



Australian Government

UEERE0065 Design wind energy systems

Release: 1

UEERE0065 Design wind energy 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 UEERE0032 Design wind energy conversion systems (WECS) rated to 10 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 wind energy systems and their installation.

It includes determining and developing wind energy system design, following design briefs, documenting design calculations and criteria, and obtaining design approval for wind energy system.

The unit covers domestic and small commercial applications. It does not include utility scale wind generation.

This unit is appropriate for Licenced Electricians or Electrical Engineers with responsibility for designing wind energy 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

UEEEL0039 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 wind energy 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 wind energy system 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 wind energy system installation or associated work

2 Develop wind energy system design

2.1 Wind energy system performance standards and compliance methods are applied to the design

2.2 Safety, functionality and budgetary considerations are incorporated in the wind energy 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 Wind energy system design is drafted and checked for compliance with the design brief and regulatory requirements

2.6 Wind energy 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 wind energy system must include: • two different wind energy systems.

Unit Mapping Information

This unit replaces and is not equivalent to UEERE0032 Design wind energy conversion systems (WECS) rated to 10 kW.

Links

Companion Volume Implementation Guides are found in VETNet -

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