Building Services Engineering Technician Apprenticeship Level 3 ST0063 v1.1

Apprenticeship Guidance

Contents

Introduction

This guidance explains how to apply for and complete your End Point Assessment (EPA). Success in the Assessment will also enable you, if you wish, to become a registered Engineering Technician and to become a Licentiate member of the Chartered Institution of Building Services Engineers (CIBSE).

Membership provides many benefits, including ways to demonstrate and maintain your professional standing nationally and internationally. In addition, membership gives access to networks for professional support and development.

If you have any questions, please contact CIBSE on +44(0)208772 3650 or email EPA@cibse.org

Applying for End Point Assessment

Readiness for the **End Point Assessment** will be decided by your employer in consultation with your training provider.

When you are nearing the end of your apprenticeship, you should have conversation with your employer and training provider to establish potential gaps in your acquired competencies, Knowledge, Skills and Behaviours **(KSBs)**. You should consider how the apprenticeship has equipped you for progression and whether you are ready to undertake the final qualification, the **EPA**. Readiness to apply for the **EPA** will then be decided by your employer in consultation with your training provider.

When all parties are agreed, the EPA application will be done through the online platform ACE360**.**

You will need to upload copies of the below documents when applying:

- Your portfolio of evidence *(see Assessment Method 2 for more information)*
- Certificate or proof of successful completion of one of the following mandated qualifications:
  - Pearson BTEC Level 3 National Diploma in Building Services Engineering
  - Pearson BTEC Level 3 National Extended Diploma in Building Services Engineering
  - EAL Level 3 Electrotechnical Qualification
  - Pearson BTEC Level 3 Diploma in Advanced Manufacturing Engineering (Development Technical Knowledge)
  - City and Guilds Level 3 Electrotechnical Qualification
- Level 2 Maths and English certification or proof of successful completion.
- Unique Learner Number (10 digits available from your provider)
- Contact details for your sponsor employer
- Contact details for your training provider

You will be asked to **nominate** your building services engineering specialism.

You can also request any special conditions for your assessment in relation to our Fair Access Policy.

If you would like your application to be considered for professional registration as LCIBSE EngTech, then will need to upload the following in addition:

- Organisation Chart for your employer clearly showing your position at the company
- Development Action Plan (an A4 length statement of your short, medium and long-term career goals)

- Details of your sponsor who must be a Member, Associate or Licentiate of CIBSE or an Engineering Council Registrant

More information about LCIBSE EngTech and its benefits can be found online here.

Refer to Appendix A for a checklist on submitting your EPA application

What happens next?

Following receipt of your EPA application, CIBSE will check and confirm whether you satisfy the requirements to enter the gateway. We will send an email to your named employer and training provider to confirm readiness. You will then be notified of the next available gateway entry date and corresponding interview week.

The EPA process commences when you receive the gateway email which will contain your technical project brief, a confidential guide to the required projects, useful resources and more information about the interview itself.

The EPA consists of two assessment methods:

1. **Technical project with report and presentation with questioning**
2. **Professional discussion underpinned by portfolio**

EPA milestone summary

- Your portfolio of evidence is due at the time you submit your EPA gateway application
- CIBSE will review your application, confirm your eligibility to enter the gateway and assign your technical project brief within 2-3 weeks
- Your report response to the technical project brief will be due approximately six weeks after the Gateway entry
- Your interview will be approximately nine weeks after the Gateway entry

Assessment Guidance

Assessment Method 1: Technical project with report and presentation with questioning (AM1)

This assessment method has two components.

Summary

The EPA technical project involves completing a significant and defined piece of building services engineering work that has a real relevance to industry.

You will be assigned a **technical project brief** by CIBSE and are required to prepare your response via a technical project report and presentation addressing the required Knowledge, Skills and Behaviours (KSBs). Your presentation will be delivered to two independent assessors, who will follow up with questioning.

The KSBs for Assessment Method 1 can be viewed in Appendix K: The Knowledge Skills and Behaviours.

1. The technical project brief

The technical project briefs have been designed by CIBSE to ensure you are competent to meet building services engineering challenges. The brief you receive will be relevant to your role and will allow the KSBs you have learned as an apprentice to be assessed. The brief will be approximately 500 words in length and will be accompanied by technical drawings.

Your technical project brief will be issued by CIBSE once your application has been checked and verified at gateway entry. You will receive this via email, typically 2-3 weeks after the EPA gateway application deadline.

The brief will reflect a real work-based building services engineering challenge, providing a focus on an area such as:

- Mechanical engineering
- Electrical engineering
- Mechanical and electrical engineering (M&E)
- Public health engineering
- Energy and building management systems
- Environmental and sustainability building services engineering
- Facilities management

For example, project titles could include:

- Carry out a feasibility study to address the mechanical engineering systems that will be installed for the refurbishment of a Further Education College
- Produce a schematic design for the installation of an appropriate electrical distribution system supporting a new hotel project.

Your technical project brief is confidential and must not be shared with anyone.

If CIBSE identifies that this has been breached, it will be addressed under CIBSE's Malpractice and Maladministration Policy and consequential action may be taken.

