
Level 4 End-Point Assessment for Electrical Power Networks Engineer – Operational

Delivery Engineer



EPA Specification Section 5.3 – Technical Interview

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Introduction

The technical interview is the final stage of the end-point assessment. The technical interview is based on a review of the apprentice's work log and will be recorded using technology such as Microsoft Teams and on EUIAS documentation. It is conducted and assessed by an independent industry technical expert approved and appointed by the EUIAS. The technical interview will be documented by the independent industry technical expert. The independent industry technical expert **must** assess the evidence holistically. Representative from the apprentice's employer or training provider is allowed to be present in the room whilst the interview is being conducted which would normally be the employer technical expert who conducted the practical observation. The employer technical expert:

- **must not** amplify or clarify points made by the apprentice
- role is to provide context for the independent industry technical expert with clarifications around specific company policies and procedures
- will not be involved in grading the apprentice
- following the interview, will be asked by the independent industry technical expert to join in a discussion about the interview and the independent industry technical expert will assign a preliminary mark

The technical interview is based on a review of the contents of the apprentice's work log and the interview will focus on each of the elements of the Standard listed below. It is important that the apprentice is completely familiar with each of them.

- Core Technical Knowledge (CTK7; CTK8; CTK9)
- Core Skills (CS3; CS5; CS6; CS7; CS9; CS10)
- Core behaviours (CB2; CB4; CB6)
- Specific Skills for the Operational Delivery Engineer (SS3)

See Section 4 for the references to the Standard.

The technical interview **must** last 2.75 hours and a maximum of 3 hours and must be conducted under controlled conditions. If the apprentice requires a comfort break this must be supervised by an invigilator at all times.

Preparing for the Technical Interview

Apprentices should be prepared for the technical interview underpinned by the work log with

‘mock interview’ opportunities. This should take place near or at the end of their training programme when they are finalising their work log. Apprentices should be guided to include quality pieces of evidence and to index their work logs, referencing each part of their evidence to the relevant part of the Standard.

The independent industry technical expert will ask standardised questions to explore the apprentice’s level of KSBs and specific skills and follow up questions may be asked and to ensure the apprentice has the depth and breadth of competence for the role. The greater depth of understanding will lead to a higher grade being awarded. The apprentice should support their answers by referring to evidence from their work log.

Guidance for preparing for the technical interview underpinned by the work log is outlined in Section 6 ‘Guidance – setting up a Practice Technical Interview’. In particular, apprentices should be made aware of the grading criteria for pass and distinction to enable them to achieve their full potential.

Technical Interview underpinned by the work log:

The technical interview will be conducted by an independent industry technical expert accompanied by an employer technical expert from the apprentice’s workplace. See Section 5 ‘Assessment Summary’, for further details about the roles and responsibilities of each technical expert.

The employer technical expert as a member of the interview panel will not be involved in the preliminary marking process. The employer technical expert must have an electrical engineering qualification at a minimum of level 4 or equivalent and have a minimum of 5 years’ experience as a practitioner in an appropriate work environment and hold or have previously held an appropriate company Authorisation and will not have been involved in the direct training or line management of the apprentice.

During the interview the apprentice’s responses will be documented by the independent industry technical expert. Following the interview, the independent industry technical expert, after discussion with the employer technical expert, will assign a preliminary mark a distinction, pass or fail on the approved EUIAS documentation. In the case of disagreement, the independent industry technical expert has the casting vote.

The technical interview will be focused on contents of evidence in the work log, which **must** be compiled by the apprentice during their on-programme work. The **work log must be submitted 3 weeks before the Technical Interview and contain:**

- at least **one piece of quality evidence** relating to each knowledge, skill and behaviour. This piece of quality evidence must demonstrate the knowledge, skills and behaviours (KSBs) as outlined in Section 2 of this Specification and in Annex A of the Assessment Plan
- contain:
 - include 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
 - **KSBs mapping document** that identifies clearly where all the quality evidence from the work log has been mapped. As mentioned above each piece of evidence is likely to demonstrate more than one KSB. The evidence should be sufficient to demonstrate that the apprentice can apply the core technical knowledge, skills and behaviours required and the control engineer skills as indicated in section 4 of this document
 - **evidence must be valid and attributable to the apprentice, with a qualitative as opposed to quantitative approach**

The independent industry technical expert will review the work log and ask standardised questions, to confirm authenticity of the work and assess underpinning knowledge, skills and behaviours relating to the task. Follow up questions may be asked by the independent technical expert to ensure the apprentice has the depth and breadth of competence for the role. The greater depth of understanding will lead to a higher grade being awarded.

