



# Building Services Engineering Site Management

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END POINT ASSESSMENT GUIDANCE – ST0040

CIBSE

222 BALHAM HIGH ROAD, LONDON SW12 9BS | [MEMBERSHIP@CIBSE.ORG](mailto:MEMBERSHIP@CIBSE.ORG) | +44 (0)20 8772 3650

## Introduction

During your apprenticeship you have undertaken many tests and assessments. To complete your apprenticeship, you need to be finally assessed by an external panel, unconnected with your employer. This assessment involves a technical project and a structured interview. Your apprenticeship should have equipped you with the knowledge, skills and understanding to easily satisfy this. The process is known as an **End Point Assessment**.

This Guide explains how to apply for and complete your End Point Assessment. Success in the Assessment will also enable you, if you wish, to become a registered Incorporated Engineer (IEng) and to become a 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 [membership@cibse.org](mailto:membership@cibse.org). Please include the words End Point Assessment in the title bar of your email.

## Applying for an End Point Assessment

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 or Knowledge, Skills and Behaviours. You should consider how the apprenticeship has equipped you for progression and whether you are ready to undertake the final qualification, the End Point Assessment. Readiness to apply for the End Point Assessment will then be decided by your employer in consultation with your training provider.

When all parties are agreed, please visit [www.cibse.org/epa](http://www.cibse.org/epa) and complete the **Online Application Form**.

Preparation is helpful here. You will need to upload copies of all the qualifying documents and relevant information when you submit the form, so it is a good idea to have these to hand before you login to MyCIBSE.

You will need the following documents:

Level 2 Maths and English certification or proof of successful completion.

BEng (Hons) Building Services Engineering or equivalent Level 6 Building Services Engineering Diploma

Industry certificates in Site Safety, plus the Site Managers' Safety Training Scheme and the Site Environmental Awareness Training Scheme

Unique Learner Number (10 digits available from your provider).

Contact details for your sponsor employer and training provider.

If you would like your application to be considered for professional recognition, then you will also be asked for the following:

Organisation Chart for your employer clearly showing your position at the company.

Development Action Plan.

## What happens next

Following receipt of the *Gateway* application form, CIBSE will check and confirm whether you satisfy the requirements to enter the *Gateway*. We will then send an email to your named employer and training provider to sign 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 a guide to the required projects, the research assignment, useful resources, and more information about the interview itself.

You have approximately 11 weeks from the *Gateway* entry until your interview day.

### What you will need to prepare for your EPA.

The full assessment plan for this apprenticeship standard can be found here: [Assessment Plan Level 6 Building Services Site Management - IFATE](#)

## 1. The Engineering Practice Report

With your Research Assignment you will need to submit a separate written report of between 4500 – 5000 words in which you demonstrate how, in the course of your apprenticeship, you attained **the knowledge, skills and behaviours expected of a competent building services engineering site manager**.

The Report should be a reflective review of your career and experiences to date including:

- A general overview of the type of work and training you have undertaken.
- A table setting out the different projects in which you have participated, and which you will describe later in the body of the Report. The number of projects you cite will be sufficient to demonstrate your achievement of the full range of knowledge, skills and behaviours set out in the Standard. This could be one long-term project or a number of shorter-term projects.
- A summary of key features of each project chosen – client, scope, value and dates.
- An account of how the experience gained in each project was linked to achievement of the knowledge, skills and behaviours listed in the Standard; your role; and insight into the important decisions you were responsible for or made a significant contribution to. The examples should demonstrate where you exercised independent judgment – as an engineer and a practising professional.

See Annex B for details of the criteria you must satisfy through your Engineering Practice Report and Interview.

Remember to include a title page for your Report, which states your word count. Clearly state your role and responsibilities; use the first person – *I, me, my* – to show the reader your personal contribution.

Your report will need to be certified by an Engineering Council registrant – Chartered Engineer, or Incorporated Engineer - and preferably a member of CIBSE. Please contact CIBSE if you have any difficulty in finding a qualified engineer to do this.

Your Engineering Practice Report should be submitted on a given date at least 3 weeks before your *End Point Assessment* interview and will be used to inform the Structured Interview on the day.

## 2. The Research Assignment

The Research Assignment Brief will be designed to enable your assessors to evaluate whether you have gained the ability to integrate and use the range of knowledge, skills and understanding you have acquired during your apprenticeship.

