



## CIBSE Membership Fact Sheet

# Member (MCIBSE) – M20

*The scope of building services engineering applications is recognised to be heating, lighting, refrigeration, acoustics, air-conditioning, ventilation, water, plumbing, power systems, vertical transport, control systems, fire and security, alarm systems, facade engineering, public health, integrated systems and intelligent buildings, including environmental and sustainability aspects. It may include roles in facilities management, project management, construction management, research, development and education.*

### To become a Member of CIBSE you need

- to be able to demonstrate competence within the field of Building Services Engineering
- to submit an Engineering Practice Report, work experience listing, organisation chart and development action plan
- to participate in an Interview

CIBSE has established competence criteria for the Member grade (see fact sheet M21). You demonstrate your competence through your Engineering Practice Report by showing you can:

- Demonstrate analytical and problem-solving skills
- Evaluate evidence, arguments and assumptions
- Reach sound judgements
- Communicate effectively

**The ability to satisfy the competence requirements is the principal benchmark for Membership.**

### Application Guidance

In addition to the information given in this fact sheet, CIBSE offers assistance with applications through briefing sessions that are held around the regions. See also our website, [www.cibse.org](http://www.cibse.org), for further information including frequently asked questions and examples of successful applications, or contact the Membership and Registration team on +44 (0)20 8772 3650.

### Fees

Please see factsheet I20 for current fees.

Transferring members, please note: applications cannot be processed if current subscription fees are outstanding.

### How to register as a Chartered Engineer

CIBSE is a licensed body of the Engineering Council UK and may nominate suitably qualified and competent engineers to the UK Chartered Engineer register.

### Exemplifying Academic Requirements for CEng

The academic standard for MCIBSE with CEng registration for UK qualification holders is any EC<sup>UK</sup> listed BEng(Hons) degree plus a period of further learning to Master's level or an accredited MEng

degree or an accredited BEng(Hons) degree started prior to September 1999. For full details on EC<sup>UK</sup> listed accredited courses, see [www.engc.org.uk](http://www.engc.org.uk). For non-UK qualifications please refer to fact sheet M22.

***CIBSE will be happy to advise you on an individual basis if you provide full details of your qualifications to date –ask us for a qualification assessment form!***

## Technical Report Route to CEng Registration

Candidates who do not possess the formal academic qualifications for CEng registration, but who have appropriate professional experience and technical expertise may be eligible for registration at this level by completing a technical report. The scope of the technical report will be determined case by case depending on professional experience and any qualifications obtained.

The content of the Technical Report will be assessed at an interview, after which the candidate's professional competence is evaluated at a Professional Review Interview.

**As candidates must successfully complete the application process for MCIBSE before being eligible to apply for CEng Registration through the Technical Report Route**, an interview will already have been held at the MCIBSE stage. The Professional Review at the Technical Report stage will therefore concentrate on experience gained in the intervening period.

***Guidance on the Technical Report Route is provided in fact sheet M23.***

## Already a registered Chartered Engineer?

If you provide proof of registration and your registration number with your application, an accelerated route is available and it may not be necessary for you to undertake the Competence Review for MCIBSE. CIBSE, however, requires you to provide a full detailed account of your work experience, demonstrating your level of competence and responsibility within the field of Building Services Engineering.

## Mutual Recognition Agreement

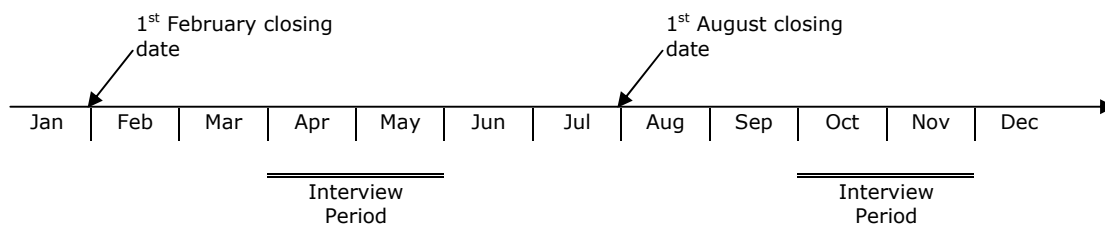
Please note that the Mutual Recognition Route into membership is not acceptable to other bodies (e.g. Hong Kong Institution of Engineers, Engineers Australia) for membership. This route only covers those who apply to CIBSE via the normal route which includes completion of an Engineering Practice Report and attendance at a Professional Review interview. See fact sheet M24.

