



Australian Government

UEERE0062 Design micro-hydro systems

Release: 1

UEERE0062 Design micro-hydro systems

Modification History

Release 1. This is the first release of this unit of competency in the UEE Electrotechnology Training Package.

This unit replaces and is not equivalent to UEERE0029 Design micro-hydro systems rated to 6.4 kW. Modifications include:

- Unit title changed
- Unit application updated
- Prerequisites changed
- Significant amendments made to Elements and Performance Criteria
- Range of conditions updated
- Significant amendments to Performance and Knowledge Evidence
- Assessment conditions updated.

Application

This unit involves the skills and knowledge required to design micro-hydro systems and their installation.

It includes determining and developing micro-hydro system design, following design briefs, documenting design calculations and criteria, and obtaining design approval for micro-hydro system.

This unit is appropriate for Licenced Electricians or Electrical Engineers with responsibility for designing micro-hydro systems.

Licensing, legislative or certification requirements that apply to this unit may differ between jurisdictions and system types. They should be checked prior to commencing this unit.

Pre-requisite Unit

UEERE0055 Conduct site survey for off-grid photovoltaic/generating set systems
and

UEEL0039 Design, install and verify compliance and functionality of general electrical installations

or

UEERE0051 Apply electrical principles to renewable energy design

Competency Field

Renewable Energy

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to design micro-hydro system

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1** Work health and safety (WHS)/occupational health and safety (OHS) processes and workplace procedures for a given work area are identified, obtained and applied
- 1.2** Scope of the micro-hydro system electrical installation is determined from design brief
- 1.3** Safety and regulatory requirements to which the electrical installation must comply are identified, obtained and applied
- 1.4** Design development work is planned to meet scheduled timelines in consultation with other person/s involved in the micro-hydro system installation or associated work

2 Develop micro-hydro system design

- 2.1** Micro-hydro system performance standards and compliance methods are applied to the design
- 2.2** Safety, functionality and budgetary considerations are incorporated in the micro-hydro system design
- 2.3** Power and energy management requirements are incorporated in design
- 2.4** Design aspects are verified by qualified person/s
- 2.5** Micro-hydro system design is drafted and checked for compliance with the design brief and regulatory requirements
- 2.6** Micro-hydro system design is documented for submission to relevant person/s for acceptance and

approval

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the UEE Electrotechnology Training Package Companion Volume Implementation Guide.

Designing micro-hydro systems must include: • two different micro-hydro systems.

Unit Mapping Information

This unit replaces and is not equivalent to UEERE0029 Design micro-hydro systems rated to 6.4 kW.

Links

Companion Volume Implementation Guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>