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From: naper.carhart [mailto:carhart@core.com]

Sent: Friday, August 29, 2008 9:39 PM

To: ssl@energystar.gov

Subject: Energy Star standards for street lights

Hello;

As an American citizen who is very concerned with the wasteful use of energy in our nation, and with the environment, I'd like to commend your group on considering issuing Energy Star standards for LED street light luminaries.

What needs to be done eventually, hopefully sooner rather than later, is to go further yet in this area. I have long thought it absurd that my washing machine, which runs 3 or 4 hours per week, is Energy Star rated, while the street light outside my house, which runs an average of 12+ hours per night, every night, faced no energy efficiency rating at all. (That street light has a 400W high pressure sodium lamp in it; with ballast, that's 464 watts.)

All types of street light luminaries should be rated for energy efficiency. And, the rating should not be by total lamp output (lumens) per watt consumed, but by how efficiently the fixture illuminates the target area; in other words, how many watts does it take to illuminate each square foot of the area which the fixture is designed to light up? This is the only way to judge energy efficiency; any light shining where it isn't intended, or which is absorbed internally by poorly-engineered fixtures, is a direct waste of energy.

And, the International Dark-Sky Association's standard of "no light above 90°", while it is better than no standard at all, is terribly lacking, as far as energy efficiency is concerned. Very, very few lighting installations need light shining outward at angles as high as 80° above vertical (0° being straight down) to operate effectively. Often, with lights mounted as high as street lamps are (12'+), any light above 60° above vertical is pure waste, and ends up being glare, trespass, or other nuisance light. While dark skies is a noble cause, energy efficiency is much more urgent; when fixtures made are efficient, dark skies will be a happy by-product. Some manufacturers are already marketing highly efficient, focused fixtures, while others are still selling ones designed over sixty years ago; there will be no pressure to change unless efficiency is rated in a way which the consumer can understand.

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