

Street light replacement project customer tool kit

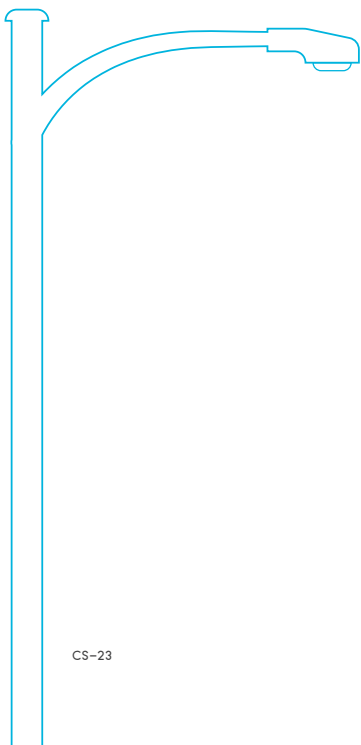
PROJECT OVERVIEW

What is the street light replacement project and why is our community participating?

- Over the next three years, BC Hydro will be replacing high pressure sodium (HPS) street lights in communities across the province with energy-efficient LEDs. This is an important project to meet federal regulations that require all light ballasts containing Poly-Chlorinated Biphenyls (PCBs) be removed by the end of 2025.
- Across Canada, many communities are switching to LED street lights for much the same reason people are using them in homes: They use far less energy, are more reliable, last longer, and are more sustainable.
- LED street lights also help improve public safety by increasing the visibility of sidewalks and roads at night, as well as help reduce light pollution.

When does the project start and how long will it take?

- This project will take BC Hydro two to three years to complete as they must replace lights in communities across the province.
- The project will begin on January 2021 and should complete by May 2021.
- We will be converting approximately 368 lights.



What impacts can I expect on my home or business when the street lights are replaced?

- The installation of LEDs is expected to have minimal impacts on residents and businesses.
- You may notice some short-term lane closures or other traffic control in place when crews are working, but access is not expected to be an issue.

Will the installation of LEDs require an outage to residents and businesses nearby?

- BC Hydro doesn't expect to have to conduct a planned outage during this process.

How long will installation in my neighbourhood take?

- Installation time of lights in each area will vary, depending on conditions. Generally each individual street light should take the installation crew approximately 30 minutes to complete.
- We are coordinating with BC Hydro to ensure minimal impact to our municipality's projects and traffic.

Will my street be dark during the installation?

- No, the existing lights will be kept in place until the LED lights are installed and ready to be turned on. In some cases, a combination of the new LED street lights and the current street lights may be in place overnight until installation is complete.

Who is doing the installation?

- BC Hydro and experienced contractors will be conducting the installations across the province.
- BC Hydro works closely with their contractors to ensure safety of their crews and the public is a top priority.
- The contractor in our region will be n/a - BC Hydro crews .

LET'S TALK LIGHTS

What are LED lights?

- LED stands for Light Emitting Diode. Traditional lighting sources produce light through a filament that eventually burns out. LEDs produce light when electrons move through a semi-conductor.

What is the difference between wattage and a kelvin?

- Wattage (W) measures the light's energy consumption.
- Kelvin (K) is a temperature scale for the colour of light.

What are the benefits of LED street lights?

- They consume about 50% less energy than the current high pressure sodium lights.
- Require less maintenance as they have a life span of up to 20 years.
- They also help reduce our carbon footprint.

How are LED street lights different than the ones we have now?

They are different from the current street lights in several ways:

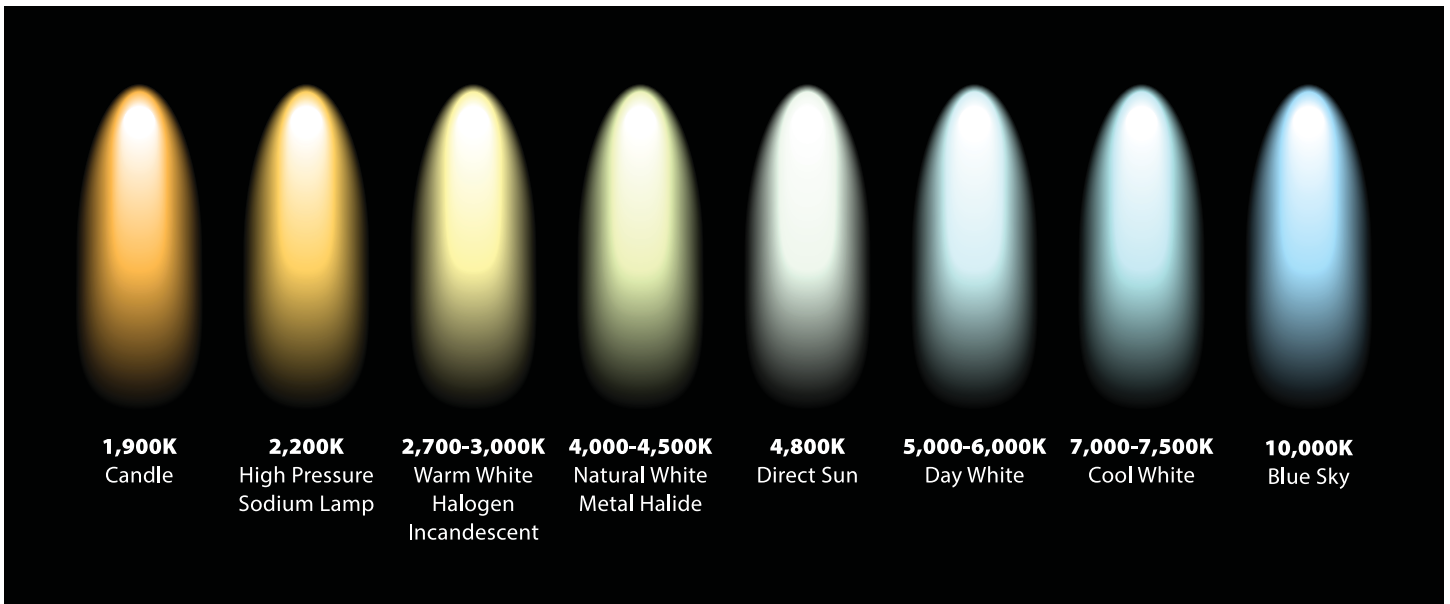
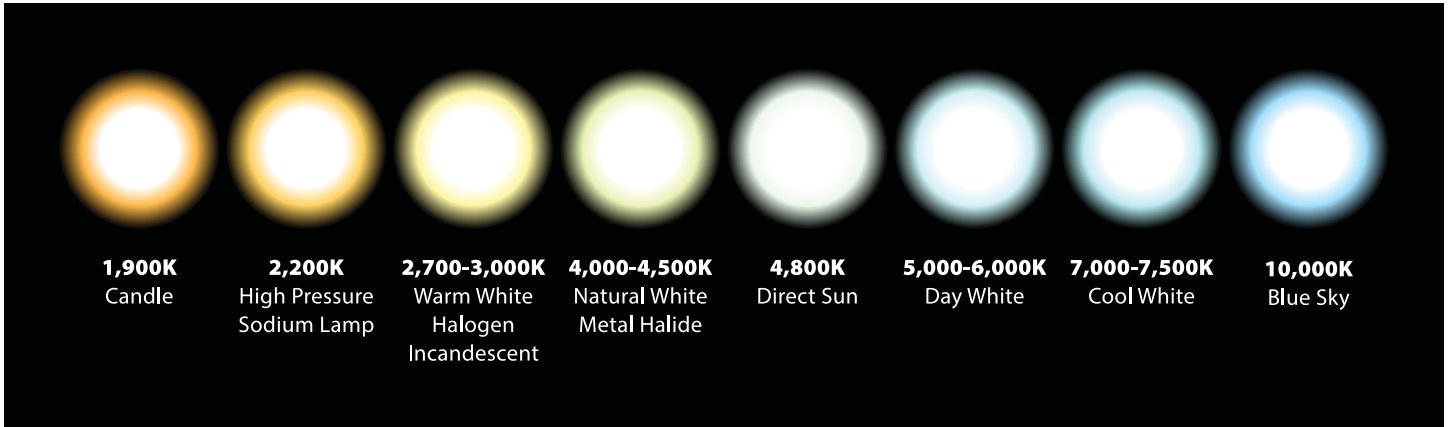
- Lower energy consumption
- They have a lower environmental footprint
- Significantly longer lifespan. On average, LEDs last three times as long as the current lights
- LEDs come in a variety of colours (bright white to yellow orange)
- There is no mercury or other known disposable hazards
- Night visibility will be improved due to higher colour rendering, higher colour temperature, and colour consistency.