The interview discussion should be conducted in the context of each apprentice's specific job role using the Specific Skill (SS) topic areas identified in Annex A of the Assessment Plan. The interview discussion should encompass the relevant supporting Core Technical Knowledge (CTK), Core Skills (CS) and supporting behaviours through the use of the standardised questions provided for each of the relevant elements which support the scenario being discussed. Where necessary, additional questioning should be conducted by

the Technical Expert to probe further into the detail of the topic area and activities being discussed. Wherever possible the interviewers questioning should be contextualised to the apprentice's job role and the specific work activities they are presenting from their work log.

The technical interview will:

- take place after successful completion of the knowledge test assessment, and practical observation
- be face to face (remote interviews may be applicable pending on Covid-19) professional interview underpinned by the work log of evidence which must take place after successful completion of the knowledge test and practical observation. The interview will be recorded using the relevant technology such as Microsoft Teams or a recording audio and must be submitted to the EUIAs via the Service Delivery team
- be written up and recorded on an interview record template provided by the EUIAS
- be recorded with the use of relevant technology such as Microsoft Teams or a recording audio and submitted to the EUIAS via the Service Delivery team
- evidence the above KSBs

Please note that the work log is **NOT** assessed, but the apprentice **must** use their work log to support themselves in answering the technical interview questions. The interview questions will focus on each of the elements of the Standard listed above so it is important that the apprentice is completely familiar with each of them.

Prior to the technical interview, the independent industry technical expert will have reviewed the work log in preparation for the technical interview. The questioning will cover **ALL** the elements as identified in the apprenticeship Standard. The apprentice can achieve a distinction or a pass. If the apprentice fails, this element the apprentice may re-take or re-sit the technical interview within the six month EPA window. Further information can be found in Section 5 'Retake and Resit Information' of the Specification.

Grading the Technical Interview

The technical interview is marked as a distinction, pass or fail. The grading criteria are described in the following pages.

The grading criteria is based on the Assessment Plan:

- To achieve a pass **all**, pass criteria as listed above **must** be achieved
- To achieve a **Distinction**, an apprentice must successfully achieve **ALL** of the Pass assessment criteria and an additional 25 – 40 marks.

Technical interview grading is shown in the table below:

Grade	Distinction	Pass	Fail
Grade boundaries	85% or greater	60 – 84%	59% or less

Details of overall grading are as described earlier in this document.

Technical Interview underpinned by the logbook grading

The technical interview is graded by the independent industry technical expert approved by the EUIAS. The following tables explain the criteria that are applied in order to achieve each grade for the technical interview.

- To achieve a pass **all, pass criteria must be achieved**
- To achieve a **Distinction**, an apprentice must successfully achieve **ALL** of the Pass assessment criteria and an additional 25 – 40 marks.

Core Knowledge	CKT7	CKT8	CKT9
All Pass criteria must be achieved	✓	✓	✓

Core Skills	CS3	CS5	CS6	CS7	CS9	CS10
All Pass criteria must be achieved	✓	✓	✓	✓	✓	✓

Core Behaviours	CB2	CB4	CB6
All Pass criteria must be achieved	✓	✓	✓

Specific Skills	SS3
All Pass criteria must be achieved	✓

The Technical Interview is graded out of 100. 60 marks have been allocated to the Pass criteria and all of these must be achieved in order to gain a Pass. A further 40 marks are available as described below, and a minimum of a Pass plus 25 additional marks is required to gain a Distinction. Once all of the elements have been observed and the marks awarded the Independent Industry technical expert will recommend a preliminary grade for the independent examiner.

