



Australian Government

UEPOPS355 Monitor the implementation of under frequency load shedding

Release: 1

UEPOPS355 Monitor the implementation of under frequency load shedding

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 implement and monitor under frequency load shedding for isolated and integrated generation network systems.

Under frequency load shedding is the deliberate shutdown of electric power in a part or parts of the power system to prevent the failure of the entire system. It is generally caused by overloading a power source or problems with a prime mover such as a turbine.

Competency in this unit requires the ability to plan work, set under frequency load shedding, respond to under frequency load shedding operation and the completion of all documentation. Individuals will, in general, work as an operator 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

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

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

1 Plan for load shedding	1.1 Safety issues Work, Health and Safety (WHS)/Occupational Health and Safety(OHS) regulations are identified, in accordance with workplace procedures and site requirements 1.2 Work tasks, load shedding plant and resource requirements are identified from relevant information and documentation, in accordance with workplace procedures 1.3 Checks are carried out on under frequency load shedding plant, in accordance with workplace procedures and site requirements
2 Set under frequency load shedding	2.1 Individual load source data is collated, assessed, evaluated and prioritised, in accordance with workplace procedures 2.2 Data is assessed against trends, in accordance with workplace procedures, to determine suitability for load shed selection 2.3 Load data is grouped and summed into stages of priority to match generator or unit output, in accordance with workplace procedures 2.4 Selected load shedding is implemented, in accordance with workplace procedures 2.5 Staged load data is monitored and recalculated to detect deviations from parameters, in accordance with workplace procedures
3 Respond to under frequency load shedding operation	3.1 Load data is monitored and selections are adjusted, in accordance with workplace procedures, to maintain values within permissible parameters 3.2 Stakeholders are consulted and corrective action is determined for load shedding deviations, in accordance with workplace procedures
4 Complete documentation	4.1 Load shedding status is reported, in accordance with

workplace procedures

- 4.2** 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 Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UEPOPS355B Monitor the implementation of under frequency load shedding.

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 UEPOPS355 Monitor the implementation of under frequency load shedding

Modification History

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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, performance criteria and range of conditions on at least two separate occasions and includes:

- analysing power generation plant and system using data using data analysis techniques and tools
- applying Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) requirements including:
- communicating with stakeholders
- implementing legislation, industry standards, codes of practice and regulations
- interpreting remote indications of power generation plant status
- monitoring operation of power generation plant and equipment
- planning and preparing power generation plant and/or equipment for operation
- recognising abnormal power generation plant operating conditions and determining corrective actions
- responding to under frequency load shedding operations including:
 - forecasting system load shifting
 - setting load shedding within operational parameters
- scheduling load shedding to match generator output completing documentation
 - emergency procedures
 - risk control measures
 - safe working practices
- using manufacturers' specifications and manuals
- working with permit to work system

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:

- legislation, industry standards, codes of practice and regulations
- manufacturers' specifications and manuals

- permit to work system
- power generation under frequency load shedding plant and equipment, its location and operating parameters
- typical arrangements of power production plant including power generation plant operating parameters and status
- under frequency load shedding system components and interactions including:
 - generator capacity
 - load shedding schemes
 - stakeholder communication
- 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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