How will the light given off by LEDs be different from the old lights?

- LED street lights produce a whiter and more natural light than the orange light emitted from the existing street lights.
- This whiter light will improve nighttime visibility, which will help improve traffic safety for drivers, bicyclists, and pedestrians.
- LED street lights also make it easier to see the contrast between an object and its surroundings; the result being able to quickly and more accurately identify people, vehicles, road debris and other objects on the road or sidewalk.

I keep hearing about the colour of a light, what does that mean?

- Colour temperature is a way to describe the light given off by a light bulb. It is measured in degrees of Kelvin (K) on a scale from 1,000 to 10,000. The higher the kelvin rating, the whiter or cooler looking the light is; the lower the kelvin rating the more yellow or warmer looking the light. Communities will have a choice between 3000K and 4000K for each streetlight.



How were the lights chosen for our community?

- BC Hydro is providing LEDs in a variety of wattages. Each light choice is available in two colour temperatures:
 - 3000K (warm white) and 4000K (cool white).

Our community has chosen 3000 K (warm) in residential areas and 4000 K (cool) in commercial, industrial areas and intersections.

Streetlight comparison High pressure sodium vs LED

Current lighting		High efficiency replacement	
HPS wattage	Equivalent	LED wattage	Colour temperature options
100W Flat		39W	3000K warmer 4000K cooler
100W Drop		75W	
150W		114W	
200W		162W	

LEDS AND THE ENVIRONMENT

What are the environmental benefits from using the new LED street lights?

- LED street lights are more energy efficient, meaning there will be reduction in electricity use when compared to existing street lights.
- LED lights have extremely long lives and they don't have filaments that can quickly burn out. An LED light can last up to 100,000 hours, which means their bulbs won't be filling up landfills.
- Because of their energy efficiency and long lifespan, LED streetlights help to reduce carbon emissions.
- LED lights do not contain toxic chemicals like mercury, unlike traditional high-pressure sodium lamps or mercury-vapor lamps.

Will using LED streetlights reduce light pollution?

- LED street lights are designed to focus light downward towards the road and sidewalk where it is needed and limits light shining upwards or into nearby property.
- Because of this, nighttime visibility of roads and sidewalks will improve while also reducing light pollution.

What will happen to the old lights when they are removed?

- Removed fixtures will be disassembled to facilitate recycling

Where can I get more information about the program?

- You can contact us at ahertzog@smithers.ca or visit bchydro.com/streetlightproject.