Technical project brief response

You will be required to prepare a response to the technical project brief via two components:

1. **A technical project with report**
2. **A presentation with questioning**

The two components will be assessed holistically.

It is expected that the project should take you up to 30 hours to complete over a period of six working weeks.

2. Component 1: Technical project with report

You must prepare a report in response to the technical project brief you are assigned by CIBSE.

- Your report must address each required KSB
- You must map how the report provides evidence for each relevant KSB
- Your report must include appendices of supporting evidence
- Your report must be 2,500 words, +/- 10%
  - Appendices, references, diagrams etc will not be included in the word count
- You must clearly list the word count your report
- Your report must be your own work
- Your report will be due within six working weeks of the date of issue
  - The deadline will be confirmed by CIBSE when you receive your technical project brief

As a minimum, all technical project reports must include:

- An introduction
- The scope of the project (including key performance indicators)
- A project plan and methodology
- Research and findings:
  - Data collection, analysis and evaluation appropriate to the technical project
  - Your exact role and the levels of responsibilities
- Reference to:
  - Scientific and engineering principles
  - Methods and techniques used
  - Data and/or calculations used
  - Industry standards, policies, regulations, and legislation
  - Environmental and sustainability issues
  - QA procedures
- Project outcomes
- Conclusions
- Appendix mapping your report to each KSB

- Additional appendices of supporting evidence (these will not count towards the word count)
- Witness statement, signed by the apprentice and employer (Appendix C)

Example appendices of supporting evidence may include:

- Plans
- Diagrams
- Calculations
- Designs
- Feedback
- A process of choosing particular system(s)

This list is not definitive and other evidence sources apart from self-reflection are permissible.

The technical project report and all appendices of supporting evidence directly demonstrating evidence of KSBs must be attributable to you, the apprentice. **Evidence must be accompanied by a witness statement outlining your contribution, signed by you and your employer thereby authenticating it**. Refer to Appendix C for a recommended witness statement template.

Your technical project report will be reviewed and assessed by two independent assessors.

3. CIBSE advice on completing your technical project report

- Avoid using long sentences and paragraphs
  - Make use of bulleted or numbered lists where possible
- Proofread the final draft
- The report should be in A4 size and use 12 point fonts with 1.5 line spacing
- Ensure you are within the stipulated word count of 2,500 words +/- 10%
  - Excluding any appendices
- Ensure that you and your employer complete the Technical Project Report Witness Statement (Appendix C)
- Double check that all relevant KSBs are addressed in your report (refer to Appendix B for a checklist)

4. Component 2: Presentation & questioning

You will prepare and deliver a presentation based on your technical project report that appropriately covers the required KSBs.

Refer to Appendix B for a checklist of the required KSBs for AM1.

The presentation is due at the same time as the technical project report. This date will be confirmed by CIBSE upon receiving the technical project brief.

Your presentation must cover the following as a minimum:

- A summary of your technical project report
- An explanation of how and why specific techniques and criteria have been selected and applied
- Your conclusions

The presentation and follow-up questioning will be conducted as follows:

The presentation will typically last 10 minutes followed by 20 minutes of questioning. The assessors have the discretion to increase this time by up to 10% to allow you to complete your last point.

To deliver the presentation, you can use the following:

- Commonly used presentation software (i.e., Microsoft PowerPoint)
- Flip chart
- Work products
- Videos or other media clips
- Interactive demonstrations
- Notes
- Computer

The above list is not exhaustive and other presentation methods may be permissible where appropriate. Where specialist presentation or technical software is required, for example, CAD, Revit, or specific engineering analysis software, it is your responsibility to specify the chosen equipment and resources for the presentation.

The assessors will ask a minimum of five questions in total between them at the end of the presentation to ensure KSBs assigned to Assessment Method 1 are covered in sufficient depth and to allow for relevant grading criteria to be drawn out by the independent assessors. The independent assessors may ask additional follow-up questions to seek clarification where required.

5. CIBSE advice on preparing your technical brief presentation

- Give a brief overview at the start
- Check spelling and grammar for errors
- Practice your timing
- The slide should ideally contain bullet points of the topics under consideration and graphics should correspond to the project being presented
- Speak clearly to express your proposals and do not just read the text as it appears from the slide
- Reference the technical materials to its source at the bottom of slide
- Recommended maximum of 20 slides
- Ensure the proposal is practical and relevant to the brief
- Outline any assumption that is being made
- The reflection part of the presentation is the opportunity for you to assess your own strength and weakness and should not be used to criticise the brief
- Read the brief very carefully and ensure its requirements are fulfilled
- Time the presentation and keep within the given period
- Discuss the content and project proposals with the senior engineer and ask for their opinion

Refer to Appendix A for a checklist on the requirements for Assessment Method 1

6. Submitting your technical project brief and report

Both components are due within six weeks of the date of issue. The exact date will be confirmed by CIBSE when you receive your technical project brief.

Following submission of your technical project brief and report, CIBSE will confirm via email the date for your formal presentation and questioning. This will be called your 'EPA interview'. Your EPA interview will include both assessment methods: the technical project response and professional discussion. It will be scheduled within six working weeks from the date your technical project report and presentation was submitted to CIBSE.

