



Training and Development Manual

for Companies



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Contents

Section 1: Introduction to Training and Development (T&D)	2
1.1 Why Run an Approved T&D Scheme?.....	2
Section 2: Establishing the Scheme	3
2.1 Getting Your Scheme Approved	3
2.2 Advisory Visits.....	3
2.3 The submission document	3
2.4 The Approval Visit.....	4
2.5 Results of the Visit	5
2.6 Requirements and Recommendations.....	5
2.7 Addition to Approved list of company schemes	5
2.8 Approved company T&D scheme logo.....	5
2.9 Scheme Renewal.....	6
2.10 Fee for Approval.....	6
2.11 Recognised Apprenticeships.....	6
Section 3: Trainee Process.....	7
3.1 Registering Trainees	7
3.2 Objective Achieved Reports.....	7
3.3 Annual Reports	7
3.4 Final Report.....	7
3.5 Trainee-mentor Meetings	7
3.6 How long does the T&D stage last?	7
Section 4: How can CIBSE help?	8
4.1 Webinars and Briefings	8
4.2 Online Learning Modules	8
4.3 T&D Forum.....	8
4.4 Stay in Touch	8
SECTION 5: APPENDICES.....	9
Appendix A – Glossary of terms.....	9
Appendix B – Flexible Online Learning Modules	10

Section 1: Introduction to Training and Development (T&D)

1.1 Why Run an Approved T&D Scheme?

An approved T&D scheme allows your company to support prospective professional engineers as they develop their abilities and learn to demonstrate their competence towards becoming a corporate member of CIBSE and an Engineering Council registrant. Trainees are paired with an experienced mentor who will provide guidance and act as a sounding board as they track their progress against the relevant competences for their desired grade. In this way, trainees build a large portfolio of evidence towards their membership application, and also become familiar with the competence criteria.

A company that employs Chartered Engineers, Incorporated Engineers and Engineering Technicians will enhance its ability to win potential business. In some cases, evidence of employing registered engineers is necessary for the award of contracts in the UK and overseas.

There's no easier way to encourage your staff to become professionally registered than by running a T&D scheme. Operating a CIBSE approved T&D Scheme:

- Demonstrates your commitment to your staff's professional development and ensures that the resources are in place for everyone to succeed
- Is a great way to attract younger engineers to your business, as graduates will be looking for additional benefits of employment and support towards their professional development
- Reassures your staff that the scheme has been reviewed by a professional body
- Allows greater contact between you, your staff and the institution
- Gives trainees a structured support system to follow
- Gives you the ability to draw upon the knowledge and experience of your peers at the annual T&D Forum;
- The approval process also allows an opportunity for feedback on which aspects of your scheme are working well, and where there may be room for improvement.

CIBSE's requirements have been made as flexible as possible, to ensure that trainees should be able to balance the demands of their employer (for completion of work on specific projects or contracts) and those of the Institution (for specific learning outcomes).

The scheme demands of trainees that they:

- Plan and develop their T&D in the light of personal goals;
- Recognise and grasp learning opportunities as and when they occur;
- Describe, analyse and record the learning they have achieved.

You will be expected to provide a strong support network for trainees by ensuring they have a suitable mentor and are registered with CIBSE, and make sure that their progress is tracked with written feedback from their mentor.

Section 2: Establishing the Scheme

Below are the key steps required when establishing and approving a T&D scheme.

2.1 Getting Your Scheme Approved

The process for getting a T&D scheme approved is the same for new and re-approvals.

2.2 Advisory Visits

For newer schemes or those that are unsure of the process, CIBSE offer an advisory visit to take place prior to the approval visit. A T&D Panel member and CIBSE secretariat will visit your offices to meet with key staff involved, answer any questions, and provide an early view of the scheme's documentation if appropriate. Advisory visits are completely free of charge, and if you are interested in arranging one, please contact CIBSE Membership at membership@cibse.org.

