

Metro Tasmania Zero Emission Bus (ZEB) Trial Bulletin September 2022



Welcome to the first in a series of bulletins about the Metro Tasmania – Zero Emission Bus (ZEB) Trial. Each bulletin will provide a project update and take a quick look at a specific aspect of the trial. In this first bulletin we explain what the ZEB trial is, and why we are doing it!

What is the ZEB Trial?

The ZEB trial includes two sub-trials, which will both be run at the same time:

- Battery Electric Bus Trial (Launceston)
 - Up to three BEB's will operate on a wide range of existing Metro routes for two years, commencing in late 2023. A BEB is powered by an electric motor with the energy coming from on-board batteries. Mains power electricity is used to charge the batteries through chargers, which will be installed in Metro's Launceston depot.
- Fuel Cell Electric Bus Trial (Hobart)
 - Up to three FCEB's will operate on a wide range of existing Metro routes for three years, commencing in early 2024. A FCEB is also powered by an electric motor, with hydrogen gas used as the fuel. The hydrogen is converted to electricity on-board through a fuel-cell. The 'exhaust' from a FCEB is water, coming out as steam! The FCEBs will be refuelled at a hydrogen refuelling station, which will be installed at Metro's Mornington depot.

Why are we doing the ZEB Trial?

Vehicles are one of the biggest contributors to greenhouse gas emissions, which are the likely cause of climate change¹. The Tasmanian Government is funding the trial to learn about how we can reduce our vehicle emissions; and to help Tasmania achieve net zero emissions by 2030.

Tasmania is one of the few places in the world to already have 100 per cent renewable electricity. We can use this emissions-free electricity to power a battery electric bus (BEB) by charging its batteries.

Our renewable electricity can also be used to produce 'green hydrogen' gas, which is expected to be increasingly used globally as a substitute for fossil fuels across many sectors, including heavy transport.

The Tasmanian Government is promoting the State as a major potential producer and exporter of green hydrogen. Metro's fuel cell electric buses (FCEB) will kick-start this emerging industry as Tasmania's first project using green hydrogen.

For Metro, the ZEB trials will provide valuable operational experience to help it plan for a longer-term, future transition of its fleet to zero emission buses.

¹ [Causes of past and recent change \(climatechangeinaustralia.gov.au\)](https://climatechangeinaustralia.gov.au) 26 August 2022