



ENERGY &
UTILITY SKILLS

Skills for a greener world

EUIAS Level 4 End-point Assessment Apprentice Guide for

Electrical Power Networks Engineer

(Control Engineer; Electrical Project Engineer and
Operational Delivery Engineer)

QAN 603/7295/3

EUIAS Level 4 End-point Assessment

Apprentice Guide for

Electrical Power Networks Engineer

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Updates to this Guide

Since the first publication of the EUIAS Electrical Power Networks Engineer Apprentice Guide, the following updates have been made.

Version	Date first published	Section updated	Page(s)
V2.0	July 2023	Rebranded and new template	All
V1.0	March 2022	First published	All


At A Glance Component 1: Knowledge Test

Date(s):	
Time:	
Location:	
Examination Conditions:	Controlled by an invigilator
Additional Requirements:	
Assessed and marked by:	EUIAS


At A Glance Component 2: Practical Observation

Date(s):	
Time:	
Location:	
Examination Conditions:	With an employer technical expert from your place of work or training environment
Additional Requirements:	
Assessed and marked by:	Employer Technical Expert/EUIAS


At A Glance Component 3: Technical Interview based on a work log of evidence

Date(s):	
Time:	
Location:	
Examination Conditions:	With an EUIAS assessor accompanied by an employer technical expert your place of work or training environment
Additional Requirements:	
Assessed and marked by:	Independent assessor/EUIAS

Introduction



EUIAS has been selected by your employer to carry out end-point assessment (EPA) and it is our job to ensure that you are assessed fairly.

How This Apprenticeship Guide Is Organised

- ✓ Section 1:
What is in the Apprenticeship Guide?
- ✓ Section 2:
An Apprentice's End-point Assessment Journey
- ✓ Section 3:
End-point Assessment Components

How to Use This Guide



This guide has been split into 3 sections. You can dip into each section that you are working on where you will find useful information, practical advice, tips you need and useful dates to successfully complete your EPA.

Throughout we have used headings and cross referenced to our EPA Electrical Power Networks Engineer (EPNE) Specification which provides details of the EPA components.

Section 1: The Basics

What is an Apprenticeship Standard?



An apprenticeship standard is a description of your apprenticeship and it is based on the Electrical Power Networks Engineer standard, which was written by employers. It contains the electrical power networks engineer's job profile, and describes the knowledge, skills and behaviours (KSBs):

- Knowledge: (as part of KSBs) – specific information, technical detail, and 'know-how' identified as part of the apprenticeship standard that must be evidenced during your end-point assessment
- Skills: (as part of KSBs) – the practical application of knowledge identified as part of the apprenticeship standard that must be evidenced during end-point assessment
- Behaviours (as part of KSBs) – specific mindsets, attitudes or approaches identified as part of the apprenticeship standard that must be evidenced during end-point assessment

The standard can be accessed via the link below:

<https://www.instituteforapprenticeships.org/apprenticeship-standards/electrical-power-networks-engineer-v1-0>

What is an Assessment Plan?

An Assessment Plan is also written by employers and provides details of what is required for you to pass your end-point assessment. It includes details of what you will be assessed on, how each assessment will take place, what methods will be used and who will assess you.

EUIAS designed the end-point assessment (EPA) to meet the requirements of the Assessment Plan. The Assessment Plan can be accessed via the link below:

<https://www.instituteforapprenticeships.org/media/1457/electrical-power-network-engineer-assessment-plan.pdf>

What is an end-point assessment (EPA)?

The end-point assessment is the assessments you take at the end of your apprenticeship. Your apprenticeship will typically take 30 - 36 months. You will typically spend 36 months on-programme working towards your standard. After this you have a Gateway meeting with your employer or training provider to confirm you are ready for the end-point assessments. The words end-point means that you will be assessed at the end of your on-programme (training) to confirm you have met the standard. Your EPA will be taken in the last 6 months. The end-point assessments consist of 3 components:

- Knowledge Test
- Practical Observation
- Technical Interview based on your work log of evidence

Each component has a provisional grade and each grade is carried forward to award a final grade. You must pass all 3 components to pass your apprenticeship.

The final grade can be a Fail, Pass or Distinction.

What are the Gateway Requirements?

Gateway is a meeting where your employer, training provider and you ensure that you are confident that you can demonstrate all the KSBs defined in the apprenticeship standard and you are ready for EPA. After the meeting, your training provider will confirm the outcomes of the Gateway meeting by sending a signed document to EUIAS. The document confirms that you have met the following Gateway requirements:

- achieved a minimum level 2 in English and maths
- satisfactory completion of the formal training plan agreed
- compiled a work log of evidence with a mapping document, which the technical interview will be based on

Your training provider will send copies of these documents to EUIAS.



What is the EPA Specification?

