



Australian Government

UEPOPS447 Coordinate photovoltaic solar power plant operations

Release: 1

UEPOPS447 Coordinate photovoltaic solar power plant operations

Modification History

Release 1. This is the first release of this unit of competency in the UEP Generation Training Package.

Application

This unit involves the skills and knowledge required to undertake the coordination of photovoltaic solar power plant operations.

A photovoltaic solar power plant operation typically consists of a large scale Photovoltaic System (P.V.) system designed for the supply of power into the electricity grid. The solar power source is via photovoltaic modules that convert light directly to electricity.

Competency in this unit requires the ability to coordinate plant operations, monitor plant operations, test plant operations, analyse plant faults and report operation against strategy requirements. Individuals will, in general, work as an operator with responsibility for photovoltaic solar power plant coordination, in a power generation facility.

Power generation plant operators are typically trained and authorised to isolate, prepare plant and issue permits to work.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Note: Workplace practice

The application of the skills and knowledge described in this unit may require a licence or training permit to practice in the workplace where work is carried out on gas and electrical installations. Additional conditions may apply under state and territory legislative and regulatory licensing requirements.

Pre-requisite Unit

There are no prerequisite units.

Competency Field

Operations

Unit Sector

Electricity generation

Elements and Performance Criteria

ELEMENTS

PERFORMANCE CRITERIA

Elements describe the essential outcomes.

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

1 Coordinate plant operations

1.1 Photovoltaic solar power plant operational procedures are implemented, in accordance with workplace procedures

1.2 Resources and supplies are coordinated to meet photovoltaic solar power plant requirements, in accordance with workplace procedures

2 Monitor plant operations

2.1 Deviations from photovoltaic solar power plant operations are identified and recorded, in accordance with workplace procedures

2.2 Photovoltaic solar power plant operation and condition is monitored, in accordance with workplace procedures and legislative requirements

2.3 Requirements that may impact on photovoltaic solar power plant operations are monitored, in accordance with workplace procedures

2.4 Photovoltaic solar power plant operations are monitored to meet legislative, industry and site requirements, in accordance with workplace procedures

3 Test plant operation

3.1 Operational tests are performed on photovoltaic solar power plant, in accordance with workplace procedures

3.2 Photovoltaic solar power plant is observed for correct operational response, in accordance with workplace procedures

3.3 Corrective action is taken, in accordance with workplace procedures, when response does not meet with documentation, photovoltaic solar power plant integrity or personnel safety requirements

3.4 Photovoltaic solar power plant is returned to required operational status upon completion of testing, in accordance with workplace procedures

4 Analyse plant faults

4.1 Causes of abnormal photovoltaic solar power plant operating conditions are identified, in accordance with workplace procedures, by analysing technical and

		operational information
	4.2	Corrective actions to rectify faults are determined, in accordance with workplace procedures
	4.3	Photovoltaic solar power plant integrity and personnel safety are maintained, in accordance with workplace procedures, and through consultation with personnel and technical and operational documentation
	4.4	Appropriate personnel, including specialists, are arranged for investigation of identified photovoltaic solar power plant operational abnormalities, in accordance with workplace procedures
5 Report operation against strategy requirements	5.1	Data is collected and processed for review, in accordance with workplace procedures and operational strategy
	5.2	Photovoltaic solar power plant operation or condition is reported, in accordance with workplace procedures and legislative requirements
	5.3	Abnormal photovoltaic solar power plant operating conditions are reported, in accordance with workplace procedures
	5.4	Changes to operational strategy are coordinated, in accordance with workplace procedures

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 Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UEPOPS447A Coordinate photovoltaic solar power plant operations.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1715b9fa-e7bd-441c-bb8d-cf22c9c825a8>

Assessment Requirements for UEPOPS447 Coordinate photovoltaic solar power plant operations

Modification History

Release 1. This is the first release of this unit of competency in the UEP Generation Training Package.

Performance Evidence

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

- analysing photovoltaic solar power plant faults using data analysis techniques and tools
- applying Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) requirements including:
 - emergency procedures
 - risk control measures
 - safe working practices
- communicating with personnel
- coordinating operational strategies
- coordinating photovoltaic solar power plant operations
- identifying photovoltaic solar power plant status
- implementing legislation, industry standards, codes of practice and regulations
- interpreting manufacturers' specifications and manuals
- monitoring photovoltaic solar power plant operations
- photovoltaic solar power plant generation and systems including operating parameters
- reporting operations against operational strategy requirements using recording procedures
- testing photovoltaic solar power plant operation

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all the requirements of the elements, performance criteria and range of conditions and includes knowledge of:

- coordination of operational strategies
- data collection and recording techniques
- legislation, industry standards, codes of practice and regulations
- manufacturers' specifications and manuals
- measurement and analysis systems and procedures
- photovoltaic solar power plant and equipment, its location and operating parameters

- photovoltaic solar power plant efficiency including performance and reliability targets
- photovoltaic solar power plant generation and systems
- photovoltaic solar power plant operating parameters
- typical arrangements of photovoltaic solar power plants
- WHS/OHS legislated requirements including:
 - emergency procedures
 - risk control measures
 - safe working practices
- workplace documentation
- workplace policies and procedures

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations current at the time of assessment.

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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.

Assessment must occur in workplace operational situations. Where this is not appropriate, assessment must occur in simulated workplace operational situations that reflect workplace conditions.

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 currently used in industry
- applicable documentation including workplace procedures, industry standards, equipment specifications, regulations, codes of practice and operation manuals

Links

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