



**Australian Government**

# **TLIC4073A Set up, operate and shut down a distributed power system**

**Release 1**

# **TLIC4073A Set up, operate and shut down a distributed power system**

## **Modification History**

Release 1. This is the first release of this unit.

## **Unit Descriptor**

This unit involves the skills and knowledge required to set up, operate and shut down a distributed power system in accordance with organisational procedures and the requirements of relevant codes of practice.

Licensing or certification requirements are not applicable to this unit.

## **Application of the Unit**

This unit covers setting up the remote control system, setting up the lead control system, operating, monitoring and shutting down the distribute power system.

## **Licensing/Regulatory Information**

Refer to Unit Descriptor.

## **Pre-Requisites**

Nil

## **Employability Skills Information**

This unit contains employability skills.

## **Elements and Performance Criteria Pre-Content**

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

## Elements and Performance Criteria

- |                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1 Prepare train for set up of distributed power system</b> | 1.1 Distributed motive power units are positioned as required in train consist<br>1.2 Train sections are marshalled to form one train as required                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>2 Set up remote distributed motive power units</b>         | 2.1 Distributed power is set up on all remote units<br>2.2 Distributed power system is tested in accordance with manufacturer instructions and/or organisational policies and procedures ready for linking with lead control unit<br>2.3 Start-up procedures for remote distributed motive power units are followed in accordance with manufacturer instructions and/or organisational policies and procedures                                                                                                                                                      |
| <b>3 Set up lead distributed motive power units</b>           | 3.1 Distributed power system is set up by conditioning/activation of required systems<br>3.2 Distributed power system is tested in accordance with manufacturer instructions and/or organisational policies and procedures<br>3.3 Start-up procedures for lead distributed motive power units are followed in accordance with manufacturer instructions and/or organisational policies and procedures<br>3.4 Full control of distributed motive power units is established after linking process has been completed and required function tests have been conducted |
| <b>4 Operate and monitor distributed power train</b>          | 4.1 Distributed power system is operated and monitored during train operation to ensure safe train handling and control in accordance with operational requirements<br>4.2 Operational difficulties/faults are identified and rectified ensuring operational safety and efficiency<br>4.3 Shut-down procedures for distributed motive power units are followed in accordance with manufacturer's instructions and/or organisational policies and procedures                                                                                                         |
| <b>5 Shut down distributed power systems</b>                  | 5.1 Distributed power train is secured against movement as required prior to system shut down<br>5.2 Shut-down procedures for distributed motive power units are followed in accordance with manufacturer instructions and/or organisational policies and procedures                                                                                                                                                                                                                                                                                                |

## Required Skills and Knowledge

This section describes the knowledge and skills required for this unit.

### Required knowledge:

- Controls, instruments and indicators of a distributed power system and their purpose, location and use
- Critical distributed power system control information including compatible coupling, braking, drive equipment and ancillary systems
- Procedures for managing hazardous situations involving distributed power system
- Procedures for identifying equipment defects in distributed power system and assessing any identified defective units for appropriate action
- Relevant environmental protection legislation, regulations, codes, policies and procedures
- Information/documents such as:
  - equipment operation manuals
  - operational instructions, policies and procedures
  - organisational procedures and instructions, and job specifications
  - relevant logbooks
- Relevant Australian Standards
- Relevant legislated rail safety requirements including state and territory acts and regulations, and nationally approved compliance codes and/or guidelines
- Relevant work health and safety (WHS)/occupational health and safety (OHS) legislation, regulations, codes, policies and procedures

### Required skills:

- Monitor performance of equipment
- Operate and adapt to differences in equipment in accordance with standard operating procedures
- Read and interpret instructions, procedures, information and signs relevant to the setting up and shutting down of a distributed power system
- Report and/or rectify any identified problems, faults or malfunctions when setting up and shutting down a distributed power system in accordance with regulatory requirements and organisational procedures
- Select and use required personal protective equipment conforming to industry and WHS/OH&S standards

## Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and skills, the range statement and the assessment guidelines for this Training Package.

### **Critical aspects for assessment and evidence required to demonstrate competency in this unit**

The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of applying:

- required knowledge and skills
- relevant legislation and organisational procedures
- other relevant aspects of the range statement.

### **Context of and specific resources for assessment**

Performance is demonstrated consistently over time and in a suitable range of contexts.

Resources for assessment include access to:

- a range of relevant exercises, case studies and/or other simulated practical and knowledge assessment, and/or
- an appropriate range of relevant operational situations in the workplace.

In both real and simulated environments, access is required to:

- relevant and appropriate materials and equipment, and
- applicable documentation including organisational procedures, regulations, codes of practice and operation manuals.

### **Method of assessment**

As a minimum, assessment of knowledge must be conducted through appropriate written/oral tests.

Practical assessment must occur:

- through activities in an appropriately simulated environment, and/or
- in an appropriate range of situations in the workplace.

## Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance.

Distributed power may include:

- Locotrol
- Siemens
- Wabtec

Function tests may include:

- brake flow/continuity test
- direction test
- electromagnetic valve
- emergency
- flow test for motive power unit sequence
- leakage test

Safety and protective equipment may include:

- flags
- gloves
- hand lamps
- hearing protection
- high visibility clothing
- insect repellent
- portable radios/mobile phones
- safety:
  - devices
  - footwear
  - glasses
  - headwear
- sunglasses
- sunscreen

## Unit Sector(s)

Not applicable.

## Competency Field

C – Vehicle Operation