ENERGY & ENVIRONMENT AWARDS

Qualification Specification

EEA Level 3 Certificate in Substation Fitter Construction Operations (Mechanical Plant)
610/5981/X

EEA Level 3 Certificate in Substation Fitter Construction Operations (Electrical Plant)
610/5998/5

EEA Level 3 Certificate in Substation Fitter Construction Operations (Remove and Refurbish)
610/5999/7

December 2025 v2.0

Contents

Updates to this Specification

Since the first publication of this Qualification Specification, the following updates have been made.

V1.1	Page 32	Comma added before MEWP in the range statements
V2.0	Pages 21 / 51 / 39	Unit 1135: Learning outcome 5 removed. AC 5.1 and 5.3 moved to unit 1142. AC 5.2 moved to unit 1140.
V2.0	Page 19	GLH and TQT amended and unit QAN number
V2.0	Page 38	GLH and TQT amended and unit QAN number
V2.0	Page 50	GLH and TQT amended and unit QAN number
V2.0	Page 30	Typo amended “arrest”

1 Qualification Overview

At a Glance Qualification Summary

Qualification titles	EEA Level 3 Certificate in Substation Fitter Construction Operations (Mechanical Plant) (610/5981/X) EEA Level 3 Certificate in Substation Fitter Construction Operations (Electrical Plant) (610/5998/5) EEA Level 3 Certificate in Substation Fitter Construction Operations (Remove and Refurbish) (610/5592/X)
Min. Guided Learning Hours (GLH)	EEA Level 3 Certificate in Substation Fitter Construction Operations (Mechanical Plant): **202 GLH** EEA Level 3 Certificate in Substation Fitter Construction Operations (Electrical Plant): **197 GLH** EEA Level 3 Certificate in Substation Fitter Construction Operations (Remove and Refurbish): **146 GLH**
Min. Total Qualification Time (TQT)	EEA Level 3 Certificate in Substation Fitter Construction Operations (Mechanical Plant): **303 TQT** EEA Level 3 Certificate in Substation Fitter Construction Operations (Electrical Plant): **280 TQT** EEA Level 3 Certificate in Substation Fitter Construction Operations (Remove and Refurbish): **220 TQT**
RQF Level	3
Qualification credit value	EEA Level 3 Certificate in Substation Fitter Construction Operations (Mechanical Plant): **30 Credits** EEA Level 3 Certificate in Substation Fitter Construction Operations (Electrical Plant): **28 Credits** EEA Level 3 Certificate in Substation Fitter Construction Operations (Remove and Refurbish): **22 Credits**
Assessment requirements	Each qualification is assessed by Portfolio of Evidence. There is an assessment strategy which underpins the qualification and some unit-specific evidence requirements.

Regulatory Body / Status	These qualifications are regulated by Ofqual, the independent qualifications regulator for England.

Energy & Environment Awards (EEA)

Energy & Environment Awards is an Ofqual recognised Awarding Organisation, offering End-point Assessments and Qualifications within the energy and utilities footprint.

Introduction

Energy & Environment Awards has secured recognition from Ofqual, the independent qualifications regulator for England, to offer the:-

- EEA Level 3 Certificate in Substation Fitter Construction Operations (Mechanical Plant)
- EEA Level 3 Certificate in Substation Fitter Construction Operations (Electrical Plant)
- EEA Level 3 Certificate in Substation Fitter Construction Operations (Remove and Refurbish)

These qualifications have been developed through consultation with key external stakeholders, including employers, training providers and technical experts.

This Qualification Specification provides guidance for approved Centres on how to consistently apply the ***Energy & Environment Awards Assessment Strategy for Level 3 Certificate in Substation Fitter Construction Operations*** (herein referred to as the ***Energy & Environment Awards Assessment Strategy for Substation Fitter***) along with unit content and relevant additional information to support the delivery of these qualification.

The ***Energy & Environment Awards Assessment Strategy for Substation Fitter*** is available to download from https://energyenvironmentawards.co.uk/qualifications/

Aims and Objectives of the Qualification

The purpose of the Level 3 Certificate in Substation Fitter Construction Operations qualification is to develop the learner's technical skills and underpinning knowledge in all aspects of Substation Fitter Construction Operations. There are three different pathways which allow the learner to specialise and achieve units according to their particular role and areas of responsibility; Mechanical Plant, Electrical Plant and Remove and Refurbish.

These qualifications are suitable for individuals who are employed as Substation Construction Fitter and are aged 16 or above. These qualifications contain the underpinning knowledge and skills that are required to deem a learner competent to be a Substation Construction Fitter. These qualifications have been designed and developed in accordance with legislative and industry requirements for the Power industry.

The qualification structures and units of achievement have been designed through consultation with employers, training providers and technical experts. The units have also been written to align with the core elements of the Power Industry – Substation Fitter apprenticeship.

2 Assessment

Assessment Strategy

Energy & Environment Awards have issued, and own, the ***Energy & Environment Awards Assessment Strategy for Substation Fitter*** which provides crucial information on the expected delivery, administration and quality assurance of the assessment for these qualifications.

Energy & Environment Awards have broken down the key elements of the assessment strategy in the sections which follow to make it easier for Energy & Environment Awards Centres to understand and follow. However, Centres are also required to familiarise themselves with the full content of the ***Energy & Environment Awards Assessment Strategy for Substation Fitter*** in order to comply with Energy & Environment Awards requirements, particularly in relation to the Portfolio of Evidence and the role of the Assessor and Internal Quality Assurer (herein referred to as IQA).

The information which follows should therefore be read in conjunction with the ***Energy & Environment Awards Assessment Strategy for Substation Fitter.***

Assessors

Centres must comply with both the qualification and sector experience requirements for Assessors, as outlined in the ***Energy & Environment Awards Assessment Strategy for Substation Fitter***, as part of the qualification-specific Centre approval

requirements. Assessors are responsible for making and recording assessment decisions in the Portfolio of Evidence.

Further information, advice and guidance relating to the Energy & Environment Awards expectations on Assessors and the Portfolio of Evidence can be found in the sections which follow.