Indicative ‘pass’ criteria for the Technical Interview supported by the work log

The following criteria are indicative of the **pass criteria** the independent industry technical expert will be looking for when the apprentice takes part in the technical interview which will be based upon evidence in the work log.

Standard	Indicative Pass Criteria
<p>CTK7 Company engineering policies appropriate to their role</p>	<ul style="list-style-type: none"> • Demonstrate how they have gathered and analysed relevant information to apply the relevant Company engineering policies to their operational activities to achieve workable solutions • Explain how when conducting their operational activities, they have ensured compliance with the relevant engineering policies / technical specifications • Explain how they have used their knowledge of the Company engineering policies to support their projects to achieve regulatory objectives
<p>CTK8 Engineering problems including how to identify the problem, gather and analyse all relevant information, provide and implement a workable solution and monitoring its effectiveness</p>	<ul style="list-style-type: none"> • Demonstrate how they have gathered and analysed relevant information to implement solutions to resolve operational engineering problems

Standard	Indicative Pass Criteria
<p>CB4 Analysis and solving problems</p>	<ul style="list-style-type: none"> • Explain how they have recognised, and defined problems associated with their operational activities • Explain how they have tackled operational issues in a step by step logical way and made suggestions for solving problems which benefit customers / the business • Explain how operational analysis they have undertaken supports the Company strategies and policies ensuring compliance with technical requirements
<p>CTK9 Company business planning and resource control measures</p> <p>CB6 Planning and organising</p>	<ul style="list-style-type: none"> • Explain how they have gathered and analysed relevant information in order to implement effective operational planning solutions or resource requirements in their projects • Demonstrate how they have linked their operational activities to Company strategies and policies to ensure compliance with the Company business planning and resource control measures • Demonstrate how they have developed operational project plans / designs that contain objectives, budgets, desired outcomes, timescales and evaluation records • Explains how they have taken a forward looking perspective when considering operational decisions and ensured that plans are in

Standard	Indicative Pass Criteria
	<p>place to manage anticipated issues, including contingency planning</p>
<p>CS3 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</p> <p>CB6 Planning and organising</p>	<ul style="list-style-type: none"> • Explain how they have gathered and analysed relevant information in order to maintain and improve the integrity / safety / longevity of the electrical network • Demonstrate how they have linked their projects to Company strategies and policies to ensure compliance with the Company engineering principles • Explain how the asset management principles support the business / client to achieve regulatory incentive mechanisms • Explains how they have taken a forward looking perspective when considering the delivery of asset projects and ensured that plans are in place to manage anticipated issues, including contingency planning
<p>CS5 Read, understand and interpret technical information relative to their role, identified in company strategies and policies and work in compliance with technical specifications</p>	<ul style="list-style-type: none"> • Explain how they have gathered and analysed relevant information in order to plan operational activities which meet Company requirements / specifications • Demonstrate how they have used and interpreted technical Information to develop project plans that contain objectives /

Standard	Indicative Pass Criteria
	<p>budgets / desired outcomes / timescales / evaluation records</p> <ul style="list-style-type: none"> • Demonstrate how they have used technical information to recognise and define design problems which they have tackled in a logical manner
<p>CS6 Produce clear and precise reports in relation to their activities to line management, other business departments and or to external stakeholders</p> <p>CB2 Stakeholder management</p>	<ul style="list-style-type: none"> • Demonstrate how they have gathered and analysed relevant information in order to produce clear and precise reports in relation to their activities to line management, other business departments and/or external stakeholders • Explain how operational reports / findings they have produced link to Company strategies and policies • Demonstrate how operational reports /plans they have produced have been used to support internal and / or external stakeholders and meet their requirements • Explain how they have dealt with stakeholder queries / problems in a logical way and made suggestions for resolution which resulted in a benefit to stakeholders / business
<p>CS7 Develop and agree project plans to undertake their activities. These plans will contain clear objectives, budgets, desired outcomes and timescales. Also</p>	<ul style="list-style-type: none"> • Demonstrate how they have gathered and analysed relevant information in order to develop and agree project plans