Assessment Method 2: Professional discussion underpinned by portfolio (AM2)

This assessment method has one component.

Summary

Apprentices must compile a portfolio of evidence during the on-programme period of the apprenticeship. The portfolio must contain evidence related to the required KSBs.

This portfolio is to be submitted along with your EPA application at the gateway deadline.

The portfolio is not directly assessed. It will be reviewed by CIBSE's independent assessors and used to underpin the professional discussion during your EPA interview.

The KSBs for Assessment Method 2 can be viewed in Appendix K: The Knowledge Skills and Behaviours.

1. Portfolio of evidence requirements

The portfolio of evidence will typically contain 10 to 12 individual sources of evidence, each accompanied by a KSB Achieved Report.

The portfolio should be between 2,000 to 2,500 words – made up from the KSB Achieved Reports – *excluding* the project/career episode introductions and listings.

Evidence must be mapped against the KSBs

Evidence must be mapped to the Knowledge, Skills and Behaviours (KSBs) required for the professional discussion. Evidence may be used to demonstrate more than one KSB.

For detail on required KSBs, refer to Appendix K
For a checklist of the required KSBs for AM2, refer to Appendix I

Evidence must cover the following areas:

- Using technical software to present building services engineering information
- Contributing to building services engineering project management
- Health, safety and welfare

- Personal and professional practice

Examples of evidence of work undertaken may include:

- Building services engineering designs
- Technical drawings
- Briefs, specifications, project plans, technical reports
- CAD/BIM/Revit models
- Client or customer feedback
- Site meeting reports
- Witness statements
- Employer/trainer feedback
- Initial and continuous professional development and training records
- Appraisal records
- Training course completion

This list is not definitive, other evidence sources are permissible.

Any employer contributions should focus on direct observation of performance (for example witness statements) rather than opinions.

The evidence provided must be valid and **attributable to your own work**. The portfolio of evidence must conclude with a KSB validity statement from your employer confirming this. Refer to Appendix J for a template.

KSB Achieved Reports

A KSB Achieved Report (Appendix E) must be completed and submitted for **each source of evidence**. The purpose of this report is to provide context to the assessors as they review the portfolio and prepare for the professional discussion. The reports are to be completed you and require the following:

1. To describe the submitted evidence
2. To list the relevant KSBs the evidence addresses
3. To reflect on what you have learnt from the work and how the evidence meets the required KSB(s)
4. To be signed by you and your employer to confirm the evidence is your own work

The overall portfolio should have a 2,000 to 2,500 word count, which is only made up of your contribution to each KSB Achieved Report. Therefore, **the word count for your contribution to each KSB Achieved Report should be approximately 200 words in length.**

Guidance on how to complete your KSB Achieved Reports can be found in Appendix F.

2. Advice on preparing your portfolio of evidence

- We recommend you review the mapping of the required KSBs for the professional discussion. This will help decide the pieces of evidence to include in the portfolio
- Describe in detail the incidents which relate directly to the KSB criteria, clearly stating which KSBs you are claiming
- The evidence provided should be a range of evidence that showcases the type of tasks the candidate undertakes. Avoid duplicating the same pieces of evidence
- Make sure that the evidence provided shows your own work and avoid the use of ‘we’

- Clearly state your role and responsibilities; use the first person – I, me, my – to show the assessor your personal contribution
- Ensure that you have read and understood the CIBSE Code of Professional Conduct at www.cibse.org/code
- Review your portfolio with your workplace sponsor

3. How to format your portfolio of evidence

The format must be as follows:

1. Portfolio title page

The title page must include the apprentice, employer and training provider detail, your ULN, apprenticeship standard and date. You must also include a total word count for your KSB Achieved Reports. Refer to Appendix D for a suggested template.

2. Index of evidence

As pieces of evidence are selected, they should be given a unique reference number. Every piece of evidence must be numbered and referenced on the index. Refer to Appendix G for a suggested template.

3. Summary of key projects

A document summarising all key projects/career episodes referenced throughout the portfolio. Included will be the project title, client, construction value, RIBA stages worked on and description. This will not contribute to the overall word count. Refer to Appendix H for a suggested template.

5. Employer KSB validity statement

This statement must be written and signed by your employer. Refer to Appendix J.

4. Portfolio evidence and KSB Achieved Reports (10 to 12 of each)

A KSB Achieved Report must be completed for each source of evidence submitted. Your contribution to the KSB Achieved Reports will count towards overall word count of 2,000 to 2,500 words. Refer to Appendix F for guidance. As you are expected to submit 10 to 12 pieces of evidence, each KSB Achieved Report should aim to be approximately 200 words in length.

4. How to submit your portfolio of evidence

Your portfolio of evidence is submitted along with your EPA Gateway application, via our online platform AE360. You will be required to upload the portfolio, along with all required supporting documentation.

All elements of your portfolio must be complete and submitted before your ‘Gateway readiness’ can be confirmed.

CIBSE will do an initial review of your portfolio to confirm that all elements have been submitted correctly, and that all applicable KSBs have been addressed. We will contact you if there is anything missing from your portfolio and application.