## Applying for the Member grade of CIBSE

All applicants for MCIBSE must demonstrate that they have obtained the necessary competence level for that particular grade. This is done through written documentation submitted with the application form and through participating in a competence-based interview. This guide has been designed to provide information on how to prepare the documentation, outline the application process, advise on the interview format and how to best prepare.

## Timetable

There are two application closing dates per year, 1<sup>st</sup> February and 1<sup>st</sup> August. Applications for MCIBSE will be accepted throughout the year, however, interviews will be held during two designated interview periods each year. It is therefore important that you submit your application in good time before the interview period and no later than the closing dates.



Overseas interviews, where this service is provided, will be held throughout the year.

# Your Application

The application is in five parts:

- **Application Form**
- **Work experience listing**
- **Engineering Practice Report**
- **Organisation chart**
- **Development Action Plan**

## Application Form

It is important that **contact details** provided are accurate and up to date. Should any of them change during the course of your application being processed you need to contact CIBSE immediately to ensure that we are able to notify you of progress. ***CIBSE is committed to environment friendly policies. Please ensure you provide email and telephone contact details to help us cut down on paper communications.***

Information of qualifications obtained must be supported by enclosing **signed copies of certificates**. *For overseas applicants where the certificates are in other languages than English, an approved English translation must also be provided.*

Your **Sponsor** should have known you for a minimum period of one year and will normally be a Member or a Fellow of CIBSE or other engineering institution. S/he can also be a professionally registered person with a non-Engineering Council nominated institution within the construction industry.

A sponsor is responsible for ensuring that they are satisfied that the information in your application is true and that you are applying for the appropriate level of membership. They must **endorse copies** of qualifications, having seen the originals. *Please ensure that they read this guide and the Competence Criteria on fact sheet M21.*

Remember to sign your application form before submitting it to CIBSE.

### Checks:

- ✓ Has your sponsor signed both your application form and copies of qualification certificates?
- ✓ Have you signed the form?
- ✓ Have you included card payment details or enclosed a cheque covering the interview fee and application fee if applicable?

## Work Experience Listing

This document should outline previous **roles and responsibilities** in chronological order. Should you wish, your existing CV can be enclosed for this purpose. *References to the Competence Criteria should **not** be included in this section.*

## Engineering Practice Report

Your Engineering Practice Report (EPR) should clearly demonstrate how you have **achieved competence** at a **level of responsibility** suitable for the Member grade. The CIBSE competence framework is based on the EC<sup>UK</sup> Threshold Standards of Competence and Commitment and is divided into the same sub-sections. They are:

- A. Use a combination of general and specialist engineering knowledge and understanding to optimise the application of existing and emerging technology.
- B. Apply appropriate theoretical and practical methods to the analysis and solution of engineering problems.

- C. Provide technical and commercial leadership.
- D. Demonstrate effective interpersonal skills.
- E. Demonstrate a personal commitment to professional standards, recognising one's obligations to society, the profession and the environment.

Each of these sections contains individual objectives with a range statement and to assist you we have included examples specific to Building Services (see fact sheet M21).

## Writing your Report

### 1. Review your career and experience to date.

The interviewers will be interested in what **you** have done, your role and responsibilities in a particular career episode and what you know about the different aspects related to it.

