



Australian Government

UEPOPS023 Coordinate electrical energy production

Release: 1

UEPOPS023 Coordinate electrical energy production

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 coordinate the safe and effective management of energy production to meet demand on an electricity generating unit.

Power utilities match demand and supply through adjusting the production rate of power generating facilities. This is achieved by taking generating units online and offline or through importing power from other utilities.

Competency in this unit requires the ability to coordinate unit operations, monitor network system and power generating plant, analyse network system and power generating plant faults and complete all documentation. Individuals will, in general, work as an operator with responsibility for coordinating electrical energy production, 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

UEPOPS019 Control electrical energy production

Competency Field

Operations

Unit Sector

Electricity generation

Elements and Performance Criteria

ELEMENTS

PERFORMANCE CRITERIA

Elements describe the essential Performance criteria describe the performance needed to

outcomes.

demonstrate achievement of the element.

1 Coordinate unit operations

- 1.1** 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
- 1.2** Electricity generating unit is monitored and observed to detect deviations from normal operating conditions in accordance with workplace procedures
- 1.3** Causes of abnormal operating conditions in electricity generating unit is identified by analysing technical and operational information in accordance with workplace procedures
- 1.4** Corrective actions are taken to rectify electricity generating unit abnormalities in accordance with workplace procedures
- 1.5** Electricity generating unit's integrity, personnel safety and continuity of supply are maintained in accordance with workplace procedures
- 1.6.** Consultation with relevant personnel is undertaken in accordance with workplace procedures
- 1.7** Electricity generating unit is operated at efficiency in accordance with workplace procedures

2 Monitor unit and plant

- 2.1** Electricity generating unit and power generating plant to be monitored are physically identified in accordance with workplace procedures
- 2.2** Electricity generating unit and power generating plant are monitored for normal operation and to detect deviations in accordance with workplace procedures
- 2.3** Relevant personnel are notified when defects and abnormal operating conditions in electricity generating unit and power generating plant are detected in accordance with workplace procedures,

3 Test unit and plant operation

- 3.1** Operational tests are performed in accordance with workplace procedures
- 3.2** Electricity generating unit and power generating plant are observed for operational response in accordance with

		workplace procedures
	3.3	Electricity generating unit and power generating plant are returned to operational status on completion of testing in accordance with workplace procedures
4 Analyse unit and plant faults	4.1	Causes of abnormal electricity generating unit operating conditions are identified by analysing technical and operational information in accordance with workplace procedures,
	4.2	Electricity generating unit and power generating plant integrity and personnel safety are maintained in consultation with personnel, technical and operational documentation, in accordance with workplace procedures
	4.3	Relevant personnel, including specialists, are arranged for investigation of identified operational abnormalities in accordance with workplace procedures
5 Complete documentation	5.1	Electricity generating unit and power generation plant problems, movements and status are reported in accordance with workplace procedures
	5.2	Documentation is updated 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 UEPOPS526 Coordinate electrical energy production.

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 UEPOPS023 Coordinate electrical energy production

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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 electricity generating unit and generating 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
- completing documentation
- coordinating electricity generating unit operations
- coordinating power generation, including:
 - controlling electricity generating unit systems energy generation
 - maintaining generator unit integrity
 - monitoring power generating plant and equipment operations
 - preparing power generation plant and equipment for operation
 - recognising power generation plant status
- identifying and responding to abnormal electricity generating unit system and power generating plant operating conditions
- implementing regulations, legislative requirements, codes of practice, manufacturers' recommendations and specifications, and environmental requirements
- interpreting manuals
- monitoring electricity generating unit and power generating plant
- testing electricity generating unit and power generating plant operations using diagnostic and testing techniques.

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:

- analysis of electricity generating unit and power generating plant faults
- arrangements of power production plant
- control of electricity generating unit energy generation
- coordination of electricity generating unit operations
- electricity generating unit and power generating plant components and interactions
- generator and electricity generating unit stability
- manuals
- electricity generating unit and power generating plant operation monitoring
- power generating plant and equipment, location and 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.

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