LOS ANGELES COUNTY STREET LIGHTING CONVERSION PROJECT

FREQUENTLY ASKED QUESTIONS (FAQ)

What is LED Lighting?

LED stands for Light Emitting Diode. Traditional lighting sources produce light through a filament that is heated and eventually breaks causing the bulb to burn out. LED produce light when electrons move through a semi-conductor.

What are the benefits of LED Lighting?

LED lighting is rapidly replacing traditional High-Pressure Sodium (HPS) lighting as the standard roadway lighting technology in many municipalities across the nation and the world. This shift in lighting technologies becomes apparent when you compare the two types of lighting.

- Energy Efficiency: LED fixtures provide approximately a 50% energy savings over traditional HPS fixtures resulting in lower energy costs and the reduction of CO2 emissions.

- Maintenance: LED fixtures have a useful life of approximately 15 to 20 years or 4 times longer than traditional HPS bulbs resulting in lower maintenance costs.

- Light Trespass: LED fixtures have the ability to direct light downward and prevent overspill, as is common with traditional HPS fixtures, resulting in the reduction of light trespass onto private property

- Dark Sky Compliance: LED fixtures are dark-sky compliant meaning they cast little to no light above the lamp fixture and prevent overspill, as is common with traditional HPS fixtures, resulting in the reduction of light pollution.

What is the County's plan to convert streetlights to LED lighting?

Prior to 2021, the majority of the 60,000 streetlights located within the unincorporated County communities were owned and operated by Southern California Edison (SCE). Beginning March 2021, Los Angeles County Public Works (Public Works) began acquiring and transferring ownership of approximately 30,000 (or half) of the streetlights from SCE. The remaining 30,000 streetlights are located on utility or jointly owned poles and are not for sale by SCE.

Upon assuming ownership of the streetlights, Public Works will begin replacing existing HPS fixtures with new energy efficient LED fixtures with a color temperature (CT) rating of 2700 Kelvins (K).

Concurrently, Public Works entered into an agreement with SCE to have SCE perform the conversion of the remaining 30,000 streetlights under its ownership. This will ensure there is uniformity and consistency throughout the unincorporated County communities.

The County LED conversion project is expected to conclude in Spring 2023. SCE's conversion project will begin in Spring 2023 and conclude in Fall 2023.

How will the LED conversion project be funded?

Funding for the LED conversion project will come from the County Lighting Maintenance Districts (CLMD) Capital Improvement fund.

How will the energy and maintenance savings from the LED conversion be utilized?

Savings from the LED conversion project will be utilized to invest in other streetlight capital improvements. These improvements may include the replacement of aged or obsolete poles, undergrounding of overhead streetlight conductors, and investment into emerging smart streetlight technologies.

What will happen to the removed HPS fixtures?

HPS fixtures will be disassembled and recycled in a manner that meets the 2016 California Green Building Code.

Will the new LED's be brighter than the HPS fixtures they replace?

No. The new LED fixtures will match existing HPS illumination levels.

Do LED's emit blue light?

Yes, all lighting sources emit a degree of blue light. As general rule of thumb, the higher the color temperature (CT) of an LED fixture the bluer the light. On a CT scale of 1000K to 10000K, Public Works and SCE will be utilizing LED fixtures with a CT of 2700K. For reference, the table below has been provided to compare the CT of different lighting sources:

Lighting Source	Color Temperature (CT)*
Candle	1000K
Incandescent Bulb	2700K
Moonlight	4100K
Daylight	Over 6500K

*Approximate

Will the new LED's reduce illumination on sidewalks?

The minimum illuminance values for sidewalk with LED lighting have improved over HPS lighting. As a result, LED lighting provides better lighting uniformity on sidewalks, which lead to improved visibility and safety. In addition, LED lighting provides full spectrum light for better visual quality (i.e. the ability to distinguish colors).

Will the new LED's increase glare for traveling motorists?

There are two types of glare: Disability Glare and Discomfort Glare

Disability glare occurs when a person's vision is impaired; as is the case when a vehicles' headlights are directed at you. Due to the height of the LED fixtures and improved lighting uniformity and nighttime visibility, LED fixtures will reduce disability glare.

Discomfort glare occurs when a person experiences discomfort from lighting, however, vision is not impaired. The cause of discomfort glare is not well understood and there are currently no reliable metrics for quantifying and/or comparing glare between different types of lighting. This is because discomfort glare affects individuals differently and the underlying causes are unknown.

The fixtures being utilized by the County on the LED conversion project are fully shielded to help minimize and control discomfort glare.

Can the County install glare shielding?

As previously mentioned, LED lighting is directional and is better at minimizing light trespass and overspill compared to traditional HPS fixtures. In addition, the LED fixtures being utilized by the County are fully shielded and will help minimize and control glare. Requests for additional shielding will be considered on a case by case basis.

Will the County install street lighting controls that have dimming capabilities?

Public Works is currently investigating different lighting control functions that can benefit the community and our streetlight operations to include functions that automatically trigger repair requests when a streetlight is out.

Where can we see a demonstration of the LED's the County proposes to install?

An interactive map is provided on the LED Conversion website that allows community members to track the daily progress of the LED conversion. If community member(s) are interested in viewing a demonstration area, they are encouraged to utilize the interactive map to locate and visit the nearest LED installation area and/or community member(s) can be directed by our staff to the nearest LED installation area.

Who do I contact if I have further questions?

For further questions please contact Erick Guzman at eguzman@pw.lacounty.gov or our street lighting hotline at (800) 618-7575.