Your response to the Research Assignment Brief should be in the form of a 15-20 minute presentation delivered at the *End Point Assessment* interview, followed by a 15-20 minute question and discussion session. Preparation should take around 30-40 hours.

The Assignment will require you to:

- Research and analyse the design, performance and/or delivery of building services systems and components with a view to innovation or improvement.
- Discuss the advantages and disadvantages of the chosen improvement or innovation paying particular attention to its impact on sustainability (e.g. energy usage, waste management, whole-life costing).
- Consider what changes need to occur to make the chosen improvement or innovation a reality. This will include critically examining the role of the design authority, asset owner, asset manager and supply chain in encouraging or impeding the deployment of the improvement or innovation.
- Make an informed prediction as to what will happen justifying your prediction with evidence from the market.

In undertaking the Research Assignment, you will need to make some decisions about your proposed approach to address issues raised by the Brief. The response should be **entirely your own work**, although you are permitted to seek advice from your employer or Training Provider.

For remote interviews you will be required to screen share your work in MS Teams.

**We will ask you to upload a copy of your presentation at least 5 days prior to your interview date.**

## Your End Point Assessment Interview

You will need to have available and original item of identification<sup>1</sup>, which must include your photograph, to your interview. Your interview will be conducted by two trained and

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<sup>1</sup> For example, student card, passport or driving licence.

experienced CIBSE-appointed assessors. (There may on occasion be an observer present, but they will not be there to assess you).

After introductions you will make a 15-20 minute presentation to the Assessor Panel on your response to the Research Assignment, supported by the 'hard copy' you have prepared. The presentation will be followed by 15-20 minutes of questions and discussion.

The presentation and questions following this, together with the 'hard copy', will be marked according to the criteria set out in Annex B and awarded a mark of Pass or Fail.

### 3. Structured Interview

This is then followed by a 40-50 minute structured interview with the Assessor Panel. The purpose of the discussion is to enable the Assessors to assure themselves that you have the competence to work as a Building Services Engineering Site Manager. The questions will focus on the occupational specialism(s) demonstrated in the Engineering Practice Report.

Tips on preparing for your interview may be found at

<https://www.cibse.org/membership/help-for-applicants/interview-guidance>

**If you are applying for professional review your application must also include:**

#### **Development Action Plan**

A statement of how you intend to continue with your personal and professional development. It is required that all engineers show commitment to keeping up to date with developments and with maintaining their skills and expertise. You should identify your short (1-3 years), medium (3-7 years) and long term (7-10+) goals and indicate how you propose to meet them. Examples are available online at [www.cibse.org/applicanthelp](http://www.cibse.org/applicanthelp)

#### **Organisational Chart**

A departmental organisation chart which clearly indicates your position within your department/company and who you report to.

#### **Success in completing your *End Point Assessment***

You, your employer and your Training Provider will receive confirmation of the result of your *End Point Assessment* following review and approval by CIBSE, normally within 8 weeks of your interview. CIBSE upload your results to the ESFA who will issue your official certificate.

If you have successfully completed your *End Point Assessment*, you will have met the standards for registration as an Incorporated Engineer. Hence, notification will be accompanied by an invitation to apply for Associate Membership of CIBSE (ACIBSE). This will enable you to register with the Engineering Council as an Incorporated Engineer. Membership and registration both require you to undertake to meet the ethical requirements for practice as an Incorporated Engineer, which include undertaking continuing professional development, to maintain your skills and knowledge. There is also an annual fee to retain your membership and registration (see below).

## Things you need to bear in mind.

### Location of your Assessment

All End Point Assessment Interviews are conducted remotely using Microsoft Teams.

### Problems in undertaking the *End Point Assessment*

If you are unable to complete the Report and Assignment 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 Research Assignment 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 Engineering Practice Report or your Research Assignment response. If CIBSE detects that you have employed outside assistance, 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.

### Unsuccessful Applications

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 have to apply to resit or retake the *End Point Assessment* considering assessor feedback on areas where you did not demonstrate competence. If you pass the Research Assignment presentation you only must retake the Structured Interview. The retake or retake will include a Structured Interview even if it was passed first time round. This must be taken within 12 months of the original *End Point Assessment*.

### Appeals

CIBSE operates an appeals process for applicants who wish to challenge the outcome of their application. Details appear on our website at [Appeals](#)

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 at [https:// www.cibse.org/epa/](https://www.cibse.org/epa/)

## **Fees**

Details of the fees for membership of CIBSE and Engineering Council Registration may be found at [Fees](#)



## Annex A - EPA Process Summary



## Annex B - Criteria for success

To pass the EPA you must demonstrate achievement of all the following criteria. (References K1,S2, etc refer to Annex A of the Standard ST0040).