5. The professional discussion

A professional discussion is a two-way discussion which involves both the assessors and you actively listening and participating in a formal conversation. It gives you the opportunity to make detailed and proactive contributions to confirm your competency across the KSBs mapped to this method.

The purpose of the discussion is to:

- Clarify any questions the assessors have from their review of your portfolio
- Explore aspects of your work, including how it was carried out, in more detail
- Require you to draw on your portfolio evidence to demonstrate the KSBs

The assessors will receive your portfolio of evidence at least three working weeks in advance of the professional discussion. They will review your portfolio of evidence to determine the appropriate questions to ask during your interview.

The professional discussion will last for 40 minutes. The assessors have the discretion to increase the time of the professional discussion by up to 10% to allow you to complete your last answer. Further time may be granted in special conditions in-line with CIBSE's Fair Access Policy.

The assessors will ask a minimum of four open questions between them during the discussion and may ask follow-up questions to seek clarification where required.

The questions will cover the required KSBs and will be around the following four areas:

1. Using technical software to present building services engineering information
2. Contributing to building services engineering project management
3. Health, safety and welfare
4. Personal and professional practice

You may refer to your portfolio during the professional discussion, to help you with your responses.

Refer to Appendix A for a checklist on the requirements for Assessment Method 2

The EPA Interview

Your EPA Interview will be scheduled approximately three weeks after your technical report and presentation is due. **This is approximately nine weeks after your gateway entry date**.

You will be informed of your approximate interview date once you've entered the EPA gateway. The exact interview date will be confirmed approximately 2-3 weeks into the gateway.

Your EPA interview will be conducted virtually via Microsoft Teams unless a face to face is required in-line with CIBSE's Fair Access Policy.

Your interview will last approximately 80 minutes and follow the below format:

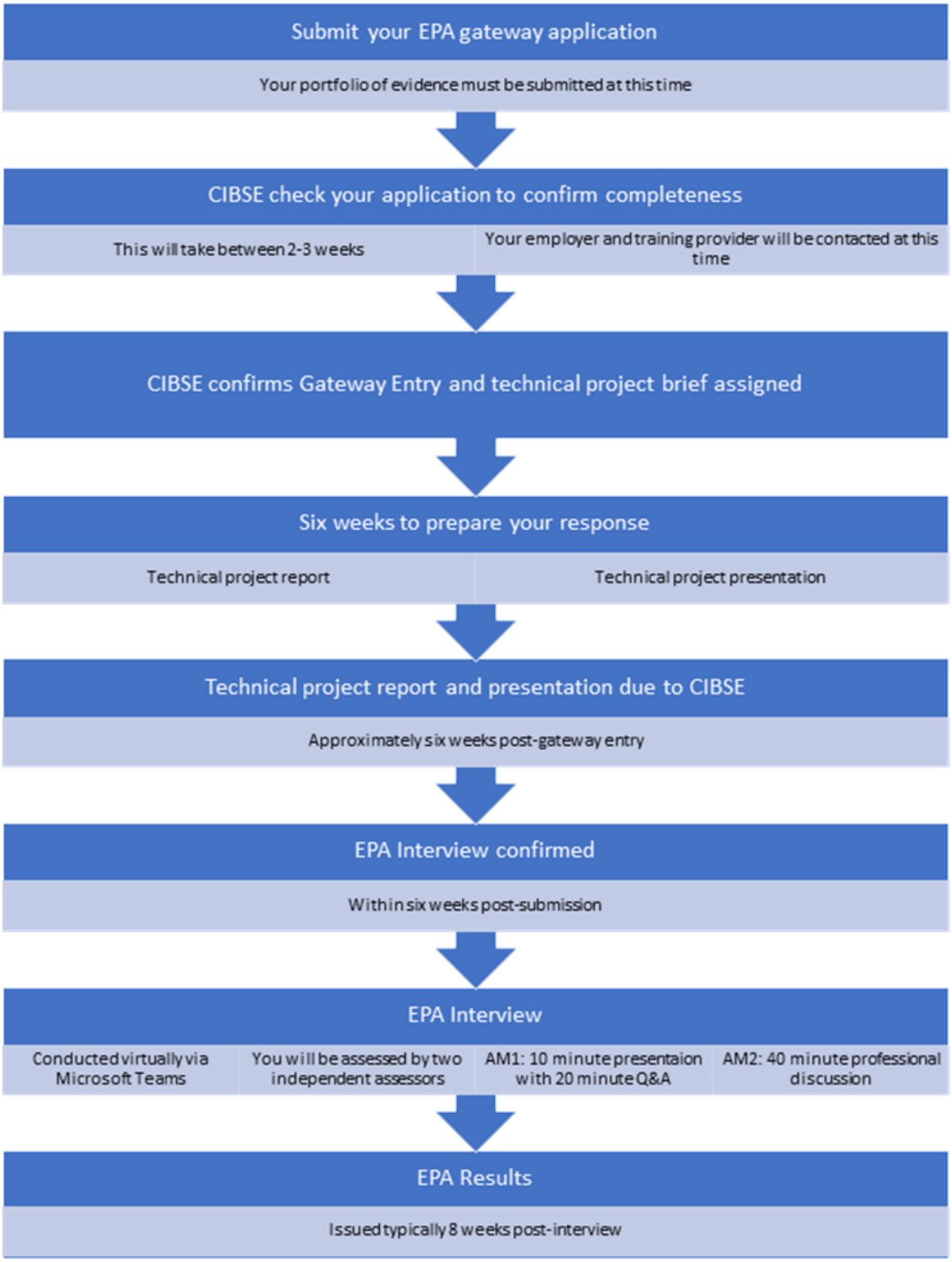
- 5-minute introduction, housekeeping, ID verification
- **Assessment Method 1**, technical project presentation with questioning (+10% if needed)
  - 10-minute presentation
  - 20-minute questioning
- **Assessment Method 2**, professional discussion
  - 40-minute discussion (+10% if needed)
- 5-minute close and next steps