EUIAS Level 4 End-point Assessment Specification for

Electrical Power Networks Engineer
(Control Engineer; Electrical Project Engineer and
Operational Delivery Engineer)
QAN 603/7295/3

The end-point assessment specification provides details of the assessment methods used in your EPA, which:

- KSBs that are covered by each assessment
- KSBs amplification and guidance

The Specifications for your job role (Control Engineer; Electrical Project Engineer and Operational Delivery Engineer) can be accessed via the link below:

Control Engineer:

https://www.euias.co.uk/wp-content/uploads/2022/04/EPNE-EPA-Control-Engineer_V1.1_Introduction.pdf

Electrical Project Engineer:

<https://www.euias.co.uk/wp-content/uploads/2022/04/EPNE-EPA-Electrical-Project-Engineer-V1.1.pdf>

Operational Delivery Engineer:

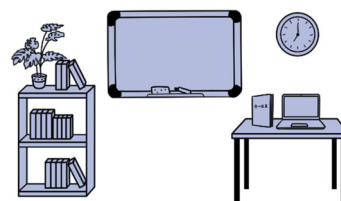
<https://www.euias.co.uk/wp-content/uploads/2022/04/EPNE-EPA-Operational-Delivery-Engineer-V1.1.pdf>



Section 2: Apprentice EPA Journey

Let us Begin Your EPA Journey.

Find a quiet place and read on....



Electrical Power Network's Engineer is a core and options apprenticeship standard. You must be trained and assessed against the core and one of the following specialisms:

- Control
- Electrical Project
- Operational Delivery

Your EPA journey consists of 3 elements:

- A training programme with on the job, off the job elements, typically 30 - 36 months
- Gateway meeting window
- End-point Assessment (EPA) typically 6 months

Your journey begins with the training program. Your employer and training provider are responsible for this part. This is where you will gain the required Knowledge, Skills and Behaviours (KSBs).

How will you be assessed in the end-point assessment?

You will be assessed on the following components, which **must** be taken in this order:

- 1. Knowledge Test**
- 2. Practical Observation**
- 3. Technical Interview based on your work log of evidence**

It is important for you to keep a record of when your 3 components are scheduled. We suggest you use the 'At a Glance' tables on page 5.

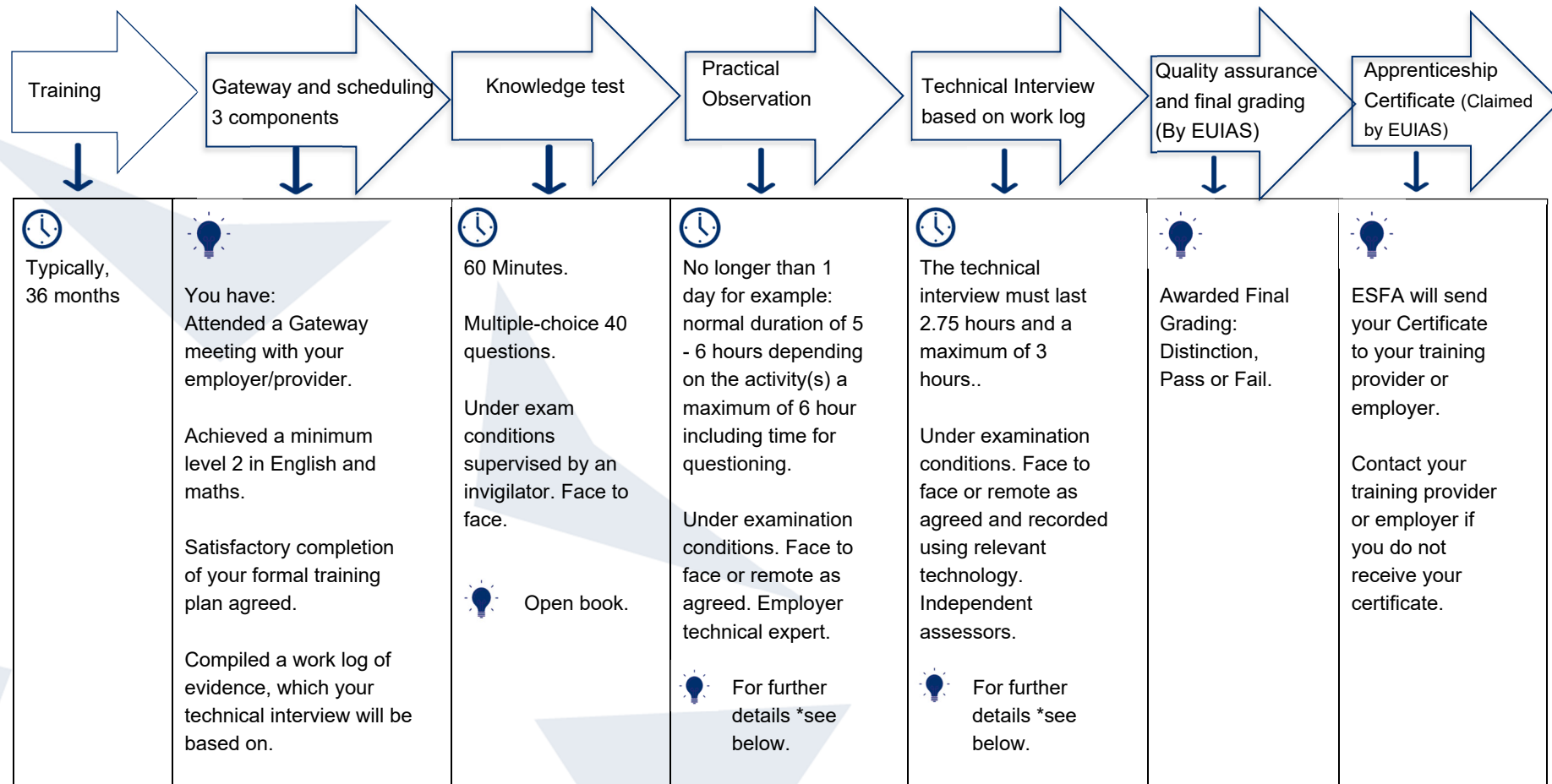
You must pass all 3 components to achieve this qualification. For further guidance refer to Section 3 End-point Assessment Components.

