



Australian Government

UEPOPS029 Coordinate photovoltaic solar power plant operations

Release: 1

UEPOPS029 Coordinate photovoltaic solar power plant operations

Modification History

Release 1. This is the first release of this unit of competency in the UEP Electricity Supply Industry - Generation Sector Training Package Release 2.0.

Application

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

A PV solar power plant operation consists of a large-scale PV system designed for the supply of power into the electricity grid. The solar power source is via PV 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 PV solar power plant coordination, in a power generation facility.

Power generation plant operators are 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.

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** PV solar power plant operational procedures are implemented in accordance with workplace procedures
- 1.2** Work health and safety (WHS)/occupational health and safety (OHS) regulations, legislative requirements, codes of practice, manufacturers' recommendations and specifications, environmental requirements and workplace procedures are identified, applied and monitored
- 1.3** Resources and supplies are coordinated to meet PV solar power plant requirements in accordance with workplace procedures

2 Monitor plant operations

- 2.1** Deviations from PV solar power plant operations are identified and recorded in accordance with workplace procedures
- 2.2** PV solar power plant operation and condition is monitored in accordance with legislative requirements and workplace procedures
- 2.3** Requirements that may impact on PV solar power plant operations are monitored in accordance with workplace procedures
- 2.4** PV solar power plant operations are monitored in accordance with workplace procedures

3 Test plant operation

- 3.1** Operational tests are performed on PV solar power plant in accordance with workplace procedures
- 3.2** PV solar power plant is observed for operational response in accordance with workplace procedures
- 3.3** PV 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 PV solar power plant operating conditions are identified by analysing technical and operational information in accordance with workplace procedures,
- 4.2** Corrective actions to rectify faults are determined in accordance with workplace procedures

- 4.3 PV solar power plant integrity and personnel safety are maintained through consultation with personnel, and technical and operational documentation in accordance with workplace procedures, and
 - 4.4 Relevant personnel, including specialists, are arranged for investigation of identified PV 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 operational strategy and workplace procedures
 - 5.2 PV solar power plant operation or condition is reported in accordance with legislative requirements and workplace procedures
 - 5.3 Abnormal PV 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 UEP Electricity Supply Industry - Generation Sector Training Package Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UEPOPS447 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 UEPOPS029 Coordinate photovoltaic solar power plant operations

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Performance Evidence

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

- analysing photovoltaic (PV) 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 PV solar power plant operations
- identifying PV solar power plant status
- implementing regulations, legislative requirements, codes of practice, manufacturers' recommendations and specifications, and environmental requirements
- interpreting manuals
- monitoring PV solar power plant operations
- reporting operations against operational strategy requirements using recording procedures
- testing PV 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 and performance criteria and include knowledge of:

- arrangements of PV solar power plants
- coordination of operational strategies
- data collection and recording techniques
- manuals
- measurement and analysis systems and procedures
- PV solar power plant and equipment, location and operating parameters
- PV solar power plant efficiency including performance and reliability targets

- PV solar power plant generation and systems
- PV solar power plant operating parameters
- regulations, legislative requirements, codes of practice, manufacturers' recommendations and specifications, and environmental requirements
- WHS/OHS requirements, including:
 - emergency procedures
 - risk control measures
 - safe working practices
- workplace documentation
- workplace policies and procedures.

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

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