Important:

For virtual interviews, you will be required to do a 360 of your camera to verify that you are alone in the room and not receiving additional help. It is your responsibility to ensure you are using equipment that will enable a 360 to be completed, for example, a laptop or a portable webcam. Your interview will not proceed without completing the 360 to the assessors' satisfaction.

Further guidance on how to prepare for your interview will be provided once you've entered the EPA gateway.

Process summary of your End Point Assessment



Success in completing your EPA

After you have been informed of your results, if you have passed, CIBSE will apply for your apprenticeship completion certificate via the ESFA (Education Skills and Funding Agency).

If you have successfully completed your End Point Assessment, you will have met the standards for registration as an Engineering Technician and Licentiate Member of CIBSE (EngTech LCIBSE). If you indicated on your application form that you would like EngTech LCIBSE Membership alongside your EPA, your notification will be accompanied by an invitation to apply for membership of CIBSE. This will enable you to register with the Engineering Council as an Engineering Technician. Membership and registration both require you to undertake to meet the ethical requirements for practice as a professional Engineering Technician, which include undertaking continuing professional development, to maintain your skills and knowledge. There is also an annual fee to retain your membership and registration. More information can be found here.

Unsuccessful applications: re-sits and re-takes

If you are unsuccessful in your End Point Assessment, CIBSE will provide feedback to you and your employer on the reasons for this.

You will be offered the opportunity to take a re-sit or a re-take your EPA. A re-sit does not require further learning, whereas a re-take does, and will be at the discretion of your employer.

Your employer should prepare a supportive action plan to help you prepare for your re-sit or re-take.

The timescales for either a re-sit or re-take is agreed between your employer and CIBSE. A re-sit is typically taken within four months of the EPA outcome notification. The timescale for a re-take is dependent on how much further learning is required and is typically taken within seven months of the EPA outcome notification.

All assessment methods must be taken within a 11-month period, otherwise the entire EPA will need to be re-sat/re-taken (i.e., 4 months typical EPA period plus 4 or 7 months for a re-sit or re-take respectively).

Re-sits and re-takes are not offered to apprentices wishing to move from pass to a higher grade.

Where any assessment method has to be re-sat or re-taken, the apprentice will be awarded a maximum EPA grade of pass, unless the EPAO determines there are exceptional circumstances.

Problems in undertaking your EPA

If you are unable to complete the project in time you need to notify CIBSE as soon as possible. Where there are mitigating circumstances (health, bereavement, redeployment, etc) a delay may be allowed, but this is entirely at the discretion of CIBSE. An additional fee may be charged, depending on circumstances. Otherwise, you will need to reapply, and a different technical project will be assigned.

While you are permitted to seek advice from your employer and learning provider, in no circumstances should you seek external assistance in completing your written report or your technical project response. If CIBSE detects that you have employed outside assistance, action will be taken under CIBSE's Malpractice and Maladministration Policy. This will not only mean that you may not complete your apprenticeship, but you may be unable to apply for CIBSE membership or Engineering Council registration at any time in the future.

Appeals

CIBSE operates an appeals process for applicants who wish to challenge the outcome of their application. Details can be found on our website at www.cibse.org/epa-policies.

Fair Access

CIBSE will ensure that disability, as defined by the Equality Act 2010, does not prevent you from completing your End Point Assessment, so long as the equity, validity and reliability of the assessments can be assured. A copy of our detailed policy statement may be found on our website at www.cibse.org/epa-policies.

Fees

Details of the fees for membership of CIBSE and Engineering Council Registration may be found at www.cibse.org/fees.

Note, this is only applicable if you have opted to apply for CIBSE membership alongside your EPA.