Overview of Assessment Methods

These qualifications are assessed wholly by Portfolio of Evidence, underpinned by the ***Energy & Environment Awards Assessment Strategy for Substation Fitter*.**

Assessment Method: Portfolio of Evidence

Assessment Preparation

Assessors will need to prepare fully for supporting learners in their collation of evidence for the Portfolio of Evidence. It is our expectation that the Centre's Assessor will ensure the learner's Portfolio of Evidence meets the requirements of the ***Energy & Environment Awards Assessment Strategy for Substation Fitter*** and any unit-specific evidence requirements / guidance. In order to sufficiently prepare for the assessment, Centres, and specifically Assessors, will need to:-

1. Liaise with the learner's employer to provide clear expectations on their role within the assessment process, including any requirement to contribute to assessment evidence and/or to sign off pieces of evidence.
2. Fully understand the unit-specific assessment / evidence requirements and/or guidance, including any range statements included within the unit content.
3. Fully understand the requirements of the ***Energy & Environment Awards Assessment Strategy for Substation Fitter.***
4. Familiarise themselves with the information and documentation contained within the ***Energy & Environment Awards Substation Fitter Learner Assessment Guidance Pack*.**
5. Ensure each learner has a copy of the ***Energy & Environment Awards Substation Fitter Learner Assessment Guidance Pack*** for the qualification and understands how to use the documentation appropriately.

6. Seek approval from Energy & Environment Awards for the use of realistic work environments (RWE) and simulation as supporting evidence, where allowed within the individual unit.

Assessment

These qualifications are assessed wholly by a Portfolio of Evidence, which is a collection of pieces of evidence generated by the learner, which demonstrate a learner's competence and underpinning knowledge for each unit they are registered on. The ***Energy & Environment Awards Assessment Strategy for Substation Fitter*** outlines the Energy & Environment Awards requirements for ensuring the Portfolio of Evidence constitutes a valid measurement of the learner's skills and underpinning knowledge for the unit and/or qualification being assessed, including providing details of acceptable types of evidence that can be incorporated into the learner's Portfolio of Evidence. In addition to this, unit-specific evidence requirements and/or guidance are also stipulated in the individual unit within the Energy & Environment Awards Qualification Specification.

With evidence generation it is important to note that the learner's workplace should, where possible, be used as the assessment location and that naturally occurring workplace evidence is the primary source for determining competence. There may be exceptions to this, for example, where an environment similar to the learner's own workplace (for example another site) is allowed to be used to demonstrate competence where it is not possible within the learner's own workplace, as recognised in the ***Energy & Environment Awards Assessment Strategy for Substation Fitter*** as a realistic work environment (RWE). Similarly, some units allow the use of simulation where it is not possible to complete the work activity in a real work situation, for example a gas emergency. Individual units stipulate whether RWE and/or simulation is allowed and approved Centres wishing to deliver an assessment in an RWE or through simulation must have been approved by Energy & Environment Awards as having the specific, appropriate resources and site environment to use RWE or simulation according to the requirements of each unit.

Types of Evidence

The ***Energy & Environment Awards Assessment Strategy for Substation Fitter*** outlines some examples of suitable types of evidence for use within the learner's Portfolio. It is important to note that this list is not exhaustive but does provide a starting point for learners and Assessors to identify suitable pieces of evidence. With any piece of evidence it is important to include the following:-

- Details of the work activity undertaken by the learner or their role within the task where it has been completed as part of a group activity.
- Learner declaration to confirm that the evidence generated is the learner's own work with details of where a third party or additional source may have been used to support the evidence generated. The ***Energy & Environment Awards Substation Fitter Evidence Declaration Form*** within the ***Substation Fitter Learner Assessment Guidance Pack*** can be used for this purpose.
- Training provider and Employer declaration to confirm that the evidence provided is an accurate reflection of the learner's knowledge, understanding and/or competence and that it is the learner's own work (***Energy & Environment Awards Substation Fitter Evidence Declaration Form*** within the ***Energy & Environment Awards Substation Fitter Learner Assessment Guidance Pack***).
- Cross-reference mapping to indicate which learning outcomes and assessment criteria have been achieved through each piece of evidence (***Energy & Environment Awards Evidence Matrices*** within the ***Energy & Environment Awards Substation Fitter Learner Assessment Guidance Pack***).

As referenced above Energy & Environment Awards has provided documentation in the ***Energy & Environment Awards Substation Fitter Learner Assessment Guidance Pack*** for these qualifications. Although Centres may use their own documentation or electronic Portfolio systems if they prefer, provided that the content is in line with, and equivalent to, our requirements.

Assessment Decisions

The Assessor will review each piece of evidence in full, ensuring it meets the requirements of the ***Energy & Environment Awards Assessment Strategy for***

Substation Fitter and the individual unit requirements including learning outcomes and assessment criteria. The Assessor will determine which pieces of evidence best demonstrate the learner's knowledge, understanding and skills for each unit and cross reference these pieces of evidence to the relevant assessment criteria that they address on the unit-specific evidence matrix.

Energy & Environment Awards has provided an evidence matrix for each unit within these qualifications in the ***Energy & Environment Awards Substation Fitter Learner Assessment Guidance Pack*****.** Although Centres may use their own documentation or electronic portfolio systems for this purpose if they prefer.

In order to assess a learner as "competent" in the required skills and underpinning knowledge and understanding, Energy & Environment Awards would typically expect a learner to produce three pieces of evidence; one of which should be generated on a work site (unless this is not appropriate to the work activity being assessed and the unit allows for simulation or realistic working environment). Where possible, evidence should be collected from a range of sites and/or from different sources, this enables the learner to demonstrate that they have consistently applied the relevant skills and/or knowledge and understanding to their work activities. However, Energy & Environment Awards recognises that there may be occasions when fewer pieces of evidence or even one piece of evidence, can also fully meet these requirements. Similarly, a single piece of evidence may cover, or partially cover, the assessment criteria within more than one unit.

When a learner is deemed to be competent in an individual unit the Assessor needs to ensure the Energy & Environment Awards evidence matrix (or Centre-specific form) for the relevant unit is completed in full and is signed by the learner, the Assessor and the Employer. There is also space for the Centre's IQA to sign in line with the Centre's IQA sampling policy. The Centre will record the assessment decision as "Achieved" on QuartzWeb. QuartzWeb is the Energy & Environment Awards web based learner management system for Approved Centres.

All learners must be registered with Energy & Environment Awards through QuartzWeb in order for learners' achievement to be recognised and certificated.

Internal Quality Assurance

The Centre's IQA will sample learners' assessment decisions and documentation and observe assessment discussions between the Assessor and the learner according to the Centre's IQA sampling approach, which will have been approved by Energy & Environment Awards as meeting the quality assurance requirements for these qualifications.

IQAs will keep records of the assessments which are sampled in line with their IQA policy and process. These reports provide essential evidence for the Energy & Environment Awards External Quality Assurer (herein referred to as EQA) for determining whether the qualification is being assessed in line with the ***Energy & Environment Awards Assessment Strategy for Substation Fitter***, Energy & Environment Awards Centre approval requirements and the Centre's own quality assurance policies and procedures.

IQAs are also required to ensure consistency across the Centre's Assessors through monitoring assessment decisions, holding regular standardisation meetings and ensuring the ***Energy & Environment Awards Assessment Strategy for Substation Fitter*** is fully understood and being implemented appropriately. IQAs are also involved in the escalation and/or investigation of any issues or queries or potential malpractice relating to the assessment, grading decisions and the Assessor's occupational competence.

