



Australian Government

Assessment Requirements for UEERE0054

Conduct site survey for grid-connected photovoltaic and battery storage systems

Release: 1

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Modification History

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

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions on at least two occasions and include:

- applying relevant work health and safety (WHS)/occupational health and safety (OHS), and risk assessment and control procedures
- identifying all relevant stakeholders and qualified personnel required to complete site survey
- communicating effectively with clients to discuss:
 - requirements for site assessment and information to be collected
 - roles/responsibilities of people involved in design, installation and maintenance
 - industry standards, building/electrical regulations and codes, and risk minimisation relevant to the installation
 - benefits and options of photovoltaic and battery storage systems and energy management
- undertaking site survey safely and documenting findings including:
 - potential site hazards that may impact installation
 - site access, layout, distances and building structures
 - solar access and shading
 - gathering information about existing electrical installation and any existing energy generation elements
 - current energy usage including maximum power and energy demand
 - current and expected future energy generation needs including maximum power demand
 - working with qualified personnel as required to complete site survey
 - options for suitable photovoltaic generating systems
 - options for suitable battery storage systems
 - options for placement of system components, any restrictions or issues of concern
 - potential installation problem/s and recommend solutions
- producing final site survey report.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of

the requirements of the elements, performance criteria and range of conditions and include knowledge of the following. Additional advice and definitions for some items is provided in the UEE Training Package Companion Volume Implementation Guide (CVIG).

- relevant WHS/OHS requirements including:
 - risk assessment and mitigation processes
 - safe work method statements (SWMS)/job safety assessments or risk control processes prior to site visit
 - legislated requirements
 - roof access and working at heights
 - electrical safety
- basic energy principles
- relevant manufacturer specifications
- relevant standards, building regulations and codes of practice
- stakeholders, required personnel and roles and responsibilities of people involved in design, installation and maintenance
- methods for identifying and recording existing electrical infrastructure
- relevant local, state and commonwealth requirements
- site survey process and information to be gathered, recorded and analysed
- energy assessment and review including:
 - methods for discussing with client energy use patterns and future plans in energy use
 - methods for collecting energy usage and patterns
 - consideration of appropriate energy efficient appliances and technologies
 - data sources
- energy services required by the electrical installation grid-connected photovoltaic systems including:
 - different equipment types their componentry and configuration
 - factors that impact equipment type selection related to site and usage characteristics
 - basic design, installation, and maintenance requirements
 - connection limitations, requirements
 - basic configuration of a PV array
 - environmental considerations and required approvals
- grid-connected battery storage systems including:
 - methods of battery storage
 - fundamentals of battery storage
 - different energy storage technologies, associated componentry and system configuration
 - factors that impact equipment type selection related to site and usage characteristics
 - life expectancy
 - basic design, installation and maintenance requirements
 - basic operation of battery storage systems and integrated systems
- installation considerations and requirements for grid-connected photovoltaic and battery storage systems

- electrical diagrams for a RE system including:
 - functional block diagrams for typical grid-connected RE system configurations
 - architectural and site diagrams to show the locations of equipment, fittings and cabling.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment (PPE) currently used in industry
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

Links

Companion Volume Implementation Guides are found in VETNet -

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