*Note for researchers and lecturers:*

*Where your employment profile makes it difficult to provide evidence of first hand involvement in some aspects of the Competence Criteria, you are encouraged to show understanding and awareness of these issues through reading of journals and trade press, engagement with student projects or through simulations or business games. As an example, objectives listed under management could be contextualised to the supervision and management of student projects and timetabling, student selection and recruitment activities and involvement in quality theory.*

### 2. Compile your report, making reference to all 16 competence criteria listed. (see fact sheet M21)

Within each of the sections A – E (see previous page) you need to be **fully competent** in 60-70% of the competence criteria, and show your awareness and understanding of the remainder.

Begin with a short **introduction** to give a general picture, in a few sentences, of the type of work and professional development you have had to date.

The report should be approximately **4,000 words**.

An example is given on pages 6-7 of this fact sheet of how you may wish to format your report. However you choose to present your EPR, it must be clear which competences you are claiming.

Please note that you may **not** use the CIBSE logo or any other CIBSE official images in your report.

#### Checks:

- ✓ Have you referred to all 16 competence criteria?

### Organisation Chart

Your organisation chart should clearly indicate **your position within your company**. If you are self-employed and do not have an organisation chart, please provide a brief note outlining your level of responsibility and leadership in projects undertaken. You may also enclose a previous organisation chart as long as this is clearly indicated.

#### Check:

- ✓ Is your position in the organisation clearly indicated in the chart?

### Development Action Plan

This is a statement of how you intend to continue with your personal and professional development, as it is a requirement that all engineers show commitment to keeping up to date

with developments and with maintaining their skills and expertise. You should identify your **short, medium and long term goals** and indicate how you propose to meet them. The document will be approximately one page and should **not** include past CPD records.

**Checks:**

- ✓ Does your Development Action Plan identify future goals and not past achievements?
- ✓ Have you addressed short, medium and long term goals?

**Checklist - What to send?**

- **Application form (signed by your sponsor)**
- **If applicable, qualification certificates (signed by your sponsor)**
- **Work Experience Listing**
- **Engineering Practice Report**
- **Development Action Plan**
- **CD Rom of your complete submission**
- **Appropriate Fee(s) (see fact sheet I20)**

**What happens after you have submitted your application to CIBSE?**

Following initial administrative checks, you will be notified of the route you will be following – standard or alternative, and your application will be forwarded to two registered CIBSE interviewers for assessment.

**NB:**

- **Applicants following the Standard Route will be assessed at a Professional Review interview for MCIBSE and Chartered Engineer Registration.**
- **Applicants following the Alternative Route will be assessed at a Competence Review interview for the Member grade (MCIBSE). Advice on obtaining CEng will be given.**

**Example Report Format**

The **introduction** to your Engineering Practice Report should give a general picture in a few sentences, of the type of work and training you have done in your career.

It should also list, in table form, the different projects or career episodes you mention in the body of your Report. This will help the reader when you refer back to the name of a project you have already used elsewhere. For example:

Jan – June 05	Gooding Finance	office block refurbishment central London : prepare design brief
July – Sept 05	Gooding Finance	design refurbishment plans – architect liaison
Feb - Aug 06	GlobalAssure Training Centre	listed building + extension near Bath
etc		

In the example below, notice how the writer

- separates the three projects/episodes in his layout, to help the reader
- summarises the key features of each project – client, scope, value, dates – before describing the details
- clearly states his own role and responsibilities in each
- **does not** describe every detail of what he did day by day...BUT
- **does** describe in detail the incidents which relate directly to the Competence Criteria he is referring to
- repeatedly uses the first person – I, me, my – to show the reader what his personal contribution was