Reasonable adjustments

A reasonable adjustment is any action that helps to reduce the effect of a disability or difficulty that places you at a substantial disadvantage during assessments. If this applies to you make sure you tell your training provider who can make an application for a reasonable adjustment to EUIAS on your behalf.

Your EPA Journey in a Diagram

The diagram below illustrates the order of your EPA journey from the day you register to your final certification:



*For further details refer to Section 3 in this Apprentice Guide. Or Section 2 of the Specification

Section 3: End-point Assessment Components

Now let us continue your journey through EPA. There are 3 components that you must pass to be awarded a certificate.

Component 1: Knowledge Test

Overview

The knowledge test is a multiple-choice test and is paper based. You will have 60 minutes to complete the test. The test consists of 40 questions.

The multiple-choice questions will have four possible answers of which one will be correct.

Step-by-Step Guide





The table below provides a step-by-step guide on how the knowledge test (multiple-choice test) will be carried out:

Who will start and finish your knowledge assessment?	You will sit your knowledge test (multiple-choice test) in the presence of an invigilator.														
How will the question appear?	<p>Here is an example of how the question will appear:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr style="background-color: #e0e0e0;"> <th colspan="2" style="padding: 5px;">Question 1</th> </tr> <tr> <td colspan="2" style="padding: 5px;">In a workplace, who is responsible for maintaining health and safety?</td> </tr> <tr style="background-color: #e0e0e0;"> <th colspan="2" style="padding: 5px;">Possible answers</th> </tr> <tr> <td style="padding: 5px;">a)</td> <td style="padding: 5px;">Employers</td> </tr> <tr> <td style="padding: 5px;">b)</td> <td style="padding: 5px;">Safety managers</td> </tr> <tr> <td style="padding: 5px;">c)</td> <td style="padding: 5px;">Most senior person on-site</td> </tr> <tr> <td style="padding: 5px;">d)</td> <td style="padding: 5px;">Everyone</td> </tr> </table> <p>You must select one answer that you think is correct. You will be provided with an answer sheet where you will be expected to shade in the answer you have selected. Here is an example:</p>	Question 1		In a workplace, who is responsible for maintaining health and safety?		Possible answers		a)	Employers	b)	Safety managers	c)	Most senior person on-site	d)	Everyone
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c)	Most senior person on-site														
d)	Everyone														



	ENERGY & UTILITIES INDEPENDENT ASSESSMENT SERVICE																								
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Candidate ID</td> <td style="width: 50%;">Attempt</td> </tr> <tr> <td>Last Name</td> <td></td> </tr> <tr> <td>First Name</td> <td></td> </tr> <tr> <td>Exam Date</td> <td>Paper</td> </tr> <tr> <td>Centre Name</td> <td></td> </tr> <tr> <td>Centre Number</td> <td></td> </tr> </table>	Candidate ID	Attempt	Last Name		First Name		Exam Date	Paper	Centre Name		Centre Number													
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	<p>MARKING INSTRUCTIONS</p> <p> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> ANSWER COMPLETED CORRECTLY </p> <p>Examples of how NOT to mark your examination sheet. <i>These will not be recorded</i></p> <p> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> DO NOT partially shade the answer circle. </p> <p> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> DO NOT use ticks or crosses. </p> <p> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> DO NOT use circles. </p> <p> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/> DO NOT shade over more than one circle. </p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td>1</td><td><input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></td> <td>11</td><td><input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></td> <td>21</td><td><input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></td> <td>31</td><td><input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></td> </tr> <tr> <td>2</td><td><input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></td> <td>12</td><td><input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></td> <td>22</td><td><input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></td> <td>32</td><td><input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></td> </tr> <tr> <td>3</td><td><input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></td> <td>13</td><td><input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></td> <td>23</td><td><input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></td> <td>33</td><td><input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></td> </tr> </table>	1	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	11	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	21	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	31	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	2	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	12	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	22	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	32	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	3	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	13	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	23	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	33	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
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	<p> Always have a go even if you are not sure that it is the correct answer.</p>																								
Can I take any resources into the exam room?	The test is open book which means that you can refer to reference books, training materials, company policies and procedures, work logs or any other materials. You will be provided with stationery on the day. You can take into the exam a scientific non-programmable calculator.																								
Can I have access to the internet?	No access to the internet is allowed and this means you must not take your SMART watch into the exam room.																								
How will the knowledge assessment be organised for me?	<p>Locations: Your knowledge test (multiple-choice test) will take place at your employer’s or training provider’s premises or a suitable venue.</p> <ul style="list-style-type: none"> You will take the test in a quiet space and in the presence of an invigilator Your test will be scheduled by your employer or training provider with the EUIAS If you fail the knowledge test (multiple-choice test), you can re-sit or re-take the failed test at your employer’s 																								

