosing conditioned space* in Zones 4 through 8 the following exceptions to the fenestration requirements of this code shall apply: (1) the maximum fenestration U-factor shall be 0.45; and (2) the maximum skylight U-factor shall be 0.70. New fenestration separating the *sunroom* with *thermal isolation* from *conditioned space* shall meet the *building thermal envelope* requirements of this code.

## **Proposal History:**

### **Committee Recommended Action on Original Proposal at Public Hearing:**

#### **Part I IECC – Approved as Modified**

##### **Modification to Proposal:**

**402.2.11 Thermally isolated Sunroom insulation.** All *sunrooms* shall meet the insulation requirements of this code.

**Exception:** For *sunrooms* with *thermal isolation*, the following exceptions to the insulation *requirements* of this code shall apply: (1) The minimum ceiling insulation R-values shall be R-19~~24~~ in Zones 1 through 4 and R-24~~30~~ in Zones 5 through 8; and (2) The minimum wall R-value shall be R-13 in all zones. New wall(s) separating a *sunroom* with *thermal isolation* from *conditioned space* shall meet the *building thermal envelope* requirements of this code.

**402.3.5 Thermally isolated Sunroom U-factor.** All sunrooms shall meet the fenestration requirements of this code.

**Exception:** For *sunrooms* with *thermal isolation* in Zones 4 through 8, the following exceptions to the fenestration requirements of this code shall apply: (1) the maximum fenestration U-factor shall be 0.50~~0.45~~; and (2) the maximum skylight U-factor shall be 0.70~~0.5~~. New fenestration separating the *sunroom* with *thermal isolation* from *conditioned space* shall meet the *building thermal envelope* requirements of this code.

#### **Part II IRC – Disapproved**

### **Committee Reason(s) for Recommended Action:**

**Part I IECC –** The code change revises the language to accurately reflect the code requirements and therefore eliminate confusion. The modification revises the R values in the exception back to the present code values.

**Part II IRC –** The proposal raises the R values for thermally isolated sunrooms without any cost justification, or technical justification. For thermally isolated sunrooms the committee questions whether raising R-values would have a significant impact on energy usage.

**Initial Recommendation of EECC:** Approval

## **Initial Proposal for Reference:**

## **EC68–09/10**

**402.2.11, 402.3.5; IRC N1102.2.11, N1102.3.5**

**Proponent:** Bill Prindle, ICF International, representing the Energy Efficient Codes Coalition; Jeff Harris, Alliance to Save Energy; Harry Misuriello, American Council for an Energy-Efficient Economy (ACEEE); Garrett Stone, Brickfield, Burchette, Ritts & Stone; Steve Rosenstock, Edison Electric Institute; Brian Dean, ICF International

**THIS IS A 2 PART CODE CHANGE. PART I WILL BE HEARD BY THE IECC COMMITTEE. PART II WILL BE HEARD BY THE IRC BUILDING/ENERGY COMMITTEE. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.**

**PART I – IECC**

Revise as follows:

**402.2.11 Thermally isolated sunroom insulation.** All sunrooms shall meet the insulation requirements of this code.

**Exception:** For sunrooms with thermal isolation, the following exceptions to the insulation requirements of this code shall apply: (1) The minimum ceiling insulation R-values shall be R-~~19~~24 in Zones 1 through 4 and R-~~24~~30 in Zones 5 through 8; and (2) The minimum wall R-value shall be R-13 in all zones. New wall(s) separating a sunroom with thermal isolation from conditioned space shall meet the building thermal envelope requirements of this code.

**402.3.5 Thermally isolated sunroom U-factor.** All sunrooms shall meet the fenestration requirements of this code.

**Exception:** For sunrooms with thermal isolation in Zones 4 through 8, the following exceptions to the fenestration requirements of this code shall apply: (1) the maximum fenestration U-factor shall be ~~0.50~~ 0.45; and (2) the maximum skylight U-factor shall be ~~0.70~~0.5. New ~~windows and doors~~ fenestration separating the sunroom with thermal isolation from conditioned space shall meet the building thermal envelope requirements of this code.

**PART II – IRC BUILDING/ENERGY**

Revise as follows:

**N1102.2.11 Thermally isolated sunroom insulation.** All sunrooms shall meet the insulation requirements of this code.

**Exception:** For sunrooms with thermal isolation, the following exceptions to the insulation requirements of this code shall apply: (1) The minimum ceiling insulation R-values shall be R-~~19~~24 in Zones 1 through 4 and R-~~24~~30 in Zones 5 through 8; and (2) The minimum wall R-value shall be R-13 in all zones. New wall(s) separating a sunroom with thermal isolation from conditioned space shall meet the building thermal envelope requirements of this code.

**N1102.3.5 Thermally isolated sunroom U-factor.** All sunrooms shall meet the fenestration requirements of this code.

**Exception:** For sunrooms with thermal isolation in Zones 4 through 8, the following exceptions to the fenestration requirements of this code shall apply: (1) the maximum fenestration U-factor shall be ~~0.50~~ 0.45; and (2) the maximum skylight U-factor shall be ~~0.70~~0.5. New ~~windows and doors~~ fenestration separating the sunroom with thermal isolation from conditioned space shall meet the building thermal envelope requirements of this code.

**Reason:** This proposal editorially clarifies that the requirements for thermally isolated sunrooms in these sections are exceptions and only apply to sunrooms that have thermal isolation and that all other sunrooms must comply with all of the requirements of the code. The proposal also tightens the requirements in the exceptions. It is reasonable to require some improvement in sunrooms with thermal isolation, particularly given the amount of glass and the relatively minimal current requirements.

**Cost Impact:** The code change proposal will increase the cost of construction.

**PART I – IECC**

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

**PART II – IRC BUILDING/ENERGY**

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

ICCFILENAME: PRINDLE-EC-18-402.2.11-N1102.2.11