



February 1, 2022

BY EMAIL

Muriel Bowser, Mayor
Washington, DC
eom@dc.gov

Re: The LED Fraud

Dear Muriel Bowser,

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, and very likely contributing to the violence epidemic we are seeing America's cities.

The US Department of Energy defines energy efficiency as, "using less energy to get the same job done".¹ The utility company will point to chart showing that HPS generates 80 lumens per watt while LEDs generate 100 lumens per watt. But that is not "energy efficiency" because HPS generates safe uniform illumination, while LEDs emit a toxic, highly focused beam of light with non-uniform energy which is an entirely different service. The utility company ignores the "get the same job done" part of the definition to perpetuate the fraud that LEDs save energy.

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.**

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

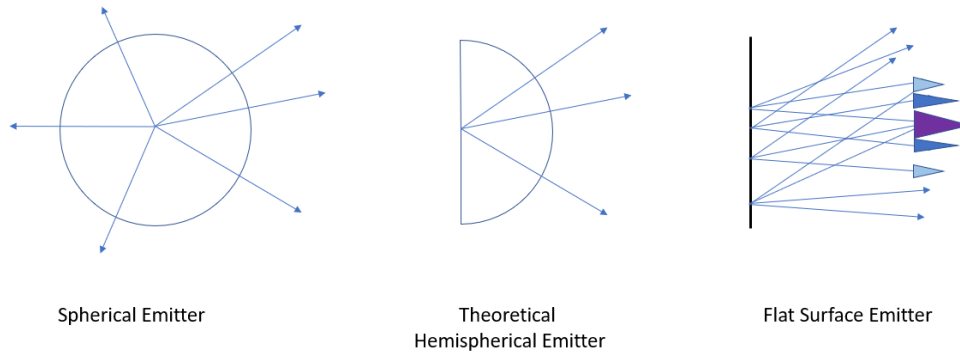


Figure 1 - The Theoretical Emitter

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

Washington, D.C. claims that LEDs are “energy-efficient”³ as shown in Figure 2. This statement is fraudulent, as explained above. The Federal Trade Commission prohibits such fraudulent and deceptive claims.⁴

Mayor Bowser Applauds Council Approval of DC’s First-Ever Public-Private Partnership

Tuesday, February 1, 2022

The DC Smart Street Lighting Project Is the First Advanced Under the Public-Private Partnership Act of 2014, Legislation Written by Then-Councilmember Bowser (Washington, DC) – Today, eight years after then-Councilmember Muriel Bowser introduced the Public-Private Partnership Act of 2014, the Council of the District of Columbia approved a \$309 million contract with Plenary Infrastructure DC (PIDC) to deliver the DC Smart Street Lighting project to convert the District’s streetlights to energy-efficient LED technology. As a public-private partnership (P3), PIDC will finance the project costs, allowing the District to complete the upgrades within two years as well as maximizing long-term energy savings and environmental benefits.

Figure 2 - Fraudulent Claim

If Washington, DC is making these claims on their own, then Washington, DC 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 Washington, DC 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, Washington, DC must immediately stop the LED streetlight conversion project and 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://ddot.dc.gov/release/mayor-bowser-applauds-council-approval-dc%E2%80%99s-first-ever-public-private-partnership>

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

Sincerely,

Mark Baker

Mark Baker

President

Soft Lights Foundation

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