	<p>discretion. There are no limits to the number of re-sits or re-takes you can take but it is important to revise and ensure that you are confident with the knowledge you are being tested on</p>												
<p>What criteria will I have to learn?</p> <p>AND</p> <p>How many questions will be asked on each criteria?</p>	<p>The knowledge test (multiple-choice test) questions are knowledge based and sample the 6 core knowledge criteria. Below is a list of the knowledge criteria, assessed in the knowledge assessment along with the range of questions that will be allocated to a knowledge assessment paper:</p> <table border="1" data-bbox="470 734 1385 1986"> <thead> <tr> <th data-bbox="470 734 630 891">Number of Questions</th> <th data-bbox="630 734 1385 891">Knowledge</th> </tr> </thead> <tbody> <tr> <td data-bbox="470 891 630 1126">7 - 9</td> <td data-bbox="630 891 1385 1126">K1: Electrical power principles electrical power principles: alternating current and direct current theories; dynamic and static engineering systems; application of electrical and electronic circuit theory; the use of complex wave forms</td> </tr> <tr> <td data-bbox="470 1126 630 1261">7 - 9</td> <td data-bbox="630 1126 1385 1261">K2: Three-phase systems with consideration being given to harmonics and their effects and the methods of power distribution</td> </tr> <tr> <td data-bbox="470 1261 630 1406">7 - 9</td> <td data-bbox="630 1261 1385 1406">K3: Electricity network design, capabilities, complexities, operations and topologies; operation and limitations of plant and equipment</td> </tr> <tr> <td data-bbox="470 1406 630 1507">7 - 9</td> <td data-bbox="630 1406 1385 1507">K4: The operation of the electricity network in normal and fault conditions</td> </tr> <tr> <td data-bbox="470 1507 630 1986">8 - 10</td> <td data-bbox="630 1507 1385 1986">K5: Safe systems of work and risk management; the application of Electricity Supply Standards, Regulations including environmental requirements. These are Health and Safety at Work Act 1974, Electricity at Work Regulations 1989, Management of Health & Safety at Work Regulations 2003, Control of Substances Hazardous to Health (COSHH) Regulations 2002, The Electricity Safety, Quality and Continuity Regulations 2002, The Environmental Protection Act 1990</td> </tr> </tbody> </table>	Number of Questions	Knowledge	7 - 9	K1: Electrical power principles electrical power principles: alternating current and direct current theories; dynamic and static engineering systems; application of electrical and electronic circuit theory; the use of complex wave forms	7 - 9	K2: Three-phase systems with consideration being given to harmonics and their effects and the methods of power distribution	7 - 9	K3: Electricity network design, capabilities, complexities, operations and topologies; operation and limitations of plant and equipment	7 - 9	K4: The operation of the electricity network in normal and fault conditions	8 - 10	K5: Safe systems of work and risk management; the application of Electricity Supply Standards, Regulations including environmental requirements. These are Health and Safety at Work Act 1974, Electricity at Work Regulations 1989, Management of Health & Safety at Work Regulations 2003, Control of Substances Hazardous to Health (COSHH) Regulations 2002, The Electricity Safety, Quality and Continuity Regulations 2002, The Environmental Protection Act 1990
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	<p>4 - 6 K10: The key interfaces of the electricity network</p>
<p>What should I do to prepare for the knowledge assessment?</p>	<p> Remember the questions have been written to reflect the electrical power network's engineer's role as a whole and are not focussed on specific plant, machinery, or employer-specific processes. For amplification and guidance refer to Section 2 of the EPNE Specification.</p> <p>You should be prepared to:</p> <ul style="list-style-type: none"> • revise the knowledge criteria listed above • ask your employer or training provider for additional questions that they have prepared to support you • attend the knowledge test which will last 60 minutes <p> While on-programme, the employer or training provider must ensure you are:</p> <ul style="list-style-type: none"> • familiar with all areas assessed by the knowledge test as listed above • supported in completing a practice test and provide you with constructive feedback to enable you to identify areas you need to carry out further revision in

Practice Component 3: Knowledge test



You should have an opportunity to have a practice knowledge test which mirrors the real assessment. The practice knowledge test would be set up using the structure in the table above by your employer or training provider. The feedback provided will assist you with preparing for the actual knowledge test.

Component 2: Practical Observation

Overview

You must successfully complete your knowledge test before you move onto completing your practical observation.


