



Australian Government

UEPOPS067 Monitor the implementation of under frequency load shedding

Release: 1

UEPOPS067 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 Electricity Supply Industry - Generation Sector Training Package Release 2.0.

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 complete all documentation. Individuals will, in general, work as an operator 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

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 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 Work requirements are identified from relevant personnel and documentation in accordance with workplace procedures |
| | 1.3 Checks are carried out on under frequency load shedding plant in accordance with workplace procedures |
| 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 to determine suitability for load shed selection in accordance with workplace procedures |
| | 2.3 Load data is grouped and summed into stages of priority to match generator and 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 adjusted to maintain values within permissible parameters in accordance with workplace procedures |
| | 3.2 Stakeholders are consulted and corrective action 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 UEP Electricity Supply Industry - Generation Sector Training Package Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UEPOPS355 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 UEPOPS067 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 Electricity Supply Industry - Generation Sector Training Package Release 2.0.

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 power generation plant and system 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 stakeholders
- implementing regulations, legislative requirements, codes of practice, manufacturers' recommendations and specifications, and environmental requirements
- interpreting remote indications of power generation plant status
- monitoring operation of power generation plant and equipment
- planning and preparing power generation plant and 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
- using 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 and performance criteria and include knowledge of:

- arrangements of power production plant, including power generation plant operating parameters and status
- manuals

- permit to work system
- power generation under frequency load shedding plant and equipment, location and operating parameters
- regulations, legislative requirements, codes of practice, manufacturers' recommendations and specifications, and environmental requirements
- 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

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 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=1715b9fa-e7bd-441c-bb8d-cf22c9c825a8>