End point assessment method	Pass criteria
<p><b>Presentation</b> (based on response to the Research Assignment. The presentation and questions following this, together with the 'hard copy', will be marked)</p>	<p>Provide evidence of knowledge, skills and behaviours required to</p> <ul style="list-style-type: none"> <li>• Maintain and extend a sound theoretical approach to the application of technology in engineering practice (K1, K2, K3, S1, S2)</li> <li>• Use a sound evidence-based approach to problem-solving and contribute to continuous improvement (K2, K6, K10, S2, B2)</li> <li>• Identify, review and select techniques, procedures and methods to undertake engineering tasks (K1, K2, K12, S1, S2, S8, B2)</li> <li>• Contribute to the design and development of engineering solutions (K1, K2, K3, K11, S1, S2, B2)</li> <li>• Implement design solutions and contribute to their evaluation (K1, K3, K10, K12, S1, S2, S5, S8, B1, B2))</li> <li>• Plan for effective project implementation (K4, K5, K6, K8, K9, S3, S7, B1, B2)</li> <li>• Manage tasks, people and resources to plan and budget (K4, K5, K7, K8, K9, S3, S4, S7, B1)</li> <li>• Manage teams and develop staff to meet changing technical and managerial needs (K5, K8, K9, S3, S7, B1, B4)</li> <li>• Manage continuous quality improvement (K6, K12, S3, S8, B2)</li> <li>• Communicate in English with others at all levels (K8, S7, B1)</li> <li>• Present and discuss proposals (K8, S7)</li> <li>• Demonstrate personal and social skills (K8, S7)</li> <li>• Comply with CIBSE code of conduct (K1, B3)</li> <li>• Manage and apply safe systems of work (K10, S5, B3)</li> <li>• Undertake engineering activities in a way that contributes to sustainable development (K11, S6)</li> <li>• Carry out and record Continuing Professional Development (CPD) necessary to maintain and enhance competence in one's area of practice (B4)</li> <li>• Exercise responsibilities in an ethical manner (B3)</li> <li>• Show how they have, or would, use Building Information Modelling (BIM) to access and work with data (K2, K6, K12, S1, S2)</li> </ul>

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<p><b>Structured interview</b></p>	<p>Provide evidence of knowledge, skills and behaviours required to</p> <ul style="list-style-type: none"> <li>• Maintain and extend a sound theoretical approach to the application of technology in engineering practice (K1, K2, K3, S1, S2)</li> <li>• Use a sound evidence-based approach to problem-solving and contribute to continuous improvement (K2, K6, K10, S2, B2)</li> <li>• Identify, review and select techniques, procedures and methods to undertake engineering tasks (K1, K2, K12, S1, S2, S8, B2)</li> <li>• Contribute to the design and development of engineering solutions (KK1, K2, K3, K11, S1, S2, B2)</li> <li>• Implement design solutions and contribute to their evaluation (K1, K3, K10, K12, S1, S2, S5, S8, B1, B2)</li> <li>• Plan for effective project implementation (K4, K5, K6, K8, K9, S3, S7, B1, B2)</li> <li>• Manage tasks, people and resources to plan and budget (K4, K5, K7, K8, K9, S3, S4, S7, B1)</li> <li>• Manage teams and develop staff to meet changing technical and managerial needs (K5, K8, K9, S3, S7, B1, B4)</li> <li>• Manage continuous quality improvement (K6, K12, S3, S8, B2)</li> <li>• Communicate in English with others at all levels (K8, S7, B1)</li> <li>• Present and discuss proposals (K8, S7)</li> <li>• Demonstrate personal and social skills (K8, S7)</li> <li>• Comply with CIBSE code of conduct (K1, B3)</li> <li>• Manage and apply safe systems of work (K10, S5, B3)</li> <li>• Undertake engineering activities in a way that contributes to sustainable development (K11,S6)</li> <li>• Carry out and record Continuing Professional Development (CPD) necessary to maintain and enhance competence in one’s area of practice (B4)</li> <li>• Exercise responsibilities in an ethical manner (B3)</li> <li>• Show how they have, or would, use Building Information Modelling (BIM) to access and work with data (K2, K6, K12, S1,S2)</li> </ul>
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