Further details about the role and responsibilities of the Centre's IQA are found in the ***Energy & Environment Awards Assessment Strategy for Substation Fitter.***

External Quality Assurance

Energy & Environment Awards externally quality assures the Level 3 Certificate in Substation Fitter Construction Operations qualifications through appointing each Centre an EQA, who is responsible for checking and monitoring the assessment and quality assurance practices within the Centre to ensure assessments are conducted and quality assured in a robust, consistent manner, in line with the ***Energy & Environment Awards Assessment Strategy for Substation Fitter***. The EQA does this through:-

- Approving Centres according to the Energy & Environment Awards qualification-specific Centre approval criteria and carrying out a visit as part of this approval, where required.
- Approving and monitoring where an assessment can be carried out in either a realistic work environment (RWE) or through simulation.
- Determining the sampling approach for each Centre, according to their risk, volume of learners and history as an approved Centre.
- Planning and conducting EQA visits to Centres, at least once a year. The frequency of these visits will again be determined on a risk-based approach and the volume of learners. An EQA may also visit a Centre more frequently where assessments are being conducted in a live work-based site situation rather than at a Centre in a simulated environment. EQA visits will enable the EQA to observe live assessments, sample learner's evidence and assessment decisions and to review internal quality assurance documentation and practices to ensure the Centre is delivering a robust internal quality assurance of the assessment decisions which Assessors make.
- Writing a report on their findings for both the Centre and Energy & Environment Awards which details the EQAs findings, including any areas where remedial action is required and an action plan to be agreed with the Centre.
- Providing advice and support to Centres in relation to meeting the requirements of the ***Energy & Environment Awards Assessment Strategy for Substation Fitter***.

3 Qualification Information

Unit Achievements

As you will see from the qualification structures in the section that follows all of the units in Group A are mandatory units which are common to all of the Substation Fitter Construction Operations qualifications. Once the learner has achieved these units with Energy & Environment Awards they do not need to complete them again if they decide to move onto a further Level 3 Certificate in Substation Fitter Construction Operations

qualification with Energy & Environment Awards, instead they can be exempt from having to achieve the unit a second time. Please see below for an example.

Piotr is a learner who has achieved the EEA Level 3 Certificate in Substation Fitter Construction Operations (Mechanical Plant) qualification and he has recently changed employers and would now like to complete the EEA Level 3 Certificate in Substation Fitter Construction Operations (Electrical Plant) qualification. From looking at the Qualification Structure he can see that he has achieved all of the units in Group A.

He now only needs to complete the two units in "Group B2: Electrical Plant" in order to achieve the EEA Level 3 Certificate in Substation Fitter Construction Operations (Electrical Plant) qualification.

Recognition of Prior Learning

Energy & Environment Awards has a comprehensive Recognition of Prior Learning (RPL) and Recognition of Prior Achievement (RPA) Policy, which all approved Centres have access to and is available at www.euias.co.uk/qualifications. This policy sets out our approach to the Recognition of Prior Learning (RPL) and Recognition of Prior Achievement (RPA), providing guidance on what constitutes acceptable evidence and the circumstances when RPL or RPA would, and would not be acceptable, in order to for us to meet our Regulatory requirements.

Recognition of Prior Learning applies to the acceptance of evidence that the learner has completed learning which may exempt them from certain elements of training but it will not exempt them from the assessment(s). This may, for example, apply to experienced workers who do not require as much training as new entrants to the role / sector.

Learners are also able to be registered on, and achieve, individual units where appropriate instead of completing the full qualification.

Pre-requisites

There are no pre-requisites for entry to this qualification.

Qualification Structures

Level 3 Certificate in Substation Fitter Construction Operations

In order to achieve the **Level 3 Certificate in Substation Fitter Construction Operations (Mechanical Plant)** qualification, learners must complete all mandatory units in Group A and all the mandatory units in Group B1. Learners may also choose the additional unit from Group B3, if they wish.

…….

In order to achieve the **Level 3 Certificate in Substation Fitter Construction Operations (Electrical Plant)** qualification, learners must complete all mandatory units in Group A and all the mandatory units in Group B2. Learners may also choose additional units from Group B3, if they wish.

…….

In order to achieve the **Level 3 Certificate in Substation Fitter Construction Operations (Remove and Refurbish)** qualification, learners must complete all mandatory units in Group A and the mandatory unit in Group B3.

…….

Group A: Mandatory units for all learners	
EEA Unit Ref:	**Unit Title:**
1135	Contribute effectively to substation work activities
1136	Maintain work site health safety and environmental compliance
1137	Install substation equipment

Group B: Pathway-specific mandatory units	
Group B1: Mandatory for Mechanical Plant	
EEA Unit Ref:	**Unit Title:**
1139	Install earthing associated with substations
1140	Prepare and assemble steel structures
Group B2: Mandatory for Electrical Plant	
EEA Unit Ref:	**Unit Title:**
1141	Install and terminate multi-core cables and containment systems
1144	Test installed substation equipment
1142	Inspect and test to commission electrical circuits in a substation
Group B3: Additional unit / Mandatory unit for Remove and Refurbish	
EEA Unit Ref:	**Unit Title:**
1143	Remove, refurbish and replace substation plant and apparatus

4 Unit Content

In each of the units there are some words which are emboldened in the assessment criteria. These emboldened words have a range statement associated with them, which appears at the end of the unit, which indicates what the learner must cover in their assessment for this unit. These range statements often refer to words or statements in the assessment criteria where there are multiple elements for the learner to be trained on and subsequently assessed on, or where the statement in the assessment criteria is very broad. They provide a focus for the learner and an indicator of what the learner must cover. For example, "**Power industry regulations"** includes Electricity at Work Regulations, The Electricity Safety, Quality and Continuity Regulations (ESQCR).

