



January 30, 2022

BY EMAIL

Celia Meza, General Corporation Counsel
Chicago, Illinois
celia.meza@cityofchicago.org

Re: The LED Fraud

Dear Celia Meza,

Utility and lighting companies have made the fraudulent claim that LEDs are energy efficient. By committing this fraud, these companies have convinced cities across America to switch to LED streetlights with the promise of saving energy. LEDs do not save energy; instead, they emit a toxic, hazardous, discriminatory substance that is making Americans agitated and angry, and causing epileptic seizures, migraines, panic attacks and eye damage.

The US Department of Energy defines energy efficiency as, “using less energy to get the same job done”.¹ The job for streetlighting is to provide uniform illumination. The left side of Figure 1 shows a spherical emitter such as incandescent or High-Pressure Sodium which provides the job of uniform illumination. The middle drawing of Figure 1 shows a theoretical emitter that provides uniform illumination only in the forward direction. This theoretical emitter is not an LED! The right side of Figure 1 shows the overlapping light cones from a flat surface LED that creates a spatially non-uniform shape which is not uniform illumination. **Since an LED does not get the same job done as HPS, an energy efficiency comparison cannot be made between HPS and LED. LEDs do not “save” energy.**

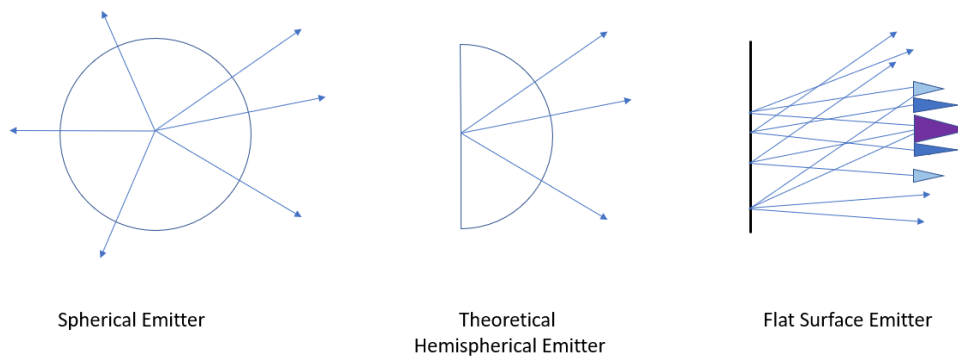


Figure 1 - The Theoretical Emitter

¹ https://www.energystar.gov/about/about_energy_efficiency

Our confidence in stating that LEDs do not save energy is based on the pioneering work of Dr. Nisa Khan, author of *Understanding LED Illumination* and the first person to develop the mathematical calculus for a flat surface emitter.²

The city of Chicago claims that LEDs are “energy-efficient”³ as shown in Figure 2. This statement is fraudulent, as explained above. Chicago also claims that LED lights increase safety, reduce energy costs, and improve the environment. All of these are false claims. The Federal Trade Commission prohibits such fraudulent and deceptive claims.⁴

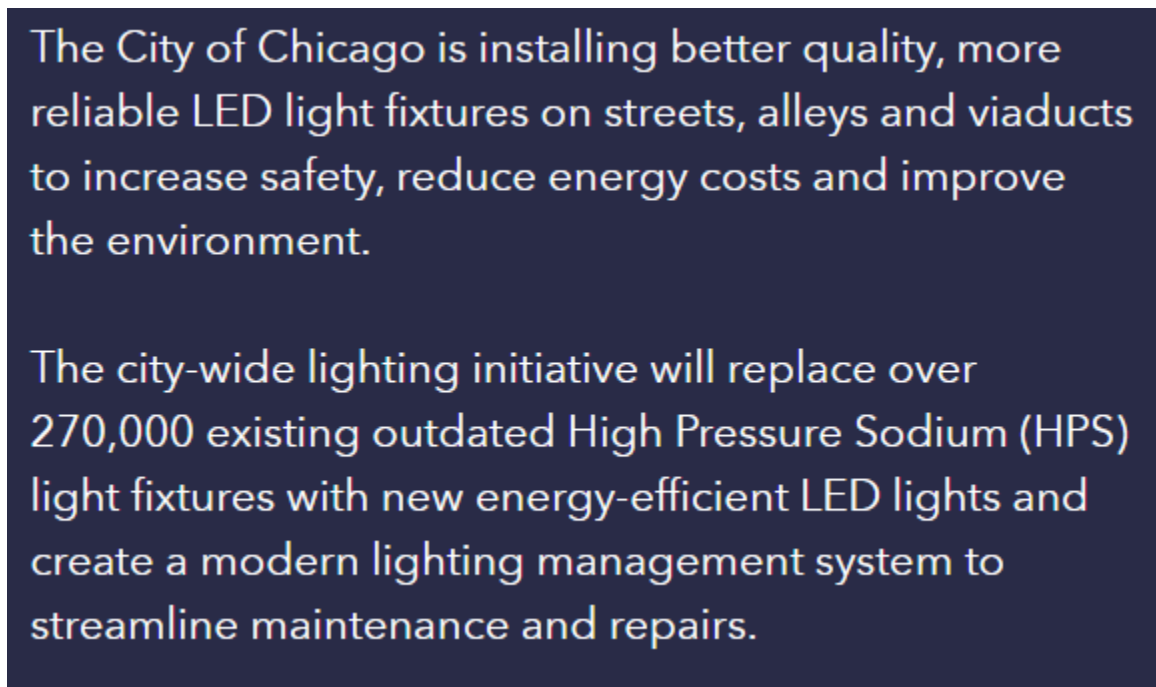


Figure 2 - Fraudulent Claim

If Chicago is making these claims on their own, then Chicago is liable for the economic, environmental, and human damage caused by LEDs. However, if these claims are based on the information provided by the utility or lighting companies, then Chicago can hold the companies liable.

We are including our report titled, The LED Fraud which contains more details and references to source material. Additionally, we are providing reports of how LED light beams are causing injury to people. To protect itself from liability claims and from FTC prosecution, Chicago must clearly notify the public that LEDs are toxic, hazardous, and discriminatory, and do not save energy.

² <https://ieeexplore.ieee.org/document/8879542>

³ <https://chicagosmartlighting-chicago.opendata.arcgis.com/>

⁴ <https://www.ftc.gov/about-ftc/what-we-do>

Sincerely,

Mark Baker

Mark Baker

President

Soft Lights Foundation

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