2.3 The submission document

Companies seeking approval or re-approval are asked to provide a submission covering the following headings:

1. Identification of the scheme

- a. The titles and internal references by which the scheme/programme is formally identified
- b. The sections of the Engineering Council Register (CEng, IEng, EngTech) for which the scheme supports

2. Aims

- a. Aims of the scheme
- b. Intended annual intake (number)

3. Trainee profile

- a. Selection and entry criteria
- b. Selection process

4. The scheme environment: personnel and resources

- a. The location of the scheme, including regional offices within the company organisation and how they are integrated into the whole company scheme
- b. Job titles and names of key personnel, including line managers (e.g., highlighted on an organisation chart)
- c. List of training staff showing designated mentors, and their membership and Engineering Council registration status
- d. Comparable schemes for other professionals within the company, e.g., does the organization operate approved training schemes for other EngC Institutions?
- e. The physical environment and resources for professional development on and off the job (e.g., learning resource centres, computer-based study packages, simulators, training centres)

5. Content

- a. Outline programme structure and content indicating the depth of coverage to be offered for each objective
- b. Expected learning outcomes, cross-matched to CIBSE's Competence Objectives

- c. Specific reference in the programme content to induction, safety, and personal development of trainees

6. Collaboration with Further Education/Higher Education and further learning

- a. Whether further learning studies are offered, and the arrangements for co-ordinating these with the requirements of the T&D programme
- b. Academic links of company staff associated with the scheme, e.g. as visiting professors/lecturers, industrial tutors, external examiners, or in connection with further learning provision if any
- c. The organisation's other formal links to FE and HE for example, providing sandwich and work experience placements

7. Mentoring and support

- a. Arrangements for support and mentoring of Trainees
- b. Training of Mentors in mentoring techniques
- c. For companies seeking re-approval copies of the Interim Trainee Reports and Final Reports should be provided

8. Supervision and assessment

- a. How participants are assessed against the scheme objectives
- b. Nature and extent of supervision towards the completion of CIBSE's OARs, including arrangements for formative assessment and counselling of Trainees
- c. Whether / how assessment against T&D scheme objectives are linked to the company's general performance appraisal scheme

9. Quality assurance and future plans

- a. Arrangements for regular monitoring and evaluation of the scheme, including participant feedback and taking remedial action
- b. Data on the scheme's success to date including annual statistics on recruitment, progression, completion, drop-out, etc.
- c. How the scheme fits within the company's overall Quality Management systems
- d. Whether/how the scheme is involved in any external accreditation of training and development activities (e.g. Investors in People (IIP))

2.4 The Approval Visit

A typical visit will include the following:

- **Presentations by the company**

The first presentation should briefly cover details of the practice and its commitment to professional development and mission statement. The second presentation will cover the details of the T&D scheme and lead to an open discussion on the wider strategy, approach and culture for learning and development.

- **Interviews with Trainees**

The CIBSE Panel will conduct private interviews with a group of trainees (some may join via video link if it is more convenient), interviewed as a group. The Panel will also review their T&D portfolios (i.e. annual reports and OARs). If the scheme is based at multiple locations, CIBSE will expect to meet with trainees from each location.

- **Interviews with mentors**

The CIBSE Panel will conduct private interviews with a group of mentors, interviewed as a group. If the scheme is based at multiple locations, CIBSE will expect to meet with mentors from each

location.

- **Lunch and informal discussion**

The CIBSE Panel will usually have a buffet lunch with the scheme organisers, allowing for more informal discussions.

- **Private meeting of the Panel**

The Panel will conduct a private meeting to discuss the material and what the recommended outcome of the approval will be.

- **Feedback between the Panel and the company**

The Panel will comment on any areas of good practice and outline any aspects of the scheme that need to be improved. This discussion will feed into the visit report.

2.5 Results of the Visit

Within 4-6 weeks of the visit, CIBSE secretariat will produce a visit report. The report will be reviewed at the next meeting of the T&D Panel.

If the scheme is unsuccessful, the company will receive the visit report with feedback. CIBSE will set out why the scheme was not approved and offer assistance in bringing the scheme up to the required standards.

If the scheme is successful, following the T&D Panel meeting the company will receive a letter of confirmation and a certificate. A copy of the visit report will also be sent.

2.6 Requirements and Recommendations

The final visit report will contain any requirements and recommendations made by the Visiting Panel. Requirements must be addressed within the given time period and are a condition of the approval. They may be subject to an interim visit.

Recommendations are suggestions from the Panel as to how the scheme might be improved. At the renewal visit for the next approval period, the Panel will consider whether or not these have been addressed.

2.7 Addition to Approved list of company schemes

Once approved, the scheme will be added to the list of CIBSE approved schemes [here](#).

2.8 Approved company T&D scheme logo

Companies with approved T&D schemes receive an approval certificate for display and are permitted to use the approved T&D logo on their documentation for the duration of the approval period.