EEA Unit Ref:	1135
Ofqual Unit Ref:	D/651/8739
Unit Title:	Contribute effectively to substation work activities
Level:	3
Credit value:	3
GLH:	18
TQT:	32
Unit aim(s):	This unit is designed to develop the learner's underpinning knowledge and skills of issues contributing to safe, healthy and sustainable working practices in a substation environment, whilst recognising applicable legislation and standards.
Assessment requirements:	This unit is assessed by Portfolio of Evidence.
Relationship to NOS:	None

Learning Outcome: The learner will:	Assessment Criteria: The learner can:	
1. Know and understand the power network industry	1.1	Describe core **functions** and the structure of the power network industry
	1.2	Outline the role and responsibilities of the regulatory body
	1.3	Outline the key requirements of the **power industry regulations**
	1.4	Describe the **substation fitter roles** and responsibilities
	1.5	Describe the responsibilities of persons as defined in industry safety rules, including authorisation roles and responsibilities
	1.6	Explain the power network's **net zero strategy**
2. Know and understand how to undertake substation business operations	2.1	Explain how **information and digital technology** is used in substation work activities including hardware and software
	2.2	Outline key **regulatory requirements** associated with use of information and digital technology
	2.3	Outline key software packages used by companies to manage resources and plan work
	2.4	Identify how substation work activities may impact customers
3. Know and understand how to work effectively within a substation environment	3.1	Describe how to **plan** and prioritise own work using organisation and time management techniques
	3.2	Describe team working principles
	3.3	Outline the principles of equality, diversity and inclusion in the workplace
	3.4	Describe key communication techniques (including written),

		industry terminology and how to adapt style to audience
	3.5	Describe official communication systems in place for the issue and receipt of **safety document**.
	3.6	Explain the importance of accurate records and key documentation
4. Know and understand power engineering electrical networks	4.1	Explain how **power engineering electrical networks** operate
	4.2	Describe the properties and purpose of power engineering electrical **plant and apparatus** including**:** • transformers • switchgear • earthing devices • voltage control • automated equipment
	4.3	Describe the symptoms and causes of common faults on electrical power circuits, plant and apparatus
5. Be able to contribute effectively to substation work activities	5.1	Review **drawings, instructions and/or information** to understand the task to be completed
	5.2	Prioritise and plan tasks, considering safety, environmental impact, quality and cost
	5.3	Select and organise resources to complete tasks on time
	5.4	Identify apparatus to be worked on
	5.5	Demonstrate how to communicate with **others** to give and receive information

	5.6	Demonstrate how to apply team working principles to be an active member of a working party
	5.7	Produce or amend documents including: • handover notes • procedures • reports
	5.8	Carry out and record planned and unplanned learning and development activities
	5.9	Make recommendations for improvements to substation work activities including reducing costs and driving efficiencies
	5.10	Demonstrate how to supervise a working party
6. Be able to contribute effectively to substation work activities	6.1	Demonstrate how to select, check, prepare, use and store hand and power tools
	6.2	Demonstrate how to select, check, and prepare resources, including consumables
	6.3	Demonstrate how to use digital and information technology, including how to follow cyber security requirements

Range Statements:

Learning Outcome 1:

Functions include: generation, TNO, DNO, IDNO, ICP, supplier, generator etc

Power industry regulations include: Electricity at Work Regulations, The Electricity Safety, Quality and Continuity Regulations (ESQCR)

Net zero strategy include: Principles of sustainability. Impact of sites of special scientific interest, flora and fauna on work. Potential effects on the environment of companies and individuals not complying with good environmental practices.

Learning Outcome 2:

Information and digital technology include:

- Hardware; computers and mobile devices
- Software; email, word processing, databases, productivity and collaboration software, work and asset management systems

Regulatory requirements for use of IT and digital technology include General Data Protection Regulation (GDPR) and Cyber security.

Learning Outcome 3:

Plan – include understanding of constraints such as dependencies, critical path, 'not before' and 'no later than'

Safety Documents – include permit to Work, Limitation of Access and Sanction for Test.

Learning Outcome 4:

Power engineering electrical networks include: generation, transmission, distribution and transformation of system voltages.

Plant and apparatus include: the properties and purpose of transformers, switchgear, earthing devices, voltage control and automated equipment.

Learning Outcome 5:

Drawings, instructions and/or information may include, for example: work instructions, design specifications, utility plans, on-line search documents

Others include: colleagues, customers and stakeholders

Evidence Guidance:

The ***Energy & Environment Awards Assessment Strategy for Level 3 Substation Fitter Construction Operations*** includes a list of suitable evidence types for use within the learner's Portfolio of Evidence. This list is not exhaustive but is designed to provide an indication of what may be used as acceptable sources of evidence. Some sources of evidence will be more relevant to the unit content and the assessment of the learner's skills and/or knowledge than others.

It is a requirement that workplace evidence is used where possible.

For this unit, Energy & Environment Awards also allows assessment:-

✓ In a Realistic Work Environment

EEA Unit Ref:	1136
Ofqual Unit Ref.	F/651/5831
Unit Title:	Maintain work site health, safety and environmental compliance
Level:	3
Credit value:	8
GLH:	44
TQT:	81
Unit aim(s):	This unit allows learners to develop relevant health, safety and environmental knowledge so that work can be properly assessed, and appropriate risk-reduction methods can be implemented.
Assessment requirements:	This unit is assessed by Portfolio of Evidence.
Relationship to NOS:	

Learning Outcome: The learner will:	Assessment Criteria: The learner can:	
1. Know and understand the work site health, safety and environmental compliance requirements	1.1	Describe the purpose and key requirements of **health and safety regulations, standards and guidance**
	1.2	Describe the importance and purpose of risk assessments and method statements
	1.3	Describe the purpose and key requirements of the Environmental Protection Act
	1.4	Describe the importance of DSRs
	1.5	Explain the recycling and waste transfer requirements as part of organisational sustainability responsibilities
	1.6	Explain the safe handling requirements for insulating medium including: • containment • storage • disposal • spill / leak management escalation and reporting • specialist risk assessment
	1.7	Explain the safe handling requirements for **insulating medium** including: • regulations • procedures • certification • handling • reporting leaks
	1.8	Outline the **HSE guidance** and requirements for avoiding danger from underground and overhead utilities
2. Know and understand hazards and risks associated with substation work activities	2.1	Describe the hazards associated with work on or near electrical power networks

and sites	2.2	Explain the **dangers of electricity**, including how an electric shock can be received and associated emergency procedures
	2.3	Describe **hazards and controls** for access and egress of operational substation sites
	2.4	Describe the dangers associated with impressed voltage
3. Know and understand **safe working practices** and procedures	3.1	Describe safe manual handling techniques and requirements
	3.2	Describe the range of Personal Protective Equipment suitable to work activities
	3.3	Describe fire safety procedures and requirements
	3.4	Describe working in confined spaces principles
	3.5	Describe asset security requirements
	3.6	Describe the requirements for checking plant and vehicles
	3.7	Describe key methods for locating underground and overhead utilities
	3.8	Describe key methods for avoiding underground services
	3.9	Describe key methods for avoiding overhead exposed conductors