Standard	Indicative Pass Criteria
<p>included will be implementation criteria, monitoring process controls and evaluation records</p> <p>CB6 Planning and organising</p>	<ul style="list-style-type: none"> • Demonstrate how they have developed project plans that contain objectives, desired outcomes, timescales, evaluation records and where appropriate budgets • Demonstrate how project plans they have produced have been used to deliver required stakeholder outcomes by following implementation criteria, monitoring process controls and using evaluation records • Explains how they have taken a forward looking perspective when considering the delivery of asset management activities and ensured that plans are in place to manage anticipated issues, including contingencies
<p>CS9 Demonstrate that their work activities support the business to achieve its regulatory incentive mechanisms</p> <p>CB2 Stakeholder management</p>	<ul style="list-style-type: none"> • Demonstrate how they have gathered and analysed relevant operational information in order to support the business to achieve its regulatory incentive mechanisms • Explain how their operational activities link to Company strategies and policies and support the achievement of regulatory incentive mechanisms • Explain how the Company regulatory incentive mechanisms impact / affect relevant stakeholders and their requirements

Standard	Indicative Pass Criteria
	<ul style="list-style-type: none"> Identifies the relevant regulatory stakeholders and how the business manage their expectations by presenting appropriate information to them clearly and concisely
<p>CS10 Provide information to support business planning processes in relation to their role activities</p> <p>CB6 Planning and organising</p>	<ul style="list-style-type: none"> Demonstrate how they have gathered and analysed relevant operational information in order to support the business planning processes in relation to their job role Demonstrate how they have developed project plans that support / comply with the business planning processes Identifies the stakeholders which are affected by the business planning processes and how they are affected Demonstrate how they have developed project plans that take a forward-looking perspective and manage anticipated issues Demonstrate how their project planning has managed anticipated operational issues and considered contingency planning
<p>SS3 Understand and take control of reactive activities including testing, inspection and maintenance of appropriate plant and equipment to meet operational requirements</p>	<ul style="list-style-type: none"> Demonstrate how they have gathered and analysed relevant information in order to make operational decisions Explain how their operational activities link to the Company strategies and policies and how they ensure compliance with

Standard	Indicative Pass Criteria
CB4 Analysing and solving problems	technical specifications <ul style="list-style-type: none"> • Explain how they have identified and dealt with network problems in a logical way and made suggestions or taken action which has led to a successful outcome • Takes responsibility for solving problems by identifying and analysing the issues and drawing logical, sound solutions that benefit customers and the business

Indicative ‘distinction’ criteria for the Technical Interview supported by the work log

- Distinction criteria may only be awarded following the achievement of ALL PASS criteria in this element
- To achieve a Distinction grade in an element a minimum of ONE distinction criteria in that element must be achieved in addition to ALL Pass criteria.
 - On completion of **ALL** of the elements the **DISTINCTION** marks for each element will be totalled by the Independent Industry Technical Expert and recorded on EUIAS documentation
 - **EACH** element has been awarded a pre-set number of **DISTINCTION** marks based on the industry weighting of that element. When each element’s **DISTINCTION** marks are totalled together the maximum number of marks achievable is **40**
 - The **DISTINCTION** marks gained will be added to the overall **PASS** mark of **60** to provide a combined total. 60 marks have been allocated to the Pass criteria and all of these must be achieved to gain a Pass. A further 40 marks are available as described below, and a minimum of a Pass plus 25 additional marks is required to gain a Distinction

- If that total attains **85** marks or more an overall **DISTINCTION** grade may be awarded

Once the technical Interview has been completed and the marks awarded, the Independent Industry Technical Expert will calculate the overall recommended preliminary grading by totalling the marks awarded on the EUIAS Grading Document.