2.9 Scheme Renewal

The T&D scheme will be approved for a maximum of three years. Towards the end of the approval period, CIBSE secretariat will contact the scheme to arrange a renewal visit. The documentation required is the same as the initial submission and the renewal visit will follow the same format as the approval visit.

2.10 Fee for Approval

The fee for approval is £1,250 plus VAT. This covers administration and the approval period of your company scheme for a maximum of three years.

2.11 Recognised Apprenticeships

Whilst the T&D scheme that you are running is aligned for candidates who have already attained certain academic levels, you may also wish to run a recognised Level 3 or Level 6 apprenticeship scheme where the outcome, following the successful completion of a recognised BTEC, HND or Degree, could be the professional attainment of Engineering Technician or Incorporated Engineer as determined via the ongoing monitoring of the candidate's progress and the End Point Assessment (EPA) via CIBSE or other registered End Point Assessment Organisation.

The formatting of support for an apprentice is similar to that offered by a company for a T&D candidate in that they must have a nominated and recorded mentor who is suitably qualified and hold the regular review meetings together. The main difference for an apprentice candidate is that the timelines for completion of the process through to End Point Assessment are defined so that a professional level of registration could be achieved within a year of finishing the academic study.

If a candidate wished to move from a successful Level 3 EngTech qualification to a degree apprenticeship, the Level 3 EPA must be completed before they can commence on the Level 6 apprenticeship. The quarterly meetings between the candidate and mentor are obligatory and the yearly audit review of progress is also mandatory. There are additional review meetings that must happen, alongside the Education Provider, for the combined assessment and agreement to progress.

In addition, a candidate will also be required to record "off the job" training which must equate to a minimum of 20% of the normal working hours of the candidate. The recording format of progress is more regulated with achievements of objectives against the Engineering Council requirements being written to clearly highlight Knowledge gained, Skills applied, and Behavioural changes put into place. These are referred to as Knowledge, Skills and Behaviours (KSBs).

The processes in place for a T&D candidate are very similar to that required for an apprentice candidate, however, there are strict timelines and processes that cannot be allowed to be skipped.

For more information on End Point Assessment, visit the [CIBSE website](#).

Section 3: Trainee Process

CIBSE has produced an additional T&D manual for trainees, which you can use or adapt to support your company's scheme. This contains more detailed information regarding candidate documents; however, an overview is provided below.

3.1 Registering Trainees

Each trainee must be registered using a T&D Trainee Registration form. This should be submitted to CIBSE at membership@cibse.org.

3.2 Objective Achieved Reports

Each of the Objective Achieved Reports (OARs) uses a single template*. One OAR should be completed for each competence the trainee is required to meet for the grade of membership they are aiming for.

The aim of an OAR is to track the trainee's progress against each of the competence criteria of the grade of membership and registration they are aiming for. They should document their experience, but also take time to analyse what they have learned.

3.3 Annual Reports

An Annual Report* along with all OARs must be submitted to the mentor at the end of each year they are on the scheme. The Annual Report summarises the trainee's progress to date with the mentor's overall comments and can be formatted as a mini Engineering Practice Report to give the trainee experience in writing in this format. The OARs provide more detail against each competence.

3.4 Final Report

The Final Report should be completed once the trainee has reached the end of their time on the scheme and is close to applying for membership and registration. The Final Report only should be submitted to CIBSE. The T&D Panel will then provide feedback to inform the trainee of the strengths and weaknesses of their report.

It is usually the case that only minimal revisions will be necessary to turn the final report into the full Engineering Practice Report needed for the membership application. *For copies of the template see www.cibse.org/t-d.

3.5 Trainee-mentor Meetings

It is expected that quarterly review meetings will be held between the mentor and the trainee to review progress and OARs and set short and medium term objectives. A record of these meetings must be maintained by the mentor and copied to the trainee.

3.6 How long does the T&D stage last?

There is no concept of "time serving", so the total T&D period will last as long as it takes for a trainee to achieve the relevant Competence Objectives. In practice, it is unlikely that an adequate range of learning and responsible experience will be acquired in a total T&D period of less than four years for CEng or three for IEng.

Section 4: How can CIBSE help?

There are a number of ways in which CIBSE can support you and your trainees throughout the process.

When your engineers are ready to apply, contact CIBSE Membership to find out how we can support you. We can bespoke run in-house tailor made presentations or workshops to advise your applicants on how to apply. Contact membership@cibse.org for more information.