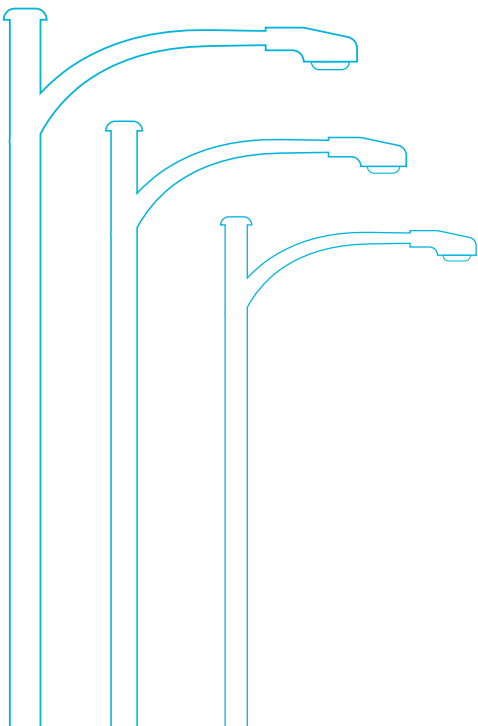
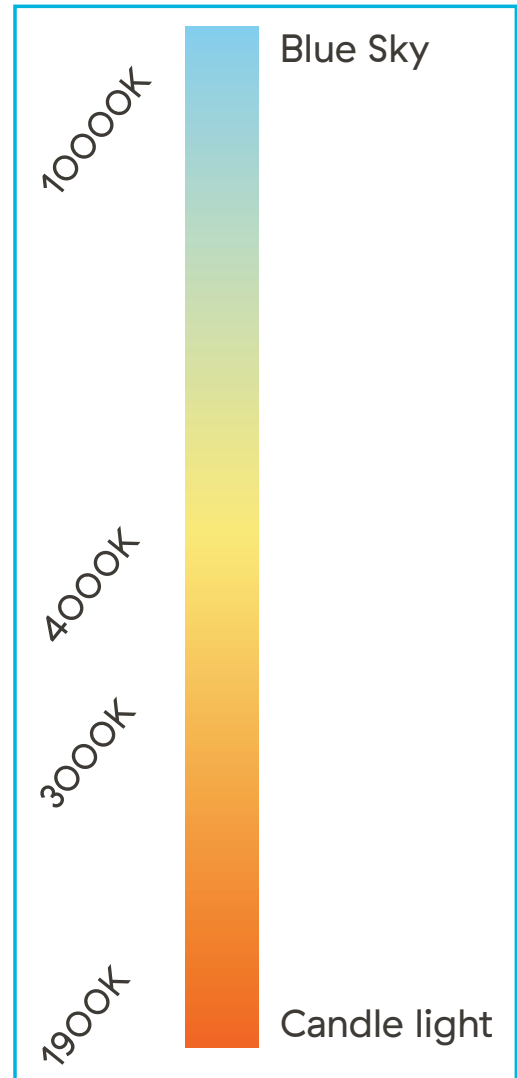
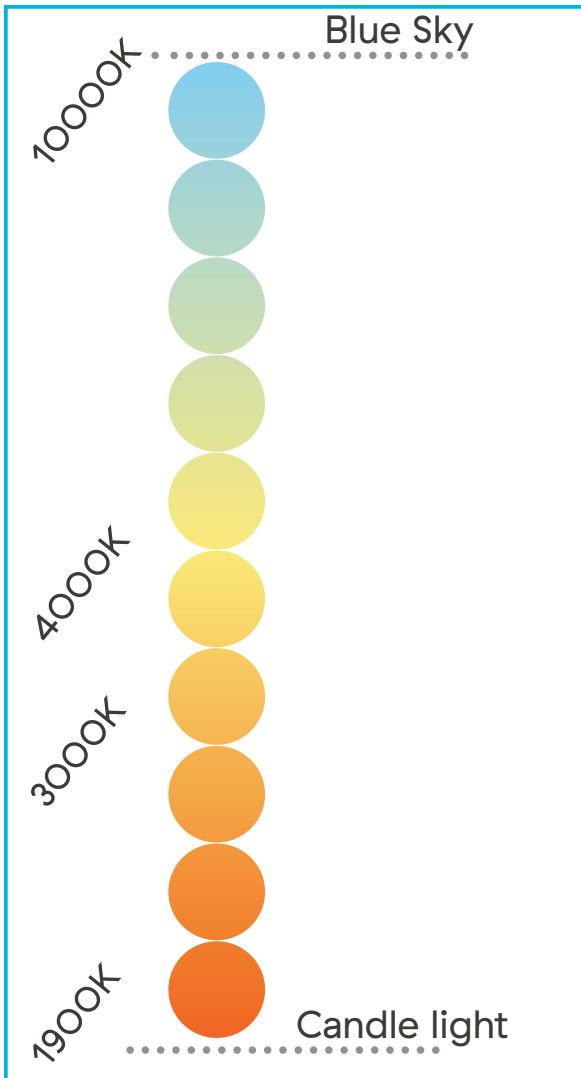
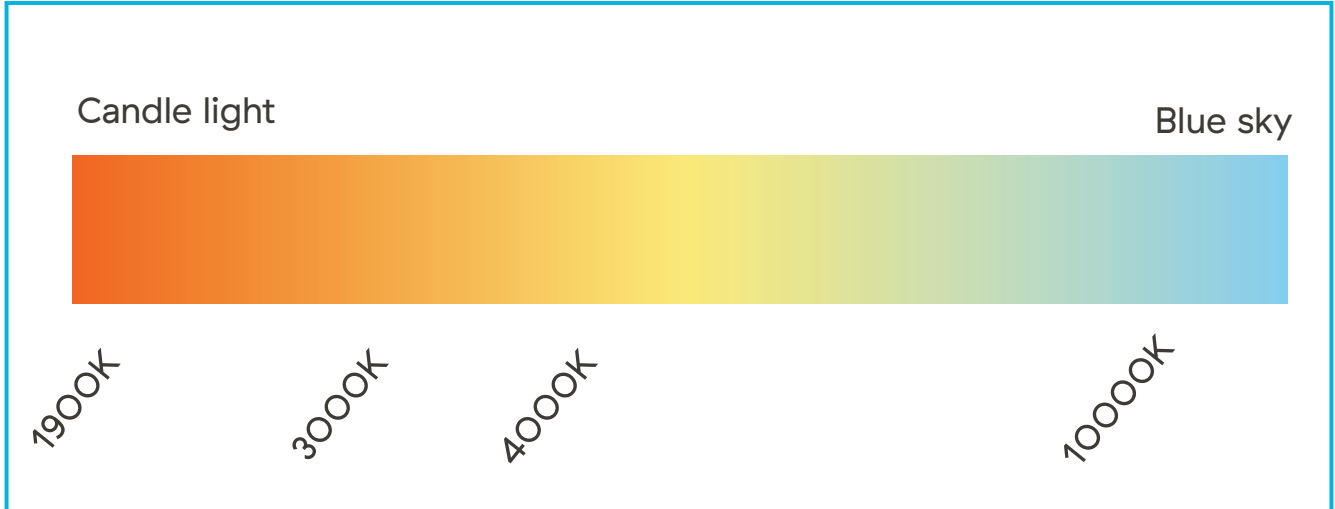