Standard	To achieve a Distinction grade in an element a minimum of ONE distinction criteria in that element must be achieved in addition to ALL Pass criteria
<p>CTK7 Company engineering policies appropriate to their role</p>	<ul style="list-style-type: none"> ● Confidently explains in detail the relevant Company engineering policies which are applicable to their operational activities ● Confidently explains how they have used their knowledge of relevant engineering policies to improve the integrity, safety and longevity of the electrical network in their projects
<p>CTK8 Engineering problems including how to identify the problem, gather and analyse all relevant information, provide and implement a workable solution and monitoring its effectiveness</p>	<ul style="list-style-type: none"> ● Confidently explains how they have resolved operational engineering problems based on sound principles to improve the integrity / safety / longevity of the network ● Explains how they have assessed the effect of differing approaches to resolve operational engineering problems and made suggestions for improvement
<p>CTK9 Company business planning and resource control measures</p>	<ul style="list-style-type: none"> ● Confidently explains the principles of the Company’s business planning policy and resource control measures and the effect on their work projects ● Explains how they have used their knowledge of business planning and resource control measures to assess different approaches to their operational activities and made suggestions for improvement

Standard	To achieve a Distinction grade in an element a minimum of ONE distinction criteria in that element must be achieved in addition to ALL Pass criteria
<p>CS3 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</p>	<ul style="list-style-type: none"> • Confidently discusses and justifies their application of sound engineering principles in their projects to improve the integrity, safety and longevity of the electrical network • Demonstrates how they have assessed the impact of differing engineering approaches and made suggestions for improvement in the integrity, safety, or longevity of the electrical network
<p>CS5 Read, understand and interpret technical information relative to their role, identified in company strategies and policies and work in compliance with technical specifications</p>	<ul style="list-style-type: none"> • Demonstrates how they have used technical information to apply engineering principles which have led to improved integrity, safety and longevity of the electrical network • Demonstrates how they used technical information to consider the inclusion of new technologies or innovations which have been implemented in their work projects
<p>CS6 Produce clear and precise reports in relation to their activities to line management, other business departments and/or to external stakeholders</p>	<ul style="list-style-type: none"> • Demonstrates how they have used their knowledge gained from project monitoring and the evaluation of operational records to produce clear and precise reports which benefit the business • Discusses reports produced which demonstrate their skills in assessing the impact in different approaches, and provides analysis to support suggestions for improvement

Standard	To achieve a Distinction grade in an element a minimum of ONE distinction criteria in that element must be achieved in addition to ALL Pass criteria
<p>CS7 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</p>	<ul style="list-style-type: none"> • Demonstrates confidently how they have applied sound engineering principles to develop asset plans to undertake projects which contain clear objectives, budgets, desired outcomes and timescales • Discusses project plans produced which demonstrate their skills in assessing the impact in different approaches, and provide analysis to support suggestions for improvement
<p>CS9 Demonstrate that their work activities support the business to achieve its regulatory incentive mechanisms</p>	<ul style="list-style-type: none"> • Confidently discusses the Company’s operational principles and the part they play in supporting the business to achieve its regulatory incentive mechanisms • Confidently explains how the Company’s inclusion of new technologies and engineering innovations are supporting the business to achieve its regulatory incentive mechanisms
<p>CS10 Provide information to support business planning processes in relation to their role activities</p>	<ul style="list-style-type: none"> • Explains how they have monitoring / evaluated operational information which has led to learning points to support future planning processes • Discusses operational plans produced which demonstrate their skills in assessing the impact in different approaches, and provide analysis to support suggestions for improvement in the planning process
<p>SS3 Understand and take control of reactive activities including testing,</p>	<ul style="list-style-type: none"> • Confidently explains how they have used the Company’s engineering principles / policies to plan and manage their operational projects to improve the integrity,

Standard	To achieve a Distinction grade in an element a minimum of ONE distinction criteria in that element must be achieved in addition to ALL Pass criteria
inspection and maintenance of appropriate plant and equipment to meet operational requirements	<p>safety or longevity of the network</p> <ul style="list-style-type: none"> • Discusses projects produced which demonstrate their skills in assessing the impact of different approaches to resolve operational problems and make suggestions for improvement