

*Draft for Public Review - May 21*

# Certificate III in Automotive Electric Vehicle Technology

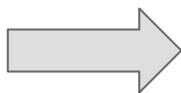
**PwC's Skills for Australia**



## New job role

### Battery Electric Vehicle technician

- entry level/apprentice



## Proposed new qualification

### Certificate III in Electric Vehicle Technology

- Specialising in Light Vehicles OR Heavy Vehicles

## Description

Describes the intended outcome/s of the qualification as well as any licencing/regulatory requirements related to the job role.

This qualification reflects an entry level role - for individuals who service, diagnose and repair battery electric vehicles and components in the automotive, service and repair industry.

**Licencing:** The completion of this qualification enables an individual to apply for an AAC02 - *Refrigerant handling licence - qualified persons*. There is currently no BEV licencing linked to this qualification.

## Core skills

Skills that all learners must have that are critical and relevant across all BEV roles - with both heavy and light vehicles.

- Follow environmental and sustainability best practice in an automotive workplace
- Follow safe working practices in an automotive workplace
- Use and maintain electrical test equipment in an automotive workplace
- Service and maintain battery electric vehicles
- Depower and reinitialise battery electric vehicles
- Diagnose and repair auxiliary motors and associated components in battery electric vehicles
- Diagnose and repair system instrumentation and safety interlocks in battery electric vehicles
- Diagnose and repair HVAC and rechargeable energy storage cooling systems in battery electric vehicle
- Diagnose and repair DC to DC converters in battery electric vehicles
- Diagnose and repair high voltage rechargeable energy storage systems in battery electric vehicles
- Diagnose and repair traction motor speed control systems in battery electric vehicles
- Diagnose and repair high voltage traction motors in battery electric vehicles
- Test and repair basic electrical circuits
- Test, charge and replace batteries and jump-start vehicles
- Service air conditioning and HVAC systems
- Diagnose and repair air conditioning and HVAC components
- Develop and carry out diagnostic test strategies
- Use and maintain tools and equipment in an automotive workplace



## Key questions

- 1 Do you agree there is need for a new qualification for BEV technicians?
- 2 Are these the right core skills?  
Are there any skills missing or should be added? Are there any skills that should be removed?
- 3 Do you agree with specialisations in light and heavy vehicles? Should specialisation be mandatory or should there be an option to be a generalist BEV technician?
- 4 Are there sufficient safety skills in the core considering there is not yet strict licencing in the industry?



## Elective skills

Skills that learners can choose to undertake specific to their workplace or job role.

**Light vehicle - specialisation - learners must undertake all units below to obtain this specialisation**

- Diagnose and repair light vehicle hydraulic braking systems
- Diagnose and repair light vehicle steering systems
- Diagnose and repair light vehicle hydraulic braking systems
- Diagnose and repair light vehicle suspension systems
- Balance wheels and tyres
- Remove, inspect, repair and refit light vehicle tyres and tubes
- Inspect and service braking systems

**Heavy Vehicle - specialisation - learners must undertake all units below to obtain this specialisation**

- Diagnose and repair heavy electric vehicle rechargeable energy storage system
- Diagnose and repair heavy vehicle air braking systems
- Diagnose and repair heavy commercial vehicle steering systems
- Diagnose and repair heavy commercial vehicle suspension systems
- Diagnose and repair heavy vehicle drive shafts
- Inspect and service hydraulic systems
- Inspect and service final drive assemblies

**General electives - units learners may choose to undertake specific to their workplace or job role**

- Respond to customer needs and enquiries in an automotive workplace
- Communicate effectively in an automotive workplace
- Use information technology systems
- Estimate and quote automotive mechanical and electrical repairs
- Repair wiring harnesses and looms
- Remove, replace and program electrical and electronic units and assemblies
- Test and repair basic electrical circuits
- Diagnose and repair network electronic control systems
- Diagnose and repair vehicle dynamic control systems
- Diagnose and repair electronic body management systems
- Carry out light vehicle wheel alignment operations
- Carry out servicing operations
- Remove, replace and align bolt-on vehicle body panels and components
- Remove and replace automotive and marine interior trim components

## How can I provide detailed feedback?