Image gallery

All images and graphics in this gallery are available for your use [here](#).

Colour temperature



Kelvin comparison

	Kelvin	Color tone	Typical use
	3000K	Warmer (or softer) white light	<ul style="list-style-type: none">○ Residential neighbourhoods○ Environmentally sensitive areas
	4000K	Cooler (or neutral) white light	<ul style="list-style-type: none">○ Commercial and industrial areas○ Non-residential roadways and intersections

Wattage comparisons

Streetlight comparison High pressure sodium vs LED

Current lighting		High efficiency replacement	
HPS wattage	Equivalent	LED wattage	Colour temperature options
100W Flat		39W	3000K warmer 4000K cooler
100W Drop		75W	
150W		114W	
200W		162W	

How to spot the difference

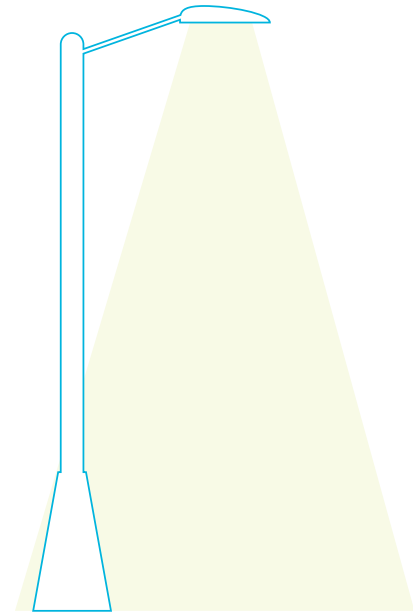
High-pressure sodium

- Yellow light
- Less direct, focused coverage
- High light spill



LED

- White light
- Direct, focused coverage
- Less light spill



Streetlight comparison
High pressure sodium vs LED

3000K



High pressure sodium

37W

75W

114W

162W

4000K



High pressure sodium

37W

75W

114W

162W

Before and after comparison

Before



100W high pressure sodium

After



37W LED 3000K



100W high pressure sodium



75W LED 3000K



100W high pressure sodium



114W LED 3000K

Colour rendition



37W LED 3000K



37W LED 4000K



75W LED 3000K



75W LED 4000K



114W LED 3000K



114W LED 4000K



162W LED 3000K



162W LED 4000K