**Sample excerpt from an Engineering Practice Report to support application for MCIBSE**

<b>career episode</b> <b>Gooding Finance: Jan – September 2005</b>	<b>MCIBSE Competence Objective</b>
<p>Client was a London-based financial services company. They had contracted us at A.R. Design Consultants to provide the building services engineering input to the development team for refurbishing a central London office block purchased by the client. Our part of the overall contract value was the largest, approx. £6m.</p> <p>The contract involved production of the design brief for the installation of heating, lighting, a/c, ventilation, fire and security systems and standby generation within an existing building shell. The A.R. team was led by John Smith, Principal Engineer. My role was as <b>Assistant Mechanical Engineer</b>. I was responsible for the <b>power generation and ventilation</b> elements of the project, and also contributed to the <b>lighting solutions</b> presented.</p> <p>At the first meeting with the client, they outlined their requirements, emphasising their wish for <b>environmentally friendly</b> features, including natural ventilation.</p> <p>At the next meeting (February 1999) I presented my contributions to the technical brief, supported by appropriate data and diagrams:</p> <ol style="list-style-type: none"> <li>1. Install <b>photo-voltaics</b>. This would reduce capacity of standby power, (to support only cooling and computing systems) based on load shedding. However the client would not accept a reduction in standby power, and the photo-voltaics option was rejected on cost grounds.</li> <li>2. I explained why the nature of the building and the city centre location (air quality etc) made natural ventilation impossible. I proposed as an alternative a <b>VAV a/c system</b> with fans controlled by variable speed drives to improve workspace energy efficiency.</li> <li>3. I proposed low energy lighting using luminaires with individual controls which were accepted</li> </ol> <p>I presented and explained tables of <b>projected energy consumption and emissions</b> associated with the above 3 building services engineering solutions. Based on these, the client was satisfied that the environmental benefit lost through sacrificing photo-voltaics would be compensated for by energy efficient ventilation and lighting</p>	<p><b>A1, B2</b></p> <p><b>D2</b></p>
<p><b>career episode</b>  <b>Gooding Finance: July – September 2005</b></p>	
<p>At this stage of the project, we had had our technical brief accepted and were appointed as principal Project Consultants. The client had appointed Ann Winters, an architect, and Mike Abrams, a Civil Engineer, to represent them.</p> <p>Although the first six floors of the block were to remain as they were, with open-plan office accommodation, structural modifications were being made to convert the floor space in the top two floors to luxury office suites for the Directors.</p> <p>As <b>Mechanical Engineer</b> I had to liaise with Ann and Mike to ensure that the <b>building services engineering solutions already agreed would not conflict with structural changes</b> to the space.</p> <p>The erection of <b>fire walls</b> posed a particular problem. The architect's drawings showed them in positions where they would have to be breached to install the mechanical services, specifically the VAV a/c. Ann's principal concern was that proper structural divides would impose new loads, which would be impractical given the open-plan spaces beneath. As a result of <b>deconfliction process meetings</b>, the final solution was reached, with ventilation ductwork restricted to the outer walls wherever possible. Breaking through sidewalls was minimised by careful <b>zoning</b>.</p> <p>Meeting fire regulations, was not straightforward. We had several meetings with the local Fire Officer regarding the sprinkler coverage before the plans were finally approved. A Wormald mist sprinkler system was used.</p>	<p><b>D3, A2</b></p> <p><b>E1</b></p>

<b>career episode</b> <b>Global Assurance Training Centre, Bath: February – August 2006</b>	
<p>GlobalAssure had acquired an 18<sup>th</sup> century country house near Bath for extension and conversion to become their Corporate Training Centre. A.R. won the building services engineering design contract, worth <b>£1.2m</b>. It comprised providing all services in the new extension, together with rewiring, heating, fire protection and plumbing work in the old building, and installing a catering kitchen.</p> <p>The contract included responsibility for <b>obtaining statutory approvals</b>. As <b>assistant to the Principal Consulting Engineer</b> I was involved in all aspects of the project, and acted as his deputy.</p> <p>Before planning for the installation of electrical and mechanical engineering services could begin, our technicians made <b>survey drawings</b> of the interior of the listed building. Using our Apple Mac networked system, I input the survey drawings in <b>digital format</b>. Our plans had to minimise damage to the existing interior surfaces, which included painted ceilings, original Chinese silk wall coverings, and some 17th century marble mosaic floors.</p> <p>For the newly-built 1100 sq. metre extension, I used <b>AutoCAD R14</b> for drafting. In both the original and new sections of the building I used <b>HEVACOMP</b> to determine a/c loads and Cablemaster for sizing the distribution cables.</p> <p>In a team led by the Architect, we met <b>English Heritage</b> in four site meetings, and satisfied them that our plans, including hard wiring for fire alarms and breaching of exterior walls for kitchen ventilation would, by using the best possible routing for mechanical and electrical services, cause the minimum of damage to the fabric of the Grade 1 Listed building. All cabling was achieved with surface trunking to protect original floor and wainscoting.</p>	<p><b>C1</b></p> <p><b>B2</b></p> <p><b>D1</b></p>