A practical observation involves an employer technical assessor, appointed by EUIAS observing and questioning you undertaking a practical activity in a real working environment. You must be allowed to demonstrate the application for the relevant core and specific job role knowledge, skills and behaviours (KSBs). The practical task(s) must be capable of being completed by a competent electrical power network's engineer in the role of:

- **Control Engineer** you will be observed safely managing a 'network desk', in-line with their Authorisation, in planned and unplanned situations demonstrating the control of network outages and their implications, identifying risks and how they have been minimised
- **Electrical Project Engineer** you will be observed undertaking engineering activities on a 'live' project demonstrating that it will meet safety, time, budget and stakeholder requirements including how project designs have been implemented, any changes made with the rationale for them and produce final construction plans
- **Operational Delivery Engineer** you will be observed working in-line with Authorisation requirements for network, plant and apparatus. Responsible for the planning, management and control of agreed operational and safety requirements in line with specified job tasks to include issue of "safety from the system documentation", engineering activities and control of working parties. On completion of task return network, plant and apparatus back to the control of the network owner following approved company protocols

Step-by-Step Guide



The table below provides a step-by-step guide on how the practical observation will be carried out:

<p>Structure of your practical observation</p>	 <p>Typically no longer than one day, and the actual time allowed will be based on the comparable time that an industry competent worker would take to achieve successful task(s) completion. For example:</p> <ul style="list-style-type: none"> • normal duration of 5 – 6 hours may be allocated depending on the activity(s) a maximum of 6 hours including time for questioning and must involve you working on your role specific task <p>Refer to pages 16-23 in the EPNE Specification (Control Engineer; Electrical Project Engineer and Operational Delivery Engineer) for the full list of KSBs to be covered in your practical observation.</p> <p>Your practical observation will be managed and marked out of 100 by the independent assessor.</p> <p>There may be breaks during your practical observation to allow you to move from one location to another and for meal/comfort breaks. Where breaks occur, the clock will be paused. The assessment time is not reduced.</p>
<p>Where will the assessment take place?</p>	<p>Your practical observation must be conducted:</p> <ul style="list-style-type: none"> • on actual plant and equipment in a real working environment • in your normal place of work in a suitable area provided you can work unhindered
<p>What knowledge, skills and behaviours (KSBs) do I have to demonstrate</p>	<p>Core knowledge</p> <p>K6 Company requirements with regard to project management tools, techniques and processes</p> <p>K9 Company business planning and resource control measures</p>

during the
practical
observation?

Core Skills:

S1 Comply with company and industry health, safety and environmental standards, regulations, company operating procedures and working practices (relating to the health, safety and environmental practices used within the sector)

S2 Ensure that all safety considerations are incorporated and evident in all working practices (relating to the preparation and monitoring of safety practices during the observation)

S4 Produce timely communications providing information to stakeholders both in writing and verbally in relation to their role activities

S8 Use company IT systems to provide accurate and reliable data to support business decisions (relating to the use of IT systems and equipment during the course of their job role)

S11 Uses company risk tools and techniques to evaluate and predict the reliability of engineering systems and equipment (relating to the identification and control of risks)

Control Engineer Role Specialist Skills

CE1 Remotely control the electrical network, in accordance with operating procedures and safety rules to ensure the safe and efficient operation of the power system

CE2 Control all outages and network access requests ensuring risks to the network and system security are minimised

CE3 Manage planned and fault operations and activities on the network to provide a safe and secure electricity supply

CE4 Undertake work in complex, dynamic and reactive environments and provide technical/operational guidance to the rest of the business

CE8 Work effectively under appropriate Control Engineer Authorisation in-line with company requirements

Electrical Project Engineer Role Specialist Skills



EP1 Project manage activities to ensure projects are delivered on time, meet stakeholder and budget requirements

EP2 understand and work to project designs and interpret requirements to fit the specific environment the project is being constructed in

EP3 Manage stakeholder relations and produce final construction plans

EP5 Be Authorised to work on the electricity network in-line with company/asset owner requirements

EP6 Issue, review and communicate to all site personnel the agreed safe systems of works associated with the activities being carried out.

EP7 Ensure the completion of final hand back documentation to the agreed specifications and timescales

Operational Delivery Role Specialist Skills

OD1 Plan, manage and undertake a range of engineering activities and operations to the electricity network, to meet design, safety, time and commercial requirements

OD2 Be Authorised to work on the electricity network in-line with company/asset owner requirements


OD4 Take responsibility for and control others who may be working on the network

OD5 Issue, review and communicate to all site personnel the agreed safe systems of works associated with the activities being carried out

OD6 Ensure the completion of final hand back documentation to the agreed specifications and timescales

Core Behaviours:

B1 Health, Safety and Environment - follows health, safety and environmental policies and procedures and is prepared to challenge unsafe behaviour using appropriate techniques to ensure the protection of people and property when working alone

	<p>and/or with teams. Demonstrates high concentration and the desire to reduce risks through regular monitoring and checking information</p> <p>B3 Interpersonal Skills - works well with people from different disciplines, backgrounds and expertise. Takes others' needs and concerns into account and supports them to accomplish an activity safely and on time.</p> <p>B5 Risk Awareness - has the embedded desire to reduce risks through systematic monitoring and checking of information identifying mitigation actions on an on-going basis</p> <p> For amplification and guidance refer to the EPNE Specification link on page 9.</p>
<p>What tasks will I have to cover?</p>	<ul style="list-style-type: none"> • The practical task must allow you to undertake the activities required for a practical observation. For further details refer to 'Knowledge, Skills and Behaviours (KSBs) Coverage' in the role specific specification, refer to link on page 9.
<p>What resources can I use?</p>	<p>Equipment and resources needed for the observation must be:</p> <ul style="list-style-type: none"> • provided by your employer or training provider • a suitable premises • the plant, machinery, equipment and PPE required for the job • in good and safe working condition <p>Relevant work instructions/manuals must be available for you to use in hard copy or electronically.</p>
<p>How many questions will I be asked?</p>	<p>The employer technical expert:</p> <ul style="list-style-type: none"> • will ask open questions to assess the related underpinning knowledge. There are no stipulated number of questions that will be asked • may ask questions to follow in order to seek clarification from you
<p>Who will assess me?</p>	<p>An employer technical expert, appointed by EUIAS.</p>

Provisional Grading	The employer technical expert will award a provisional grade. You must pass ALL the pass criteria in order to achieve a pass.
Overall grading for this component	Fail, Pass or Distinction.