	3.10	Describe storage, transportation and safe use requirements for commercial gas
4. Know and understand safe working at height practices	4.1	Describe working at height requirements and considerations
	4.2	Explain safe methods of access and egress
	4.3	Explain hierarchy of methods
	4.4	Describe inspection, operation and maintenance requirements of mobile elevating working platforms, tower scaffolding and ladders
	4.5	Describe basic inspection, operation and maintenance requirements for the range of **working at height Personal Protective Equipment**
	4.6	Describe rescue from height equipment and methods
5. Know and understand emergency procedures	5.1	Describe **emergency** procedures
	5.2	Describe emergency first aid requirements
6. Know and understand safe handling techniques for tools, equipment and materials	6.1	Describe hand tools and power tools application and operation requirements
	6.2	Describe selection and care considerations for insulated tools
	6.3	Describe sub-station **high-voltage (HV) and low-voltage (LV) equipment** and its purpose
	6.4	Describe **types of insulating mediums** used in high voltage equipment
	6.5	Assess the advantages and disadvantages of **different types of insulating mediums** used in high voltage equipment

	6.6	Describe safe systems of work on high voltage and low voltage equipment to ensure safety from the inherent dangers of the system
	6.7	Describe **methods** of **cooling transformers** and their advantages and limitations
	6.8	Assess key **considerations** for the handling or transportation of insulating oil (bulk and drums)
7. Be able to comply with work site health, safety and environmental requirements	7.1	Demonstrate how to receive and clear a safety document
	7.2	Demonstrate how to brief a working party
	7.3	Identify hazards and risks and apply control measures
	7.4	Apply health and safety procedures which comply with **regulations, standards and guidance**
	7.5	Demonstrate how to respond in the event of an emergency first aid situation, including situations where there is an electrical risk
8. Be able to maintain the work site's safety, security and sustainability	8.1	Apply work site **security measures**
	8.2	Take measures to leave power work environments in a safe condition
	8.3	Apply sustainability principles
	8.4	Segregate waste for reuse, recycling and waste transfer
	8.5	Demonstrate how to conduct plant or vehicle checks

	8.6	Make recommendations for improvements to substation work activities including ways to improve network safety and sustainability
9. Be able to perform substation fitter work activities in a safe way	9.1	Demonstrate how to use **working at height access equipment**
	9.2	Select, inspect and use working at height Personal Protective Equipment
	9.3	Escalate issues outside limits of responsibility
	9.4	Complete work and safety records accurately
	9.5	Describe the role of the Vehicle Marshall within Substation installation activities
	9.6	Outline the limitations of the Vehicle Marshall role

Range Statements:

Learning Outcome 1:

Insulating medium: include oil, vacuum, MIDEL, EconiQ and SF6

Health and safety regulations, standards and guidance include: asbestos awareness, Construction Design Management (CDM), Health and Safety at Work Act, Control of Substances Hazardous to Health (COSHH), Lifting Operations and Lifting Equipment Regulations (LOLER), lone working, Management of Health and Safety at Work, Provision and Use of Work Equipment Regulations (PUWER), Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR), Electricity at Work Regulations (EAWR), Electricity Safety Quality Continuity Regulations (ESQCR), Model Distribution Safety Rules (MDSR) and warning signs and symbols.

HSE guidance include: HSG47 (Avoiding danger from underground services) and GS6 (Avoiding danger from overhead power lines)

Learning Outcome 2:

Dangers of electricity include: direct contact, induced (impressed) voltage and arcing.

Hazards and controls include: security, pre-entry checks, logging in requirements, automatic or remotely operated equipment, and fire suppression systems.

Learning Outcome 3:

Safe Working Practices include vehicle check-lists, buried and overhead services plans, visual clues such as previous excavation 'scarring', other equipment nearby.

Learning Outcome 4:

Working at height Personal Protective Equipment include: harnesses, fall restraint and arrest equipment

Learning Outcome 5:

Emergency: include location of first aid personnel and equipment, environmental incident response procedures and equipment (e.g. spill kits).

Learning Outcome 6:

Cooling transformers include: natural, pump forced, and fan forced. The methods of control and associated protection if overheating occurs.

High-voltage (HV) and low-voltage (LV) equipment include: air compressors, busbars, circuit breakers, current transformers and voltage transformers, earthing systems and associated equipment, electrical switchgear, multi-core cabling, HV metering , isolators, primary equipment and connections, protection and control systems, telecontrol and automation equipment, transformer cooling, transformers, substation batteries, and AVCS systems (automatic voltage control systems).

Types of insulating mediums include: insulating oil, SF6 gas, vacuum, air, and SF6 alternatives

Methods include: dielectric strength, moisture, acidity, polychlorinated biphenyl (PCB), and carbonisation.

Considerations include: reducing risk of spillage, bunding requirements, hygiene, barrier creams, specialist PPE, pumps, storage, labelling containers, manual handling, and disposal.

Learning Outcome 7:

Regulations, standards and guidance to include the following but this is not an exhaustive list: Demarcate the work area, working at height, confined spaces, COSHH

Learning Outcome 8:

Security measures include, for example: **set alarm system, remove climbing aides**

Learning Outcome 9:

Working at height access equipment to include: scaffold, MEWP and ladders.

Evidence Guidance:

The ***Energy & Environment Awards Assessment Strategy for Level 3 Substation Fitter Construction Operations*** includes a list of suitable evidence types for use within the learner's Portfolio of Evidence. This list is not exhaustive but is designed to provide an indication of what may be used as acceptable sources of evidence. Some sources of evidence will be more relevant to the unit content and the assessment of the learner's skills and/or knowledge than others.

It is a requirement that workplace evidence is used where possible.

For this unit, Energy & Environment Awards also allows assessment:-

✓ In a Realistic Work Environment

EEA Unit Ref:	1137
Ofqual Unit Ref.	M/651/5836
Unit Title:	Install substation equipment
Level:	3
Credit value:	7
GLH:	57
TQT:	70
Unit aim(s):	This unit enables learners to develop skills and knowledge in substation installation methods including the planning and execution of positioning substation equipment.
Assessment requirements:	This unit is assessed by Portfolio of Evidence.
Relationship to NOS:	

Learning Outcome: The learner will:	Assessment Criteria: The learner can:	
1. Know and understand the installation requirements for substation equipment	1.1	Describe battery installation and checking requirements
	1.2	Describe the requirements for **fixing systems**
	1.3	Outline the installation requirements of: • plant • metal structures • apparatus – internal and external
	1.4	Describe plant and equipment locking devices and interlocking system requirements
	1.5	Describe the role of engineering representations, drawings and graphical information in installation activities
2. Be able to install substation equipment	2.1	Follow lifting plan
	2.2	Install batteries and check function
	2.3	**Position substation apparatus**
	2.4	Locate and fix high voltage switchgear
	2.5	Apply mechanical connections, **fixings** and welding techniques
3. Be able to replace and/or remove equipment	3.1	Demonstrate how to replace components within equipment
	3.2	Demonstrate how to **remove** cabling and dismantle equipment

Range Statements:

Learning Outcome 1:

Fixing systems include: unistrut, rawl bolts, chemical fixing anchors and proof loading, shims, and grouting for base plates.

