



## FAQs for San Francisco LED Streetlight Project

Q: Who owns and operates the City's streetlights?

A: The San Francisco Public Utilities Commission (SFPUC), a department of the City and County of San Francisco, owns and operates approximately 60% of the streetlights in the City. PG&E owns and operates the rest, approximately 40%.

Q: Why is San Francisco converting its streetlights to LEDs?

A: The decision to change all of the high pressure sodium (HPS) cobra head streetlights owned by the SFPUC to LEDs was made for a variety of reasons:

- LEDs use less energy;
- LEDs cost less to maintain;
- LEDs will improve lighting for pedestrians, bicyclists and drivers.

Q: Which lights are we converting?

A: For this phase of upgrades, we are converting the HPS cobrahead style lights to LEDs.

Q: Why aren't we doing all of the lights?

A: Once we are done with the HPS cobrahead streetlights, we will move on to more ornamental and antique fixtures.

Q: Who is the manufacturer of the LED fixtures the SFPUC chose?

A: Philips.

Q: What is the model being installed?

A: We are installing the Philips Lumec RoadFocus. The SFPUC has also installed Philips Roadstar LEDs and other, older LED models.

Q: What is the process for installing the LEDs?

A: SFPUC crews will remove the "head" of the existing streetlight and replace it with a new LED fixture, leaving the existing pole and crossarm untouched.

Q: How long with the installation take?

A: Each fixture replacement will require less than 20 minutes.

Q: Are LEDs brighter than the lights they are replacing?

A: We will match existing lighting levels on City streets to prevent over-illumination. We are doing one-to-one replacement with existing fixtures to maintain the existing lighting levels.

Q: Can these new streetlights be controlled remotely?

A: At this time, no. The new LED streetlights do not have a wireless control system and therefore cannot be controlled remotely. SFPUC has studied, piloted and evaluated various wireless control systems over the past several years. However, at this time we are still testing and evaluating remote control features and systems.

Q: How are streetlights turned on and off?

A: Most streetlights have a photocell that senses when daylight is diminished. Others are programmed to turn on and off at set times, based on the season of the year.

Q: How long will it take to convert all of the high pressure sodium cobrahead streetlights?

A: The current plan is to complete the conversion by the end of 2017.

Q: What effect will the construction have on my property?

A: None. Streetlights are located on the sidewalk or a traffic island.

Q: How can I find out if my neighborhood will get the new LEDs?

A: There is an interactive map on our web page at <http://sfgov.maps.arcgis.com/apps/webappviewer/index.html?id=459f32f09d874cd89d151294a85a790b>. The map shows the streetlights that have already been converted, those that are planned to be changed and those which are decorative and not on the current plan for conversion. If your street or residence is not listed, it means that the streetlights are in PG&E's territory. You will need to contact PG&E directly to ascertain if the private utility plans to convert your neighborhood to LEDs.

Q: How much energy will LEDs save?

A: On average, LEDs use 50 percent less energy than the current streetlights.

Q: What is the life span of an LED fixture?

A: Testing by independent laboratories has demonstrated that the life of LED fixtures is more than 100,000 hours (20 years at 2,100 hours/year). We also know from our earlier pilot projects and from other cities that have already converted their streetlights to LEDs, that LEDs last longer, use less energy and cost less to maintain.

Q: What happens to the old bulbs/fixtures?

A: For existing fixtures, removed bulbs and streetlight housings will be recycled.

Q: What is the correlated color temperature (CCT) of the LEDs to be installed in San Francisco?

A: During our outreach, residents expressed a preference for lights with a warmer color temperature. That's why this project will feature LEDs with a CCT of 3,000° Kelvin (K). These LEDs will feature a warmer white light than the LEDs installed by most of the other cities and counties across the US, which feature a CCT range of 4,000-6,000°K. In this regard, San Francisco is approaching its LED streetlight conversion differently than other cities in the country. In fact, for the past few years, San Francisco has only purchased LEDs with a CCT of 3,000°K.

Q: What about light spillover or pollution?

A: The new LED streetlights will significantly reduce light pollution and spillover. Conventional lamp-based technologies emit light in all directions, resulting in a considerable amount of light spilling in unwanted directions. It also spreads the light unevenly across areas, which is wasteful and unnecessary. The light emitted by the new LEDs project is directional. They cast all light downward, with a uniform dispersion pattern and overall minimize light spillover. All LED fixtures will be fully cut off fixtures compliant with the International Dark Sky Association (IDA) recommendation. The City of San Francisco's approach to LED streetlight conversion complies with recommendations made by the American Medical Association and the International Dark Sky Association.

Q: Who made the decision to change to LEDs?

A: The current and previous Mayoral administration, current members of the SF Board of Supervisors, previous members of the SF Board of Supervisors and Commissioners on the SFPUC Commission have all weighed in at various times over the past nine years approving and authorizing our LED conversion program.

Q: Were there extensive studies conducted?

A: Yes. The decision was the result of comprehensive research, numerous pilot initiatives and real-life demonstration projects that took place over a span of more than 10 years.

Q: Was there public input?

A: Yes. For more than 10 years, we have:

- Visited community groups throughout the City;
- Hosted workshops to evaluate LED pilot projects and received feedback;
- Testified at streetlight hearings in front of the Board of Supervisors and at the SFPUC Commission;
- Walked neighborhoods with Supervisors and community leaders to help increase light in darker corridors;
- Created multiple websites;
- Created a GIS tool to visualize and pinpoint which lights will be upgraded;
- Created two informational videos;
- Featured LED streetlights in two Citywide MUNI advertising campaigns;
- Created multiple project fact sheets in English, Spanish and Chinese;
- Highlighted the project through multiple news stories in print, broadcast and social media, including, the *SF Examiner*, *SF Chronicle*, KTVU Channel 2, Facebook, Twitter, and *Currents*, the SFPUC's print and digital newsletter.

Q: What are the characteristics SFPUC seeks in a LED fixture?

A: Our product selection has been guided by multiple requirements such as:

- Commercial availability;
- Adequate illumination to ensure pedestrian and vehicular safety;
- Product durability and reliability;
- Energy efficiency; and
- Cost effectiveness.

Q: What is the cost of the new LEDs?

A: The average price per LED fixture is \$135. Upgrading 12,500 HPS streetlights to LEDs will cost the City approximately \$1.7 million.

Q: Will there be a charge to me for the new LEDs?

A: There will be no direct cost to residents or businesses.

Q: My neighborhood streets are not bright enough at night. How can I get more streetlights installed?

A: Call SF 311 or visit [sf311.org](http://sf311.org) to ask for a "lighting level survey." SFPUC engineers will pick up the request and evaluate the lighting in your neighborhood. If the lighting level is low, they may recommend an increase in wattage or that additional streetlights be installed.

Q: What should I do if a streetlight in my neighborhood is out? How can I get it fixed?

A: Call SF 311 or visit [sf311.org](http://sf311.org) with the approximate address of the light that is out. SFPUC also has a streetlight app that you can use for this. Download the app for iOS or Chrome.