Practice Component 2: Practical Observation

You should have an opportunity to have a practice practical observation which mirrors the real assessment. A practice practical would be set up for you using the structure in the table above by your employer or training provider.

Component 3: Technical Interview based on Work Log of Evidence

Overview

You must successfully complete your knowledge test and your practical observation before completing your technical interview.


The technical interview is based on your work log of evidence. It is to allow you to demonstrate how you have met the KSBs in order to carry out your occupational role as an electrical power networks engineer effectively and safely. The technical interview allows for testing of responses where there are a range of potential answers that cannot be tested through the knowledge test.



Step-by-Step Guide

The table below provides a step-by-step guide on how the technical interview based on your work log of evidence will be carried out:

<p>Who will assess me?</p>	<p>1 independent assessor, appointed by EUIAS will conduct the technical interview.</p> <p>1 representative from your employer or training provider is allowed to be present in the room whilst the technical interview is being conducted which would normally be the employer assessor who conducted your practical observation. The employer assessor:</p> <ul style="list-style-type: none"> • must not amplify or clarify points made by you • role is to provide context for the independent assessor with clarifications around specific company policies and procedures • following the interview, will be asked by the independent assessor to join in a discussion about the interview and the independent assessor will assign a provisional mark
<p>How will the technical interview be organised?</p>	<p>Locations: Your technical interview will take place at your employer's premises or a suitable venue.</p>

	 <p>Time: Your technical interview must last 2.75 hours and a maximum of 3 hours.</p> <p>Your Technical Interview will be:</p> <ul style="list-style-type: none"> • a discussion between you and the independent assessor • face to face or remote, as agreed • assessed and outcomes will be recorded by the assessor on official EUIAS interview documents • recorded using the relevant technology such as Microsoft Teams or an audio recording device
<p>What topics will I have to cover?</p>	<p>For further details refer to 'Knowledge, Skills and Behaviours (KSBs) coverage in the EPNE (Control Engineer; Electrical Project Engineer and Operational Delivery Engineer) Specification on pages 28 – 38. A link to the EPNE Specification is available on page 9.</p>
<p>How many questions will I be asked?</p>	<ul style="list-style-type: none"> • The assessor will ask a set of questions to explore your level of knowledge, skills and behaviours for completing activities in each scenario • Standardised open questions will be asked based on the contents of the evidence in your work log • Set questions which maybe contextualised to the contents of your work log • Follow-up questions in order to seek clarification
<p>Provisional Grading</p>	<p>The independent assessor will award a provisional grade. You must pass ALL the pass criteria in order to achieve a pass.</p>
<p>Overall grading for this component</p>	<p>Fail, Pass or Distinction.</p>

Work Log of Evidence Requirements

The requirements are as follows:

Work Log Mapping Document

You must map your work log of evidence to the KSBs covered by the technical interview. You must include a mapping document at the front of your work log that clearly references the location of the evidence in your work log.

For further guidance on how to map refer to:

- Section below 'How do I organise my work log of evidence and map it to the mapping document?'
- MOET Role Specific Specification Section 5: Guidance on work log of evidence and apprentice mapping
- Apprentice Guide: Appendix B for the work log mapping document

[How do I organise my work log of evidence and map my evidence?](#)

Step-by-Step Guide

You must include a work log mapping document and place it at the front of your work log, see table above for guidance and where to locate the work log mapping document.

Your work log is not assessed. It serves two purposes:

- The independent assessor reviews your work log before the technical interview to help focus and contextualise their questions
- You should carefully prepare, index and map your work log as this will further support you during your technical interview. Your organised work log will allow you with ease to refer to examples and discuss the evidence with the independent assessor



[What should I include in my work log?](#)

Quality vs quantity

You should be supported in selecting and mapping evidence for your work log by your employer or training provider.

We would advise you to choose the best pieces of evidence and map them to each KSB which will be covered during your technical interview. To be confident of meeting the KSB, you should aim to have two/three pieces of evidence mapped to each KSB.