Appendix A: **Assessment Methods 1 & 2 – Your EPA completion and submission checklist**

Use the below to confirm that you have met the requirements for submitting and completing your EPA

EPA Application checklist

- ☐ Your completed portfolio of evidence and its supporting documentation (see AM1 checklist below)
- ☐ Certificate or proof of successful completion of one of the following mandated qualifications:
  - Pearson BTEC Level 3 National Diploma in Building Services Engineering
  - Pearson BTEC Level 3 National Extended Diploma in Building Services Engineering
  - EAL Level 3 Electrotechnical Qualification
  - Pearson BTEC Level 3 Diploma in Advanced Manufacturing Engineering (Development Technical Knowledge)
  - City and Guilds Level 3 Electrotechnical Qualification
- ☐ Level 2 Maths and English certification or proof of successful completion.
- ☐ Unique Learner Number (10 digits available from your provider)
- ☐ Contact details for your employer
- ☐ Contact details for your training provider
- ☐ *Optional:* Contact details and membership/registration information for your CIBSE Membership Sponsor *(Note: this is only applicable if you are applying for LCIBSE EngTech alongside your EPA)*

Assessment Method 1 (AM1):
Technical project with report and presentation with questioning

- ☐ Ensure the report is between 2,000 to 2,500 words, +/- 10%
- ☐ Clearly list the total word count on the report
- ☐ Ensure the report addresses each required KSB (refer to Appendix B for KSB checklist)
- ☐ Ensure appendices of supporting evidence is included
- ☐ Ensure that you and your employer have completed the Technical Project Report Witness Statement (Appendix C)
- ☐ The technical project presentation is 10 minutes long and meets its minimum requirements (page 5)

Assessment Method 2 (AM2):
Professional discussion underpinned by portfolio

- ☐ The portfolio contains between 10 to 12 individual pieces of evidence
- ☐ Each piece of evidence is accompanied by its own KSB Achieved Report, completed by you and your employer (Appendix E)
- ☐ Ensure each KSB Achieved Report is approximately 200 words (the word count is attributable to your contribution only)
- ☐ The portfolio provides evidence against the required KSBs (Appendix I)
- ☐ Complete the Portfolio Cover Page (refer to Appendix D for suggested template)
- ☐ Complete the index of evidence (refer to Appendix G)
- ☐ Complete a summary of key projects referenced in your portfolio (Appendix H)
- ☐ Ensure your employer has completed the KSB Validity Statement (Appendix J)

Appendix B: **Assessment Method 1 – KSB checklist**

This lists the KSBs applicable to **Assessment Method 1: Technical Project Brief with report and presentation with questioning.**

You can use this checklist to cross-reference and confirm that all relevant KSBs have been addressed in your evidence.

K1		S1		B3	
K2		S2			
K3		S5			
K6		S6			
K7		S8			
K8		S10			
K10					

Appendix C: **Assessment Method 1 – Witness Statement Template**

Technical Project Report Witness Statement

Level 3 – Building Services Engineering Technician ST0063 1.1

Assessment Method 1: Technical project brief with report and presentation with questioning

This statement is to confirm that the Technical Project report and all supporting evidence submitted are the **apprentice's own work**.

It must be **completed by the apprentice and the employer** and submitted along with the Technical Project report.

Section A: the Apprentice

Statement confirming that the Technical Project Report and evidence are all your own work
I can confirm that all work and pieces of evidence submitted are attributable to my own work.
Optional: add any additional comments to support this statement

Apprentice	
Name:	
Signature:	
Date:	

Section B: the Employer continues on the following page.

Section B: the Employer

Employer statement confirming the apprentice's own work
Example: '*I confirm that this report and supporting evidence is attributable to X's own work. X's involvement in X project is providing them with the right exposure to processes and tools which will be part of X's development. X has used different software and tools to carry out activities for the tasks assigned to them.'*
Recommended 100 to 150 words

Employer	
Name:	
Job title:	
Signature:	
Date:	

CIBSE EPA Portfolio of Evidence

Apprentice name:

ULN:

Employer:

Employer contact name:

Training provider:

Training provider contact name:

Apprenticeship standard:
ST0063 Level 3, Building Services Engineering Technician v1.1

Date of submission:

Overall word count:

Appendix E: **Assessment Method 2 – KSB Achieved Report Template**

KSB Achieved Report

Level 3 – Building Services Engineering Technician ST0063 1.1

Assessment Method 2: Professional discussion underpinned by the portfolio

This report must be **completed by the apprentice for each source of evidence** submitted for EPA.

The **employer must verify the evidence** by providing a summary of the apprentice's contribution. The **apprentice and employer must both sign the report** to confirm the evidence is attributable to the apprentice's own work.

Information on how to complete this report can be found in the CIBSE EPA ST0063 v1.1 Guidance document.

Section A

Section A does not contribute to the overall word count

Name:	
Employer:	
Training Provider:	

Title of evidence:	
Index number of evidence:	
Client:	
Project name:	
Scope of works:	

Section B

The apprentice's contribution to Section B will contribute to the overall word count.

1. Description of evidence provided
Provide a description of the evidence you have provided in your Portfolio, and why you selected this piece of evidence **Example:** *"I've contributed to a number of components of 'X' project, including modelling ductwork in REVIT, and carrying out coordination with other disciplines…"*
2. List the KSBs addressed in this evidence
Which KSB(s) are addressed by this piece of evidence? You may be able to link this evidence to more than one item of knowledge, skill and/or behaviour.

