



**Australian Government**

# **Assessment Requirements for AURETH011 Depower and reinitialise hybrid electric vehicles**

**Release: 1**

# Assessment Requirements for AURETH011 Depower and reinitialise hybrid electric vehicles

## Modification History

Release	Comment
Release 1	New unit of competency.

## Performance Evidence

Before competency can be determined, individuals must demonstrate they can perform the following according to the standard defined in the unit's elements, performance criteria, range of conditions and foundation skills:

- safely depower the rechargeable energy storage system (RESS) and separated extra low voltage (SELV) of two different hybrid electric vehicles (HEVs) or plug-in hybrid electric vehicles (PHEVs), and stabilise the vehicles ensuring that no residual high voltage (HV) is measured
- safely reinitialise each HEV's or PHEV's RESS and SELV system and confirm correct vehicle operation.

## Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to depowering and reinitialising the RESS in HEVs or PHEVs, including procedures for:
  - identifying hazards and controlling risks associated with:
    - working with high voltages on HEV and PHEV electrical systems
    - wearing jewellery while working around high electrical currents
  - determining appropriate procedures for minimising risk associated with hazards, including applying electrical safety precautions when:
    - using personal protective equipment (PPE), including electrical safety gloves with 1000 volt rating and Australian standards rated HV insulating mat
    - identifying and using firefighting equipment as appropriate
    - using the 'one hand' rule
    - following live system warning tags and signs

- depowering vehicle
- isolating HV RESS electrical supply
- stabilising vehicle electrical system
- requirements of AS 5732 Electric vehicle operations - Maintenance and repair
- operating principles of RESS and SELV electrical systems relevant to a range of HEVs and PHEVs
- application, purpose and operation of a range of vehicle RESS depowering and repowering methods.

## Assessment Conditions

Assessors must satisfy NVR/AQTF assessor requirements.

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessment must include direct observation of tasks.

Where assessment of competency includes third-party evidence, individuals must provide evidence that links them to the HEVs or PHEVs that they have depowered and reinitialised, e.g. repair orders.

Assessors must verify performance evidence through questioning on skills and knowledge to ensure correct interpretation and application.

The following resources must be made available:

- automotive repair workplace or simulated workplace
- PPE, including electrical safety gloves with 1000 volt rating and Australian standards rated HV insulating mat
- manufacturer specifications and service procedures for the HEVs or PHEVs being depowered and reinitialised
- AS 5732 Electric vehicle operations - Maintenance and repair
- two different operational HEVs or PHEVs as specified in the performance evidence
- electrical test equipment, including:
  - digital multimeter with Cat III 1000 volt rating
  - insulation tester
  - residual voltage tester, if specified in original equipment manufacturer (OEM) specifications
  - scan tool
- tools, equipment and materials appropriate for depowering and reinitialising RESS in HEVs and PHEVs.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b4278d82-d487-4070-a8c4-78045ec695b1>

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