Learning Outcome 2:

Substation apparatus include: Transformer, switchgear, auxiliary equipment

Mechanical fixings: Torque values

Position: include understanding of centre of gravity, stability of equipment whilst being moved/positioned.

Learning Outcome 3:

Removing parts include understanding of use of manufacturer's information such as tools required, torque settings, cable bending constraints.

Evidence Guidance:

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It is a requirement that workplace evidence is used where possible.

For this unit, Energy & Environment Awards also allows assessment:-

✓ In a Realistic Work Environment

EEA Unit Ref:	1139
Ofqual Unit Ref.	J/651/5833
Unit Title:	Install earthing associated with substations
Level:	3
Credit value:	4
GLH:	28
TQT:	38
Unit aim(s):	This unit provides learners with an understanding of earthing systems and their installation using appropriate tools and techniques. The learner will also develop skills in interpreting drawings and instructions as well as adopting safe working practices.
Assessment requirements:	This unit is assessed by Portfolio of Evidence.
Relationship to NOS:	

Learning Outcome: The learner will:	Assessment Criteria: The learner can:	
1. Know how to install earthing associated with substations	1.1	Describe the **system earthing requirements**
	1.2	Explain how to use engineering representations and drawings to install earthing
	1.3	Prove plant, equipment, cabling and system is safe to work on
	1.4	Identify correct **resources**
2. Be able to install earthing associated with substations	2.1	Read, interpret and follow specified drawings to complete tasks
	2.2	Use Cable Avoidance Tool to confirm safe installation of **earth** rod
	2.3	Lay and fix earth tape within excavation and to plant and equipment
	2.4	**Integrity test** installation to company practice

Range Statements:

Learning Outcome 1:

System earthing requirements: selection of materials and equipment for above and below ground earthing systems, installation, mechanical connections, welding, and brazing

Resources: tape, fittings, anchors, protection (capping / anti-corrrosion)

Learning Outcome 2:

Earthing, for example: additional earths, equipment earths and drain earths

Integrity test: Electrical – integrity low resistance testing; Mechanical – integrity testing

Evidence Guidance:

The ***Energy & Environment Awards Assessment Strategy for Level 3 Substation Fitter Construction Operations*** includes a list of suitable evidence types for use within the learner's Portfolio of Evidence. This list is not exhaustive but is designed to provide an indication of what may be used as acceptable sources of evidence. Some sources of evidence

will be more relevant to the unit content and the assessment of the learner's skills and/or knowledge than others.

It is a requirement that workplace evidence is used where possible.

For this unit, Energy & Environment Awards also allows assessment:-

✓ In a Realistic Work Environment

EEA Unit Ref:	1140
Ofqual Unit Ref.	K/651/8741
Unit Title:	Prepare and assemble steel structures
Level:	3
Credit value:	8
GLH:	55
TQT:	82
Unit aim(s):	This unit allows learners to develop skills, knowledge and understanding of the planning, execution and acceptance criteria for installing substation equipment.
Assessment Requirements:	This unit is assessed by Portfolio of Evidence.
Relationship to NOS:	

Learning Outcome: The learner will:	Assessment Criteria: The learner can:	
1. Know how to interpret information relating to the work and resources when assembling steel structures	1.1	Identify, use and/or comply with relevant information from drawings, specifications, digital information, 3D modelling, schedules method statements, risk assessments and manufacturers' information
	1.2	Outline **current regulations** governing electrical infrastructure relating to assembly of steel structures
	1.3	Describe organisational procedures to report and rectify inappropriate information and unsuitable resources
	1.4	Explain key principles of **mechanical theory** in power engineering.
2. Know how to comply with relevant legislation and official guidance when assembling steel structures	2.1	Describe own responsibilities regarding potential **accidents, health hazards** and the environment while working in the workplace: • with tools and equipment • with materials and substances
	2.2	Describe own responsibilities regarding potential accidents, health hazards and the environment while working below ground level
	2.3	Describe own responsibilities regarding potential accidents, health hazards and the environment while working at height
3. Know and understand safe and healthy working practices when assembling steel structures	3.1	Explain what the accident reporting procedures are and who is responsible for making reports
	3.2	Explain why and when **health and safety control equipment** should be

		used for the assembling of steel structures
	3.3	Describe the types, purpose and limitations of each type of health and safety control equipment
4. Be able to maintain safe and healthy working practices when assembling steel structures	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with current legislation and organisational requirements
	4.2	Demonstrate compliance with given information and relevant legislation when assembling steel structures in relation to safe use, storage and handling of access equipment, materials, tools and equipment
	4.3	Demonstrate compliance with given information and relevant legislation when assembling steel structures in relation to specific risks to health
5. Know how to minimise the risk of damage to the work and surrounding area when assembling steel structures	5.1	Describe how to protect work from damage
	5.2	Explain why it is important to protect work from damage
	5.3	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance
	6.1	Demonstrate how to

6. Be able to minimise the risk of damage to the work and surrounding area when assembling steel structures		protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.
	6.2	Maintain a clear and tidy work space
	6.3	Dispose of **waste** in accordance with current legislation
7. Know how to work in accordance with the work programme	7.1	Outline the purpose of the work programme and how times are estimated
	7.2	Explain why deadlines should be kept in relation to types of productivity targets and associated timescales
	7.3	Outline organisational procedures for reporting circumstances which will affect the work programme
	7.4	Describe the needs of other occupations when assembling steel structures
8. Be able to comply with the contract information to assemble steel structures to the required specification	8.1	Demonstrate how to complete work within the estimated, allocated time
	8.2	Demonstrate the following work skills when preparing and assembling steel structures: • Measuring • Marking out • Aligning • Cutting • Fitting • Finishing • Positioning • Securing
	8.3	Use and maintain hand tools, portable power tools and ancillary equipment
	8.4	**Prepare and assemble**

	steel structures
8.5	Apply and follow work practices to tag technical queries (TQs) or defects to structures
8.6	Apply and follow safe and healthy work practices to prepare and assemble load and non-load bearing wall frames, floor frames, support structures and roofs to the given specification
8.7	Determine when specialist skills and knowledge are required and report accordingly
8.8	Identify and follow the installation quality requirements
8.9	Report problems and establish the authority needed to rectify them
8.10	Demonstrate how to work with, around and in close proximity to plant and machinery
8.11	Demonstrate how to direct and guide the operations and movement of plant and machinery
8.12	Apply and follow safe and healthy work practices to work at height
8.13	Demonstrate safe use of access equipment

Range Statements:

Learning Outcome 1:

Current regulations include adopting utility (G81) specifications and Electricity Networks Association (ENA) standards.

