

Minor Roads LED Street Lighting Upgrade

The City of Ballarat is currently in the planning stages of an LED bulk replacement of its remaining non-LED streetlights on minor roads across the municipality. The new LED lights perform better, last longer and are significantly more efficient than the existing lights.

Major road lighting is not part of the current project, which we envisage the design/planning work will occur in the coming 3-5 years.

Works on the minor road lighting are expected to commence in June 2021 and be completed by December 2021. This project is being completed as part of the second stage of the "Lighting the Regions" LED street lighting replacement project, in partnership with the Central Victorian Greenhouse Alliance (CVGA) and involving nine other councils in the region.

Due to the city-wide scale and life expectancy of LED, Council has also been able to use this project as an opportunity to improve lighting levels in key locations with key strategic priorities for the city and to address some areas historically performing below standard.

Frequently Asked Questions

Why do this project now?

Changing street lighting to LED is a flagship project of Council's Carbon Neutrality and 100% Renewables Action Plan. Recent advancements in LED technology presents Council with the opportunity to significantly reduce the energy use and maintenance costs associated with street lighting along its roads. In addition, it allows Council to address issues with the current mercury vapour lights, which are inferior from an energy, maintenance and quality perspective.

In addition, mercury is a highly toxic environmental pollutant – In response, the Minamata Convention on Mercury aims to eradicate mercury from supply chains, which has meant that the supply of mercury vapour globes is dwindling and costs to maintain these are growing. Given this, there is now the double benefit of avoiding these price increases and eradicating additional mercury from future supply chains.

When does the project take place?

The installation works 1st June 2021 and forecast to be completed by December 2021. Works are being completed by Lendlease under Powercor's direction. For a project of this size, works schedules are developed on a week-by-week basis but can vary considerably due to many factors. We aim to provide monthly updates of the areas completed.

Where does the project take place?

This project will involve the changeover of non-LED streetlights on residential streets and roads throughout the municipality.

What does the project involve?

The project focuses on the LED upgrade of approximately 6,751 existing streetlights. These will be replaced with more energy-efficient and better-quality LED alternatives. Council will also seek to install 165 new lights. Light levels will be made more consistent across the project area, improving safety on residential streets across the city.

How is the project being funded, and how much money will it save?

This project is being funded by Council at a cost of approximately \$3 - \$3.5 million over the multi-year program. It will achieve energy and maintenance costs savings of approximately \$9.7 million for Council over the life of the assets.

How will the works affect my street on the day?

The changeover of streetlights involves a single elevated work platform with two to three crew members. It takes less than 5 minutes to replace a streetlight, so any disruptions to traffic flow in your street should not last long. Residents should follow any traffic management devices present. All cars can remain parked on the streets, providing you do not obscure bins on your scheduled bin collection day (refer to "How to place your bin on the street" at <https://www.ballarat.vic.gov.au/property/waste>). Works are expected to take place on weekdays between 8am and 4pm.

Who is installing the new lights?

The energy distributor Powercor has contracted Lendlease to install the lights. Lendlease will be liaising with Council throughout the project.

Why did the Council choose these particular lights?

The LED lights chosen by Council have been approved for use by Powercor, which is the distribution company that owns the lighting infrastructure in the municipality. LED is also consistent with Council policy for new suburbs and street redevelopment programs. The lights have been tested to ensure they meet relevant Australian Standards in regard to safety and light levels. Trial results throughout Victoria have demonstrated that they have superior performance to the existing lights.

The new lights have:

- Greater uniformity of light across and along the street
- Better "colour rendering" and visibility
- Less depreciation of the light output over time
- Better evenness of lighting across and along the street

How much energy, greenhouse gas emissions will this project save?

The project will save on energy and costs, and drastically reduce greenhouse emissions. It will:

- Replace around 6,751 streetlights with more energy-efficient and better-quality LED alternatives.
- Achieve energy and maintenance costs savings of approximately \$9.7 million for Council over the life of the assets.
- Save around 41,700 tonnes of greenhouse emissions between now and 2040.

How long do the lights last?

The luminaire (the main body of the light) will last about 20 years, as will the LED chips. The photoelectric cells (light sensors that switch the lights on and off) last 10 years. Alternatively, the current mercury vapour lamps last for only 4 years.

Are the old lights recycled?

Yes! The recycling of old lights that are taken down during a bulk change is the responsibility of the installer. For example, the glass collected is recycled into products such as glass wool insulation for homes. The mercury is distilled and reused in the dental industry to manufacture amalgam. The aluminium body and other fixed components (for example, steel screws, copper wires) are collected and end up as ingots used in the industry.

What will happen to Ballarat's beautiful and unique Heritage lights?

Ballarat's decorative/heritage lights are not being exchanged to LED as part of the current works program. The current project budget does not extend that far, and heritage lights require further planning in regard to the pole type, paint colour and entry point (where the electrical components are positioned).

How can I get more information about the works either during or after the have taken place?

Visit Council's website: www.ballarat.vic.gov.au

If you have any questions before or after the project, please contact Council's Service Centre on (03) 5320 5500.