The work log evidence **must contain**:

- a mapping document that is mapped against the relevant KSBs that will be assessed by the technical interview. A template has been produced which you can use to collect and map your evidence. A copy of the template is included, see Appendix B 'Work Log Mapping Document'
- at least one piece of quality evidence relating to each KSB. This piece of quality evidence must demonstrate the KSBs as outlined in Section 2 of this Specification which will be assessed by the technical interview based on the work log
- evidence that covers all KSBs required, and this would normally come from evidence relating to **at least 5 holistic jobs**
- written accounts of activities that have been completed and referenced against the knowledge, skills and behaviours supported by appropriate photographic evidence and work products, for example work instructions, safety documentation, company policies and procedures as appropriate to the activities
- **progress review documentation** - reviews which should be completed and recorded to determine progression towards competence across the entire occupational Standard

Examples of acceptable evidence:

- quality pieces selected
- demonstrations of work carried out over a period of time and include evidence of work carried out within the last three months of the on-programme period
- a minimum of 2 and no more than 3 activities accrued out by you that demonstrates the higher order knowledge, skills and behaviours
- where practicable this should include and clearly labelled:
 - photographs
 - images

- diagrams
- job descriptions and witness evidence/ testimony
- situations that have been difficult and challenging, and how these have been overcome e.g. equipment breakdown which has results in a change in working practice while still adhering to company procedures
- any employer contributions must focus on direct observation of evidence (e.g. review/witness statements) of competence rather than opinions

The above is not a definitive list. You can include other relevant evidence sources.



You **must not** include in your work log any methods of self-assessment.

Evidence must be:

- produced by you (authentic)
- relevant to the standard (K, S or B) that it is mapped to
- produced during the time you were carrying out your on-programme training

What can I do to prepare for the technical interview based on the work log?

You should:

- be familiar with the structure of your work log
- know the KSBs covered by the technical interview
- know where you have mapped your KSBs by referring to your work log mapping document
- ensure there is quality evidence to cover every KSB in the technical interview
- practise mapping evidence and completing the evidence mapping grid
- know how you will be graded

The role of your employer or training provider

Employers or training providers are expected to support you in preparing your work log by:

- clarifying responsibility for supporting you in selecting and mapping evidence for your work log, including the role of employer coaches/mentors where applicable
- advising you on which pieces of evidence you should select to ensure that when it is looked at as a whole, your evidence provides coverage of all the required elements of the standard (KSBs) assessed in the technical interview

- supporting the mapping of your evidence and production of your mapping document
- authenticating evidence you provide is valid
- signing off your work log
- submitting your work log to EUIAS as part of Gateway

Practice Component 2: Technical Interview based on Work Log of Evidence

You should have an opportunity to have a practice interview which mirrors the real assessment. The practice technical interview based on your work log of evidence would be set up using the structure in the table above by your employer or training provider.

Overall grading

Your apprenticeship will be graded distinction, pass or fail. The final grade will be determined by collective performance in the three assessment components.

The knowledge test, practical observation and technical interview are all marked separately and awarded a fail, pass or distinction.

The knowledge test is based on the percentage score achieved. The grade and mark for the practical observation and technical interview is based on the number and level of criteria achieved.

Grades from individual assessment components will be combined in the following way to determine your overall EPA grade as a whole.

Component	Distinction	Pass	Fail
Knowledge Test	90% or greater	80 – 89%	79% or less
Practical Observation	85% or greater	60 – 84%	59% or less
Technical Interview	85% or greater	60 – 84%	59% or less

The scoring criteria that will be applied for each assessment criteria along with additional details can be found in Section 3 of this Specification.

The overall grading for the EPNE standard is based on the grades in the individual components as follows:

- Distinction – If a Distinction is awarded in all 3 components
- Pass – If a combination of a Pass or Distinction is awarded across the 3 components
- Fail – If a Fail is awarded for at least one of the component

Section 4: Resits and retakes

If you fail one or more EPA components you can re-sit or a re-take the failed component at your employer's discretion. Your employer needs to agree that a re-sit or re-take is appropriate. A re-sit does not need further learning, but a re-take does. You should have a supportive action plan to prepare for your re-sit or re-take.

Your employer and EUIAS will agree the timescale for your re-sit or re-take. Failed EPA component(s) must be re-sat or re-taken within the 6 months month end-point assessment period, otherwise the EPA will need to be re-sat or re-taken in full.

Re-sits and re-takes will not be offered to you if you wish to move from pass to a higher grade.

You will get a maximum EPA grade of pass for a re-sit or re-take.

The EUIAS resit and re-take policy can be found at:

<https://www.euias.co.uk/end-point-assessment/policies-and-fees/>



Section 5: Appendices

Appendix A: Glossary

Appendix B: Work log Mapping Document

Appendix A: Glossary

Amplification – provides more detail on how individual knowledge, skills or behaviours statements should be interpreted. Where the KSB statements, themselves are deemed self-explanatory, no amplification is provided. Assessment may include questions on anything identified in the amplification

Behaviours – mindsets, attitudes or approaches needed for competence. Whilst these can be innate or instinctive, they can also be learnt. Behaviours tend to be very transferable. They may be more similar across occupations than knowledge and skills. For example, team worker, adaptable and professional#

Elements – are the knowledge, skills and behaviours and what is needed to competently undertake the duties required for an occupational standard

Guidance – is only provided where it is required to support interpretation of the KSB statements

Gateway – the stage of the apprenticeship where the apprentice, employer and trainer determine whether the apprentice is ready to undertake the End-Point Assessment

Independent Assessor – Will holistically assess the knowledge, skills and behaviours (KSBs) that you have been learnt throughout the apprenticeship. Their role as an Independent Assessor would involve assessing components 2 (practical assessment) and 3 (technical interview based on your work log of evidence)