Mechanical theory include: Mass, force and weight. Parameters of mechanical systems. The components of hydraulic and pneumatic systems. Statics and forces. Energy, work and power. The parameters of material tensile strengths. The parameters of mechanical

advantage. The lever principle and theorem of movement.

Learning Outcome 2:

Accidents and health hazards include a thorough understanding of risk assessment principles.

Learning Outcome 3:

Health and safety control equipment identified by the principles of prevention; to include:-

- Collective protective measures
- Personal Protective Equipment (PPE)

Learning Outcome 6:

Waste include understanding of the classification of waste (inert, hazardous, non-hazardous) and the need to ensure segregation.

Learning Outcome 8:

AC8.4: For at least one of the following to given working instructions: wall frames, floor frames, support structures, roofs, support insulator structures, switchgear structures, auxiliary structures.

Evidence Guidance:

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It is a requirement that workplace evidence is used where possible.

For this unit, Energy & Environment Awards also allows assessment:-

✓ In a Realistic Work Environment

EEA Unit Ref:	1141
Ofqual Unit Ref.	L/651/5835
Unit Title:	Install and terminate multi-core cables and containment systems
Level:	3
Credit value:	3
GLH:	20
TQT:	26
Unit aim(s):	This unit allows learners to develop knowledge and understanding of the relationship between wiring diagrams and cable termination schedules. Learners will also develop skills in installing multi-core cables and containment systems.
Assessment Requirements:	This unit is assessed by Portfolio of Evidence.
Relationship to NOS:	

Learning Outcome: The learner will:	Assessment Criteria: The learner can:	
1. Know and understand the electrical installation and termination requirements	1.1	Describe types of cable containment management systems and installation requirements
	1.2	Describe the AC/DC supply power cable and power wiring **installation requirements**
	1.3	Describe the multi-core wiring requirements including: • installation • **termination** • labelling • identification system • clean and tidy work area
2. Be able to install multi-core cables and containment systems	2.1	Produce wiring core sheets from wiring diagrams
	2.2	Select, position and connect **multi-core wiring**
	2.3	Select, position and install **containment management system**
	2.4	Select, position and install AC/DC supply power cable and power wiring
3. Be able to terminate multi-core cables and containment systems	3.1	Demonstrate how to terminate multi-core cables and containment systems

Range Statements:

Learning Outcome 1 and 3:

Termination include: glanding , looming, crimping, and ferruling

Installation requirements: include engineering representations, drawings, and graphical information: application and importance.

Learning Outcome 2:

Multi-core wiring include: containment fittings, fixings, positioning bending, grouping spacing protection.

Containment management system for example: Unistrut, ladder tray and trunking

Evidence Guidance:

The ***Energy & Environment Awards Assessment Strategy for Level 3 Substation Fitter Construction Operations*** includes a list of suitable evidence types for use within the learner's Portfolio of Evidence. This list is not exhaustive but is designed to provide an indication of what may be used as acceptable sources of evidence. Some sources of evidence will be more relevant to the unit content and the assessment of the learner's skills and/or knowledge than others.

It is a requirement that workplace evidence is used where possible.

For this unit, Energy & Environment Awards also allows assessment:-

✓ In a Realistic Work Environment

EEA Unit Ref:	1144
Ofqual Unit Ref.	M/651/5836
Unit Title:	Test installed substation equipment
Level:	3
Credit value:	2
GLH:	16
TQT:	20
Unit aim(s):	This unit allows learners to develop an understanding of tests to be carried out, the reasons for testing and the appropriate equipment to be used. Learners will also develop skills necessary to test installed equipment and to take appropriate action.
Assessment Requirements:	This unit is assessed by Portfolio of Evidence.
Relationship to NOS:	

Learning Outcome: The learner will:	Assessment Criteria: The learner can:	
1. Know how to test installed equipment	1.1	Explain **testing procedures** including: • voltage • polarity • insulation resistance • three-phase testing • phase rotation • earth loop impedance • continuity
	1.2	Describe diagnostic fault-finding techniques
	1.3	Describe mechanical testing requirements
2. Be able to test installed equipment and take action as required	2.1	Conduct insulation testing using an insulation test instrument
	2.2	Use **test instruments**
	2.3	Conduct **mechanical testing**
	2.4	Conduct alignment checks
	2.5	Apply diagnostic fault-finding techniques
	2.6	Interpret test results and action as required

Range Statements:

Learning Outcome 1:

Testing procedures ensure an understanding of the reasons for carrying out respective tests.

Learning Outcome 2:

Test instruments for example: volt meters, multi-function tester and resistance tester

Mechanical testing for example, torque and proof loading

Evidence Guidance:

The ***Energy & Environment Awards Assessment Strategy for Level 3 Substation Fitter Construction Operations*** includes a list of suitable evidence types for use within the learner's Portfolio of Evidence. This list is not exhaustive but is designed to provide an indication of what may be used as acceptable sources of evidence. Some sources of evidence

will be more relevant to the unit content and the assessment of the learner's skills and/or knowledge than others.

It is a requirement that workplace evidence is used where possible.

For this unit, Energy & Environment Awards also allows assessment:-

✓ In a Realistic Work Environment

EEA Unit Ref:	1142
Ofqual Unit Ref.	J/651/8740
Unit Title:	Inspect and test to commission electrical circuits in a substation
Level:	3
Credit value:	5
GLH:	42
TQT:	51
Unit aim(s):	This unit will give the learner an understanding of inspection and testing of low voltage (<1000v AC) circuits. Learners will also develop skills in inspecting electrical systems and equipment.
Assessment Requirements:	This unit is assessed by Portfolio of Evidence.
Relationship to NOS:	

Learning Outcome: The learner will:	Assessment Criteria: The learner can:	
1. Know and understand key theories underpinning power engineering	1.1	Explain key principles of **mathematical theory** in power engineering.
	1.2	Explain key principles of **electrical theory** in power engineering
2. Be able to confirm safety of the system and substation equipment prior to completion of inspection, testing and commissioning in line with regulatory requirements	2.1	Carry out safe isolation procedures for electrical installations
	2.2	Ensure the health safety of self and others during inspection, testing and commissioning
	2.3	Check the **safety** of electrical systems prior to the commencement of inspection, testing and commissioning
3. Be able to inspect electrical systems and equipment	3.1	Assess whether the safe system of work is appropriate to the work activity
	3.2	Carry out a visual **inspection** in accordance with the installation specification, the IET Wiring Regulations and IET Guidance Note 3
	3.3	Complete a schedule of inspections in accordance the IET Wiring Regulations and IET Guidance Note 3
4. Be able to test and commission electrical systems and equipment	4.1	Select the correct test instruments and their accessories for tests
	4.2	Carry out tests in accordance with the installation specification and the IET Wiring Regulations and manufacturers' instructions
	4.3	Analyse and verify test results, reporting all findings
	4.4	Complete, in accordance with the IET Wiring Regulations and IET Guidance Note 3: • Electrical installation certificates

	• schedules of inspections • schedules of test results • minor electrical installation works certificates
4.5	Demonstrate the operation of circuits, equipment and components are in accordance with the installation specification and client requirements
4.6	Demonstrate to the client the operation of the circuits, equipment and components are in accordance with the installation specification and client requirements.