4.1 Webinars and Briefings

CIBSE run a number of online webinars and regional briefings covering aspects of membership such as qualification requirements and how to start your Engineering Practice Report. You may wish to promote these to your trainees, particularly those approaching the end of their time on the scheme, who may find a number of these incredibly useful.

For information on dates and how to book, see www.cibse.org/briefings

4.2 Online Learning Modules

CIBSE have developed a number of online learning modules focussed on various aspects of Building Services. These can contribute to your trainees' development and knowledge of particular subjects. For more information and details of modules currently available please see Appendix B (page 12).

4.3 T&D Forum

The Training and Development Forum is an annual event hosted by CIBSE at our headquarters in Balham, London. All interested parties are welcome to attend, whether you have an approved scheme or are looking to establish one. The T&D Panel will also be in attendance. The Forum usually contains a mixture of presentations and breakout sessions, and is a great opportunity to share best practice, get to know the T&D panel and network with other companies in similar positions.

The T&D Forum usually takes place in February, so look out for an invite towards the end of each year.

4.4 Stay in Touch

Don't hesitate to get in touch with us at membership@cibse.org or on 02087723650, we are always happy to help.

SECTION 5: APPENDICES

Appendix A – Glossary of terms

ACIBSE	Associate of the Chartered Institution of Building Services Engineers
Annual Report	Annual Interim Overview summarising progress. To be submitted with OARs to the Mentor
approved programme / scheme	A company-based T&D programme that CIBSE approves for groups of Trainees
CEng	Chartered Engineer, one of the three Engineering Council UK Registration grades
CIBSE	Chartered Institution of Building Services Engineers
CPD	Continuing Professional Development
EngC	Engineering Council
Engineering Council	the overarching organisation which links the specialist engineering institutions
EngTech	Engineering Technician, one of the three Engineering Council Registration grades
Engineering Practice Report (EPR)	E Engineering Practice Report to be submitted with MCIBSE or ACIBSE application and Development Action Plan
experience	in the context of the CIBSE T&D objectives, having been involved in a particular activity, and having knowledge of it
IEng	Incorporated Engineer, one of the three Engineering Council UK Registration grades
LCIBSE	Licentiate of the Chartered Institution of Building Services Engineers
Mentor	The mentor should be a senior engineer not working directly with the trainee on a day to day basis
MCIBSE	Member of the Chartered Institution of Building Services Engineers
OAR	Objective Achieved Report
PEI	Professional Engineering Institution. An institution licenced by the Engineering Council in the UK.
PRI	Professional Review Interview, the final stage leading to Registration as a professional engineer
T&D Registration Form	Submitted at the commencement of a T&D programme by trainees following an approved scheme
UK-SPEC	The Engineering Council's UK Standard for Professional Engineering Competence 4 th Edition, last updated in 2021.

Appendix B – Flexible Online Learning Modules

Designed by a collaborative group of key building services consultancies and contractors, CIBSE Online Learning Modules offer a practical, flexible and convenient alternative to classroom courses. Each unit has been peer reviewed and tested through this group. The units allow students to take a coordinated journey through an individual topic or a series of topics. The units form the backbone of several corporate training schemes.

Each module provides a thorough understanding of a subject with 7 hours of structured learning and a bank of material available for further reading. The supporting interactive elements help to guide the trainee through the subject matter and ensure that they finish the module with an excellent grasp of the topic. End of module quizzes will help to evaluate learning.

Companies

The online learning units have also been built to make it easy for companies to register a number of students and monitor their progress. Administrators can download reports showing students' progress and test results. To find out more go to www.cibsetraining.co.uk/online-learning, or to discuss a group's needs please contact the Events team on 020 8772 3660 or email eventbookings@cibse.org.

List of Modules

[OL01 - Cable sizing](#)

[OL02 - Introduction to M&E services](#)

[OL03 - Hot and chilled water pipework systems](#)

[OL04 - Low voltage distribution](#)

[OL05 - Heating systems design](#)

[OL06 - Lighting design](#)

[OL07 - Ventilation design](#)

[OL08 - High voltage distribution](#)

[OL09 - Air distribution](#)

[OL10 - Air conditioning systems](#)

[OL11 - Electrical commissioning and testing](#)

[OL12 - Commissioning and testing of mechanical services](#)

[OL13 – Drainage](#)