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California Energy Commission
Attention: **Docket No. 12-BSTD-1**
Dockets Office
1516 Ninth Street, MS-4
Sacramento, CA 95814

DOCKET	
12-BSTD-1	
DATE	APR. 09 2012
RECD.	APR. 10 2012

Dear California Energy Commission,

California Skylights Company is happy for the opportunity to comment on the 45-Day Language Express Terms proposed amended standards. We install skylights and replace old skylights on residential and commercial structures in the Los Angeles County. We feel that based on your proposal to change the requirements of the U-factor for **skylights to a .32** will greatly reduce the use of overhead glazing on future construction and reduce the replacement of old inefficient skylights on existing structures.

Daylighting through the roof is the most efficient way to light any space if done properly. We at California Skylights have been teaching our customers the benefits of proper daylighting for over 20 years. It has been studied and proven that daylighting through the roof brings in more than twice the light to a structure than light through vertical windows. With that said, the vertical wall glazing can be reduced and the overhead glazing to replace it can be half the size and yet achieve improved lighting to the core of the structure. If the overall glazing of the structure envelope is reduced with this practice then significant heating and cooling energy savings can be achieved, thus a more energy efficient design. Your proposal would cause designers to use less overhead glazing thus more vertical glazing resulting in a less efficient building envelope.

I have not yet touched on the other obvious benefits that skylights offer like **reduced electric usage for lighting**, reduced electric usage for **ventilation**. Exchanging the stale polluted air in a home with fresh air via operable skylights is called the **chimney effect** or **stack effect**. Good natural ventilation in a home or office counts for Health and Wellness credits when achieving LEED scores.

California residents have embraced skylights for decades and more recently tubular daylighting devices. There are thousands of old acrylic skylights in Los Angeles County. There are residents who might want to replace their old acrylic skylights with current glass skylights with an average U-factor double or even triple what the old acrylic offered. With your proposal they have very few options.

- 1) you can use a non-standard, very expensive and heavy triple-glazed sealed glass skylight
- 2) you can put an expensive opaque roof assembly in the rough opening and hope it doesn't leak at the seams,
- 3) you will just have to continue to waste lots of energy, pay the higher bills, and live with the leaks and the mold issues with your current old acrylic skylight.

The proposed 0.32 U-factor and .25 SHGC for Skylights excludes most of the known technologies currently employed by Energy Star compliant skylights, leaving consumers with no reasonable alternative to replace inefficient skylights or those past their usable life. **-In order for this to happen, we need an EXCEPTION to Section 150.2(b)1B allowing skylights that meet current Energy Star requirements to be used to replace outdated, inefficient skylights.**

In new dwellings, the proposed code language would require a U-factor of .32 and a SHGC of .25 to comply with the prescriptive path for compliance. Homes with skylights not meeting this standard will require whole house energy calculations and additional costs associated with upgrading other building systems to "offset" the non-compliant skylights. This places an unnecessary burden on builders and homeowners wishing to incorporate skylights into their designs. The California Energy Commission needs to incorporate skylight specific standards into the code based on using the ENERGY STAR qualifying criteria for skylights.

By recognizing the already robust standards expressed within Energy Star (U-Factor .55 / SHGC .30) the code will allow affordable, readily available products that will greatly reduce energy use and increase indoor comfort.

I respectfully request that you not pass this new Proposed Energy Standard until further investigation has been undertaken and you more clearly understand daylighting through the roof.

With kind regards,
BRIAN MCQUADE
SUNBURST SKYLIGHT CO.
805-492-1788

Please feel free to modify this in anyway you see fit. Make sure that you post this in the Subject line at the top of your email or they wont accept it: **Docket No. 12-BSTD-1**

Send the e-mail to: **ryasny@energy.ca.gov** and to: mshirakh@energy.ca.gov