Range Statements:

Learning Outcome 1:

Mathematical theory include: Round numbers, scientific notation, percentages and ratios. Areas, perimeters, volumes and surface areas of simple shapes. Scales, tables, graphs and charts. Pythagoras' Theorem and sin, cos, and tan in right-angled triangles. Substitution of numerical values into simple engineering formulae. The sequence of arithmetic operations.

Electrical theory include: Circuit technology. Magnetism and electromagnetism. Transformers. Principles of voltage, current and power – the relationship between these and why electricity is transmitted and distributed at high voltage.

Learning Outcome 2:

Safety – ensure an understanding that checking for dead is, in fact classed as live working until such testing has proven dead, and that individuals engaged upon such testing are assessed as competent and appropriately authorised.

Learning Outcome 3:

Inspection – ensure an understanding of principles for inspection.

Evidence Guidance:

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It is a requirement that workplace evidence is used where possible.

For this unit, Energy & Environment Awards also allows assessment:-

✓ In a Realistic Work Environment

EEA Unit Ref:	1143
Ofqual Unit Ref.	T/651/5838
Unit Title:	Remove, refurbish and replace substation plant and apparatus
Level:	3
Credit value:	4
GLH:	27
TQT:	37
Unit aim(s):	The purpose of this unit is to develop the learner's knowledge and understanding of organisational and quality requirements for dismantling and replacing substation equipment. Learners will develop skills in preparing to dismantle substation plant and equipment, remove, refurbish and replace substation plant and apparatus.
Assessment Requirements:	This unit is assessed by Portfolio of Evidence.
Relationship to NOS:	

Learning Outcome: The learner will:	Assessment Criteria: The learner can:	
1. Know and understand the organisational requirements for dismantling, refurbishing and replacing substation plant and apparatus	1.1	Explain organisational procedures to dismantle, refurbish and replace **substation plant and apparatus**
	1.2	Explain the safety and environmental **hazards** to be considered when **planning** to dismantle, remove, refurbish and replace substation plant and apparatus
	1.3	Describe organisational procedures for the safe removal of substation plant and apparatus, including, where appropriate **disposal** and/or **storage**
2. Be able to prepare to dismantle, refurbish and/or replace substation plant and apparatus	2.1	Use organisational documentation and work instructions to identify the work location and work activity
	2.2	**Plan** the activities required for dismantling, removing, refurbishing and/or replacing substation plant and apparatus
	2.3	Carry out a site specific risk assessment in accordance with health and safety regulations
	2.4	Select and wear appropriate Personal Protective Equipment (PPE) for the job role and activities
	2.5	Identify the apparatus to be dismantled, refurbished and/or replaced in line with organisational procedures
	2.6	Select suitable tools and equipment required to dismantle, refurbish and/or replace the substation apparatus
	2.7	**Inform individuals** who be directly and indirectly affected by the work activities of the intended work plan
3. Be able to dismantle, refurbish and/or	3.1	Confirm the system is safe to work

replace substation plant and apparatus in line with organisational procedures		on and that all necessary **safety documentation** is in place
	3.2	Implement control measures to meet safe control systems
	3.3	Dismantle, remove, refurbish and replace plant and apparatus in line with work plan
	3.4	Monitor control measures to ensure risks are minimized
	3.5	Confirm the finished work meets organisational requirements and quality standards
	3.6	**Record** the results of work implemented
	3.7	Provide information to update safety system records
	3.8	Resolve problems within limits of own areas of responsibility
	3.9	Report problems outside of limits of own responsibility to designated personnel
4. Be able to leave the work area in a safe condition according to regelation and legislation	4.1	Store **tools** and test **equipment** on completion of work activity
	4.2	**Ensure proper disposal** of waste materials and hazardous substances using properly licensed waste carriers where appropriate
	4.3	Check the safe condition of the work area

Range Statements:

Throughout the unit:

Plant and apparatus examples include: historic AIS apparatus, Oil insulated apparatus , control protection apparatus, transformers or switchgear

Learning Outcome 1:

Planning – ensure understanding of safety documents such as Permit to Work, sanction for Test, Limitation of Access and risk assessments, method statements.

Hazards: to include, but not limited to, hazards associated with the removal of equipment, including asbestos and other environmental hazards.

Disposal – to include disposal in line with approved guidelines / industry practice.

Storage – to include preservation methods for certain pieces of equipment, including reference to environmental and sustainability requirements.

Learning Outcome 2:

Plan – ensure understanding of safety documents such as Permit to Work, sanction for Test, Limitation of Access and risk assessments, method statements. This also includes identifying where third party assistance is required.

Inform individuals – include members of the public who may be affected by electricity outages particularly vulnerable persons.

Learning Outcome 3:

Safety documentation – for example Permit to Work (PTW) or Limitation of Access (LoA)

Remove – to include safe removal of different types of equipment.

Learning Outcome 4:

Tools and equipment – ensure an understanding of the reasons for keeping tools and equipment calibrated and inspected in line with organisational and legal requirements.

Dispose – to include where this is conducted by a third party.

Evidence Guidance:

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It is a requirement that workplace evidence is used where possible.

For this unit, Energy & Environment Awards also allows assessment:-

✓ In a Realistic Work Environment

5 Awarding

Grading

In order to achieve the qualifications listed in this Qualification Specification, learners must “pass” each of the units which comprise the specific qualification. Assessment decisions will be subject to internal and external quality assurance.

Certification

Energy & Environment Awards issues a qualification certificate of achievement for each qualification that has been achieved by the learner. Energy & Environment Awards offers learners an electronic certificate available to the Centre to download from Quartzweb, following the processing of a successful claim, or a physical certificate by exception and at an additional cost, which will be sent directly to the registered Centre. Learners who do not achieve the full qualification, but who have successfully achieved individual unit(s) will be able to receive an electronic unit certificate.

The date of certification is based on the achievement of the final unit.

6 Energy & Environment Awards Policies

Energy & Environment Awards has published comprehensive policies, which are made available to approved Centres and learners on the Energy & Environment Awards Qualifications website at: https://energyenvironmentawards.co.uk/policies-and-fees/

Contact Us

Please do not hesitate to contact the Energy & Environment Awards Qualifications team for any query relating to the delivery, assessment, quality assurance or certification of these qualifications.

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