

**INTERPRETATION IC 90.1-2001-3 OF  
ANSI/ASHRAE/IESNA STANDARD 90.1-2001  
Energy Standard for Buildings Except Low-Rise Residential Buildings**

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**Request from:** Mr. Chris Jones (e-mail: <mailto:cjones@islandnet.com>), 14 Oneida Avenue, Toronto, Ontario M5J 2E3. ASHRAE Member 5068556.

**Reference:** This request for interpretation refers to the requirements presented in ANSI/ASHRAE/IESNA Standard 90.1-2001, Section 11.4.2(c), relating to budget building envelope model glazing characteristics.

**Background:** Prescriptive criteria require that the fenestration U-value and solar heat gain coefficient values are set based on the fenestration to wall ratio. 11.4.2(c) states “Fenestration U-factor shall be the minimum required for the climate, and the solar heat gain coefficient shall be the maximum allowed for the climate and orientation.” This statement seems to imply that the budget building model should use the lowest U-factor and the highest solar heat gain coefficient; not based on fenestration to wall ratio.

**Interpretation:** I have interpreted this section to mean that the budget building envelope model fenestration U-value and solar heat gain coefficient be set based on the fenestration percentage taken from the budget building envelope model. For example, from Table B-18, 35% fenestration percentage, non-residential building with fixed windows, I would set the U-factor at 0.57 and the SHGC at 0.49 all faces.

**Question:** Is this interpretation correct?

**Answer:** Yes

**Comments:** Your interpretation is still based on fenestration percentage. You enter the row based on the percentage you have and use the respective U-factor and SHGC. Please note that if the North-Oriented face had a different SHGC, you would use that value for the north fenestration.