**NB: Complete engineering practice reports from a wide range of building services are available on [www.cibse.org](http://www.cibse.org) in the members' area.**

## Your Interview

Candidates applying for MCIBSE will be assessed either at a Professional Review Interview or a Competence Review Interview depending on their academic qualifications.

The **Professional Review Interview (PRI)** assesses candidates following the Standard Route. After the interview, the interviewers' recommendation is forwarded to the Registration Panel where a final decision on CIBSE Membership (MCIBSE) and ECUK Registration (CEng) is made.

The **Competence Review Interview (CRI)** assesses candidates following the Alternative Route. After the interview, the interviewers' recommendation is forwarded to the CIBSE Members' Panel where a final decision on CIBSE Membership (MCIBSE) is made. The candidate will be encouraged to pursue Chartered Engineer Registration either through further academic study or by submitting a Technical Report Route application.

**NB: As the same set of criteria are assessed both at the PRI and CRI, the guidance notes below apply to both types.**

The interview, to be held in your local region or at CIBSE Head Office, will be conducted by two senior members of the Institution. (CIBSE may also appoint one or more observers to sit in, but they will take no part in the questioning).

UK applicants will be asked to attend their Review during the designated interview period. Should you need to cancel a scheduled interview, the Institution may make an administrative charge and an alternative date may not be available during the same interview period.

Overseas applicants who are to be interviewed in their region will be contacted by the regional co-ordinator with interview arrangements. Please refer to the application form for information on which regions hold interviews.

## How to prepare for your Interview

Prepare a **15-20 minute** presentation on a career episode or episodes from your Engineering Practice Report where you have taken a leading role. For example, explain how you

- established opportunities and limitations
- researched, costed and selected components to meet the client's needs
- found solutions to technical and other problems
- coped with unforeseen complications

This must show how your **personal contribution** helped to achieve a successful outcome.

**You may bring** to the interview visual aids which are relevant to your presentation: *for example*, photographs and technical drawings. Should you wish to do a Powerpoint presentation, we recommend that you bring your own laptop computer for this purpose.

**Extend and develop** material presented in your *Engineering Practice Report*, but do not simply repeat it. Your interviewers will already be familiar with what is in your *Report*.

**Read** the *CIBSE Journal* to ensure you are up to date with recent issues and developments within the profession. Ensure that you are familiar with the CIBSE Code of Conduct.

**Look again** at the *CIBSE Competence Criteria*, as these are the criteria your interviewers will be using when assessing your competence at the interview.

As well as discussing your areas of special expertise, the interviewers will expect you to show some awareness of areas of building services engineering where you have not had direct experience.

## The Interview

Following assessment of your application, you will be informed by letter of the date, time and location of your interview.

Remember to bring with you to the interview a piece of photographic ID. This will be checked at the start of the interview.

The interviewers will start by asking you to make your presentation. They will question you on the contents of your presentation during or after, whatever you prefer. Their questioning will be based on the Competence Criteria and they will need to ensure that all sections are covered during the course of the interview.

The interview will last for approximately one hour. You should approach it with confidence, as it is intended to give you the opportunity to do the following two things:

- to discuss the achievements you are most proud of,
- to explain how you intend to contribute to the profession in the future through membership of CIBSE.

## The Decision

The interviewers will make their recommendation on your application to the **Registration Panel** or the **CIBSE Members' Panel**, depending on the Route you are following. The Panel will take into account both your **written documentation** and the **interviewers' recommendation**. You will receive the Institution's decision shortly after the Panel meeting.

**Remember: The interview is your opportunity to present your achievements as a professional building services engineer. CIBSE wants you to succeed!**