

**BEFORE THE NEVADA ENERGY COMMISSIONER**  
**COMMENT/REPLY COMMENT INFORMATION FORM**

Rulemaking to adopt, amend, or repeal )  
regulations pertaining to Chapter 701 )  
of the Nevada Administrative Code related )  
to the conservation of energy in buildings, )  
including manufactured homes, adoption )  
of 2009 IECC pursuant to Nevada Revised )  
Statutes 701.220. )  
\_\_\_\_\_ )

**RECEIVED**

OCT 18 2010

RENEWABLE ENERGY AUTHORITY  
CARSON CITY, NV

Please complete the following information and submit this form along with your comments<sup>1</sup>:

Date of Filing: October 18, 2010

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Do you wish to be placed on the email service list for this matter to receive any further notices? (Mark One)

Yes  No

**Note: Submitted comments are part of the public record for the rulemaking and may be posted on the web.**

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<sup>1</sup> Please refrain from making any changes to this form. Thank you.

## **COMMENTS:**

I am in support of the adoption and implementation of the 2009 IECC. However, in its present form, the Residential Energy Efficiency SHGC requirements for Clark County (Climate Zone 3B) seriously hinder the adoption of passive solar heating strategies.

For climate zone 3B (Clark County), Table 402.1.1 requires that the glazed fenestration SHGC be limited to a maximum of 0.3. Such low SHGC value fails to address the fact that Clark County residential buildings experience both heating and cooling loads. A SHGC of 0.3 makes the use of passive solar heating strategies impractical and may result in increased energy consumption during the winter time.

While section 402.3.2 (glazed fenestration SHGC) allows for an area-weighted average of fenestration products more than 50 percent glazed to satisfy the SHGC requirements, it further impairs the use of passive solar heating, as a winter SHGC greater than 0.5 would be required in fenestration dedicated to the collection of winter solar energy. For example, to take advantage of passive solar during the winter time, a 2,000 ft<sup>2</sup> detached house would need between 180 and 360 ft<sup>2</sup> of south facing glazing with a winter SHGC of at least 0.55. Assuming that the home has 40% of its glazing facing south, the non-south glazing would have to have a SHGC of less than 0.2 to meet the requirements of section 402.3.2

My recommendation would be to modify the SHGC requirements and accept either:

1. A different SHGC for those windows with an orientation within 30° East or West of Solar South;
2. To accept a higher SHGC value when external fixed shading devices are documented in the project. In fact, the commercial portion of the 2009 IECC accepts in section 502.3.2 the use of different SHGC values based on the calculation of a "window projection factor."

If further clarification/information on this comment is needed, please do not hesitate to contact me.