***Example:** 'K1, K2, S4'*

3. Reflect on your practical experience gained from this evidence
Reflect on what you learnt from this evidence and how it shows you have met the nominated KSBs. **Example:** *"I've contributed to a number of components of 'X' project, including drawing up ductwork schematics using AutoCAD, determining heating and cooling loads using ISEVE, and using REVIT to understand the layout of a plantroom"*

Apprentice	
Signature:	
Date:	

This section <u>does not</u> contribute to the overall word count.

4. Employer's comments
Example: *"X's involvement in X project is providing him/her with the right exposure to processes and tools which will be part of X's development. X has used different software and tools to carry out design activities for the design tasks assigned to him/her."*

Employer	
Name:	
Job title:	
Signature:	
Date:	

Appendix F: **Assessment Method 2 – KSB Achieved Report Guidance**

Guidance on how to complete your KSB Achieved Report

The KSB Achieved Report must be completed for each piece of evidence you submit for your EPA.

The completed report will be the cover-sheet for each piece of evidence.

Section A

*Section A **does not** contribute to the overall word count*

Name: List your full name
Training Provider: List your training provider
Employer: List your employer
Title of evidence: List the title of the specific evidence you have written the KSB Achieved Report for. For example, if the evidence you have submitted is your 2021 appraisal record, you could title it: '2021 Appraisal Record'
Index # of evidence: List the unique number you have assigned this specific source of evidence. This number must correspond with what is listed on the evidence index at the beginning of your portfolio
Client: List the client relevant to the evidence
Project name: List the project name
Scope of work: Summarise the project including date, place, purpose, people involved and your role

Section B

*Section B **does** contribute to the overall word count*

Description of evidence provided

- State why you selected this piece of evidence

List the KSBs addressed in this evidence
List all the KSBs that are addressed in this evidence. Refer to appendix I to determine which KSBs are required for the professional discussion.

Reflect on your practical experience gained from this evidence and how it relates to the KSB(s)

- Describe what you learnt on this project that expands your professional experience and competence.
  - *For example, 'I contributed to a project design programme. I widened my knowledge of the industry and have a better understanding of what goes into the different design stages of a project*
- It is not sufficient to record *what* you did; you must also say *what you learned* and *how it links to the relevant KSBs*

Appendix G: **Assessment Method 2 – Evidence index template**

Suggested order of your portfolio of evidence

NB: this is intended as a guide only

Portfolio cover page		Page X
Evidence Index		Page X
Summary of key projects		Page X
Employer KSB validity statement		Page X
Evidence 1	**KSB Achieved Report 1**	**Page X**
	Title of Evidence	Page X
Evidence 2	**KSB Achieved Report 2**	**Page X**
	Title of Evidence	Page X
Evidence 3	**KSB Achieved Report 3**	**Page X**
	Title of Evidence	Page X
Evidence 4	**KSB Achieved Report 4**	**Page X**
	Title of Evidence	Page X
Evidence 5	**KSB Achieved Report 5**	**Page X**
	Title of Evidence	Page X
Evidence 6	**KSB Achieved Report 6**	**Page X**
	Title of Evidence	Page X
Evidence 7	**KSB Achieved Report 7**	**Page X**
	Title of Evidence	Page X
Evidence 8	**KSB Achieved Report 8**	**Page X**
	Title of Evidence	Page X
Evidence 9	**KSB Achieved Report 9**	**Page X**
	Title of Evidence	Page X
Evidence 10	**KSB Achieved Report 10**	**Page X**
	Title of Evidence	Page X

Appendix H: **Assessment Method 2 – Summary of Key Projects Template**

Summary of Key Projects

ST0063 – Building Services Engineering Technician v1.1

Assessment Method 2: Professional discussion underpinned by portfolio of evidence

Please provide a summary of the key projects referenced in your portfolio of evidence.

Project	Dates	Client	Construction value (if known)	RIBA stages worked on	Description
Balham Primary School	*Feb to Nov 2021*	*Wandsworth City Council*	*Approx. £250.000*	*1=3 Design and Building contract*	

Appendix I: **Assessment Method 2 – KSB Checklist**

This lists the KSBs applicable to Assessment Method 2: the Professional Discussion (underpinned by portfolio of evidence)

You can use this checklist to cross-reference and confirm that all relevant KSBs have been addressed in your evidence.

K4		S3		B1	
K5		S4		B2	
K9		S7		B4	
K11		S9		B5	
K12		S11		B6	
		S12			

Appendix J: **Assessment Method 2 – Employer KSB Validity Statement**

Employer KSB Validity Statement

Level 3 – Building Services Engineering Technician ST0063 1.1

Assessment Method 2: Professional discussion underpinned by portfolio of evidence

To be completed by the Employer

Please indicate below how the apprentice has demonstrated, through your experience, the levels of competence required for the Knowledge, Skills and Behaviours.