Knowledge – the information, technical detail, and ‘know-how’ that someone needs to have and understand to successfully carry out the duties. Some knowledge will be occupation-specific, whereas some may be more generic

Options / Pathways – a specialist route within an occupational standard that builds on the occupational competence for a new entrant to the occupation

Skills – the practical application of knowledge needed to successfully undertake the duties. They are learnt through on and/or off-the-job training or experience

Standard – An occupational standard is a description of an occupation. It contains occupational profile, and describes KSBs needed for someone to be competent in the occupation’s duties. The occupational standards are developed by employers for occupations that meet the Institute for Apprenticeships & Technical Education current criteria. For further details refer to:

<https://www.instituteforapprenticeships.org/apprenticeship-standards/electrical-power-networks-engineer-v1-0>

Topic - is a collection of elements grouped into a theme e.g., Health and Safety

Appendix B: Work log Mapping Document

Introduction

Throughout the on-programme part of the apprenticeship, you will need to compile a work log of evidence to support the requirements of the technical interview. The evidence within the work log will need to be mapped by you to the KSB requirements using the mapping document below.

The independent assessor will use the mapping document to review the evidence in your work log in preparation for the technical interview. The independent assessor will not assess your work log.

The work log mapping document below consists of the core requirements.

Your next steps

1. Complete all the details on the first page and include employer details of where relevant competencies from your experience at work was gained
2. Ensure each piece of evidence is signed off by your tutor/supervisor/mentor and lead provider (employer or training provider). You can use a number of different types of evidence to demonstrate your competence as described in Section 5 of the Specification – ‘What to include in the work log?’. For further guidance, you must seek advice from your tutor/supervisor/mentor and lead provider
3. Map evidence to the criteria in the following pages using a referencing system indicating where the evidence for the criteria is located in your work log e.g., work based evidence Job 1 (J1) page 5 paragraph 2. This will allow the independent assessor to locate the section or specific piece of evidence being discussed with you during the technical interview
4. Place the work log mapping document at the front of the work log of evidence
5. Your lead provider must make arrangements for EUIAS to have access to your work log including the work log mapping document at Gateway

Work Log Mapping Document

Mapping Sign off on Work Log Completion:

Place this work log mapping document at the front of your work log of evidence.

Apprentice Full Name (Print)	Apprentice Signature	Training Provider (Company)	Training Provider Signatory	Date of Sign Off

Core Knowledge

Ref.	Apprenticeship Standard Criteria	WORK LOG EVIDENCE REFERENCE (Apprentice Input)		
		1	2	3
K7	Company engineering policies appropriate to their role			
K8	Engineering problems including how to identify the problem, gather and analyse all relevant information, provide and implement a workable solution and monitoring its effectiveness			
K9	Company business planning and resource control measures			
Assessor Comments:				



Core Skills

Ref.	Apprenticeship Standard Criteria	WORK LOG EVIDENCE REFERENCE (Apprentice Input)		
		1	2	3
S3	Apply asset management, design, planning, control, electrical project, or operational engineering principles as appropriate to their role to maintain and improve the integrity, safety and longevity of the transmission/distribution electrical network			
S5	Read, understand and interpret technical information relative to their role, identified in company strategies and policies and work in compliance with technical specifications			
S6	Produce clear and precise reports in relation to their activities to line management, other business departments and/or to external stakeholders			
S7	Develop and agree project plans to undertake their activities. These plans will contain clear objectives, budgets, desired outcomes and timescales. Also included will be implementation criteria, monitoring process controls and evaluation records			
S9	Demonstrate that their work activities support the business to achieve its regulatory incentive mechanisms			
S10	Provide information to support business planning processes in relation to their role activities			
Assessor Comments:				



Core Behaviours

Ref.	Apprenticeship Standard Criteria	WORK LOG EVIDENCE REFERENCE (Apprentice Input)		
		1	2	3
B2	Stakeholder management			
B4	Analysing and solving problems			
B6	Planning and organising			
Assessor Comments:				



Pathway: Control Engineer Role Specific Skills

Ref.	Apprenticeship Standard Criteria	WORK LOG EVIDENCE REFERENCE (Apprentice Input)		
		1	2	3
CE5	Agree and co-ordinate the work of others to maximise network availability and minimise network risks			
CE6	Escalate significant network incidents throughout the business as appropriate (monitoring of real time impacts on the system)			
CE7	Ensure interface arrangements and the impact of embedded generation are considered where appropriate			
Assessor Comments:				



Pathway: Electrical Project Engineer Specific Skills

Ref.	Apprenticeship Standard Criteria	WORK LOG EVIDENCE REFERENCE (Apprentice Input)		
		1	2	3
EP4	Undertake contractor management of external parties, agreeing work specifications, variations and acceptance of work completion in-line with company processes and procedures			
Assessor Comments:				



Pathway: Operational Delivery Engineer Role Specific Skills

Ref.	Apprenticeship Standard Criteria	WORK LOG EVIDENCE REFERENCE (Apprentice Input)		
		1	2	3
OD3	Understand and take control of reactive activities including testing, inspection and maintenance of appropriate plant and equipment to meet operational requirements			
Assessor Comments:				



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