Apprentice name: _____

Knowledge
Example: *Has taken responsibility for identifying and developing their own knowledge, which they have then applied at project level.*
Skills
Example: *Uses effective communication and interpersonal skills.*
Behaviours
Example: *Has accepted responsibility for their own personal development.*

Employer	
Name:	
Job title:	
Signature:	
Date:	

Appendix K: **The Knowledge, Skills and Behaviours**

Mapping of the Knowledge, Skills and Behaviours for Assessment Method 1 and 2

- Assessment Method 1 (AM1) – Technical project with report and presentation with questioning

Assessment Method 2 (AM2) – Professional discussion underpinned by portfolioKSB Code	KSB Statement	Methods mapped against
Knowledge		
K1	Appropriate engineering principles, underpinned by relevant mathematical, scientific, and technical knowledge and understanding, relating to building services engineering and the construction or manufacturing process	AM1: Technical project
K2	Appropriate building services engineering techniques and methods used to design, install, commission, maintain or operate buildings and infrastructure, the standards, contracts, and specifications used, and their impact on the construction or manufacturing process	AM1: Technical project
K3	Key principles, techniques and methods of data and technical information collection, analysis and evaluation used in delivering building services engineering models (such as Building Information Modelling), designs, and technical solutions	AM1: Technical project
K4	Technical drawings, designs, and Building Information Models, using computer-based software packages, such as Computer Aided Design (CAD) or modelling software (Revit), and their use in the sector	AM2: Professional discussion
K5	Statutory health, safety and welfare policies, procedures, and regulations, including risk management, in relation to building services engineering project delivery	AM2: Professional discussion
K6	Industry policies, standards, regulations and legislations (such as Building Safety legislation), and codes of practice (such as Common Safety Method (CSM) and Construction Design and Management (CDM)), that must be adhered to in the building services engineering environment	AM1: Technical project
K7	Principles of sustainable development, including those relating to United Nations Sustainable Development Goals (UNSDG) and net-zero carbon emissions, environmental policies and legislations, the climate change act, and their impact on the design, delivery, and maintenance of building services engineering projects	AM1: Technical project
K8	Understanding of equality, diversity and inclusion, and its impact on building services engineering solutions	AM1: Technical project

K9	Project management, including quality and information management and assurance systems and continuous improvement processes, as applied to building services engineering	AM2: Professional discussion
K10	Methods of communication and when to use them, including how to write technical reports and present technical information, using appropriate engineering terminology and conventions	AM1: Technical project
K11	Ethical principles as applied to building services engineering and the security of data and information	AM2: Professional discussion
K12	The values and standards by which they maintain their personal, professional, and technical knowledge and skills through initial professional development (IPD) and continuing professional development (CPD)	AM2: Professional discussion
Skills		
S1	Apply appropriate building services engineering principles, techniques, and methods, including mathematical, scientific, and technical know-how, to building services engineering and the construction or manufacturing process	AM1: Technical project
S2	Apply key principles, techniques and methods of data and technical information collection, analysis and evaluation to support the delivery of building services engineering models (such as Building Information Modelling), designs, and technical solutions	AM1: Technical project
S3	Operate computer-based software packages, such as Computer Aided Design (CAD) or modelling software (Revit) to produce and present technical information and documentation with relevant conventions and engineering terminology	AM2: Professional discussion
S4	Apply statutory health, safety and welfare policies, procedures, and regulations in the building services engineering environment, using risk management processes, procedures, and documentation	AM2: Professional discussion
S5	Support and contribute to the production or modification of building services engineering technical solutions in accordance with relevant industry standards, procedures, codes of practice, regulations, and legislation, such as the Building Safety legislation.	AM1: Technical project
S6	Apply principles of sustainable development, including those relating to United Nations Sustainable Development Goals (UNSDG), environmental policies and legislations in building services engineering projects, recognising the need to reduce carbon use, lower emissions, and wider sustainability	AM1: Technical project
S7	Plan, carry out and manage own work in line with quality assurance systems and processes, recognising the wider implications to customer needs, and within cost and resource limitations	AM2: Professional discussion
S8	Consider equality, diversity, and inclusion in the delivery of building services engineering projects	AM1: Technical project
S9	Apply document control processes and procedures using the approved processes, maintaining quality	AM2: Professional discussion

	compliance when creating or amending engineering documentation	
S10	Communicate using appropriate methods for the audience, and incorporate relevant and appropriate terms, standards, and data	AM1: Technical project
S11	Apply ethical principles to building services engineering projects, including the secure use of data and information	AM2: Professional discussion
S12	Plan, undertake and review their own professional competence, regularly updating and reviewing their CPD to improve performance	AM2: Professional discussion
Behaviours		
B1	Complies with health, safety and welfare requirements, industry standards, statutory regulation and legislation, policies, and codes of practice	AM2: Professional discussion
B2	Works independently, operating in a systematic, proactive, and transparent way, using resources effectively to complete tasks, knowing their limitations and when to ask for support or escalate	AM2: Professional discussion
B3	Applies a structured approach to problem solving with attention to detail, accuracy, and diligence	AM1: Technical project
B4	Is motivated when collaborating in teams, offering sensible challenge, reflects on and provides constructive feedback and contributes to discussions	AM2: Professional discussion
B5	Maintains professional and ethical working relationships with internal, external, and connected stakeholders	AM2: Professional discussion
B6	Takes responsibility for their own professional development, seeking opportunities to enhance their knowledge, skills, and experience	AM2: Professional discussion