

National Recognised Standard for Electricians:

EngTech Professional Registration

This Recognised Standard is fully compliant with the UK Standard for Professional Engineering Competence (UK-SPEC) which sets out the competence and commitment required for registration as an Engineering Technician (EngTech) and other categories of professional registration.



UK-SPEC A-E Competences

The Competence and Commitment Standard for Engineering Technicians

Engineering Technicians must be competent throughout their working life, by virtue of their education, training and experience, to:

The examples given below are intended to help you identify activities you might quote to demonstrate the required competence and commitment for EngTech registration. These are not exhaustive. Moreover, you are not required to give multiple examples to demonstrate competence and commitment.

Tell us about your career, education and training. Explain how the experience you have gained has made you more competent.

A

Use engineering knowledge and understanding to apply technical and practical skills.

This includes the ability to:

The reviewers will be looking for evidence that you have the know-how to design and carry out electrotechnical installations or maintenance (inspection, test, fault finding and rectification), and were able to go beyond the immediate requirements and use your initiative and experience to solve a problem or improve a process.

A1

Review and select appropriate techniques, procedures and methods to undertake tasks.

Describe:

- An example of your electrical installation/maintenance work that was successful and the design techniques, planning and methods you used to ensure success, or
- An installation or inspection that you carried out that didn't meet expectations and explain why this was, or
- An example of where you have specified an improvement to an electrical installation, method or process and explain why this choice was made.

A2

Use appropriate scientific, technical or engineering principles.

Drawing from your direct experience, describe where you have, for example:

- Used electrical principles in the design of an electrical installation, or
- Used technical principles to diagnose and correct electrical faults in electrotechnical systems or equipment, or
- Used engineering principles to complete the commissioning of an electrotechnical system

B

Contribute to the design, development, manufacture, construction, commissioning, operation or maintenance of products, equipment, processes, systems or services.

In this context, this includes the ability to:

Explain how you contribute to one or more of these activities.

B1

Identify problems and apply appropriate methods to identify causes and achieve satisfactory solutions.

Show an example of how you have used electrical test equipment to monitor and assess the condition of an electrotechnical installation or system, in order to:

- Identify the source of a fault, or
- Identify areas where electrical efficiencies can be made, or
- Make recommendations for improvement or repair

B2

Identify, organise and use resources effectively to complete tasks, with consideration for cost, quality, safety, security and environmental impact.

Illustrate how you make decisions about:

- What Regulations, people, materials or plant to utilize during the design or maintenance of an electrotechnical installation, or planning inspections of existing installations
- Or how to use new industry techniques, tools and technologies to streamline and improve the efficiency of the installation, commissioning or inspection process
- Or how you ensured the safety of yourself and those around you during any commissioning testing or installation work
- And how you addressed sustainability and minimised the environmental impact

Describe how you have contributed to best practice methods of continuous improvement, eg ISO 9000.

C

Accept and exercise personal responsibility.
This includes the ability to:

C1
Work reliably and effectively without close supervision, to the appropriate codes of practice.

C2
Accept responsibility for work of self or others.

C3
Accept, allocate and supervise technical and other tasks.

Describe an experience or instance where you have had to accept personal responsibility for seeing a process through to completion within agreed targets.

Your evidence should show how you identified and agreed what had to be done and to what standards on a typical project.

Your evidence could include: minutes of meetings; site notes and instructions; Variation Orders; programmes of work; specifications, drawing and reports; or appraisals. Activity not associated with your job can contribute evidence.

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D

Use effective communication and interpersonal skills.
This includes the ability to:

D1
Use oral, written and electronic methods for the communication in English of technical and other information.

D2
Work effectively with colleagues, clients, suppliers or the public, and be aware of the needs and concerns of others, especially where related to diversity and equality.

You will need to show you can: contribute to discussions; make a presentation; read and synthesise information; or write different types of documents.

Your evidence could include: letters; reports; drawings; emails; minutes, including of progress meetings; appraisals; work instructions; and other task planning and organising documents. Your application itself will be relevant.

Show examples of how this has occurred, and your role at the time.

- Describe your role as part of a team.
- Describe a situation where you put your awareness into practice.

E

Make a personal commitment to an appropriate code of professional conduct, recognising obligations to society, the profession and the environment.

This includes the ability to:

E1
Comply with the Code of Conduct of your institution.

E2
Manage and apply safe systems of work.

E3
Undertake engineering work in a way that contributes to sustainable development. This could include an ability to:

- Operate and act responsibly, taking account of the need to progress environmental, social and economic outcomes simultaneously.

E4
Carry out and record CPD necessary to maintain and enhance competence in own area of practice including:

- Undertake reviews of own development needs
- Plan how to meet personal and organisational objectives
- Carry out planned (and unplanned) CPD activities
- Maintain evidence of competence development
- Evaluate CPD outcomes against any plans made
- Assist others with their own CPD

E5
Exercise responsibilities in an ethical manner.

Your commitment will be to become part of the profession and uphold the standards to which all members subscribe. You need to show that you have read and understood your institution's Code of Conduct.

The professional review involves demonstration of, or discussion of, your position on typical ethical challenges.

Provide evidence of applying current safety requirements, such as risk assessment and other examples of good practice you adopt in your work. You will need to show that you have received a formal safety instruction relating to your workplace (such as CSCS safety test in the UK), or an update on statutory regulations. In the UK an example would be COSHH requirements.

Show examples of methodical assessment of risk in specific projects; actions taken to minimise risk to society or the environment.

This means demonstrating that you have actively sought to keep yourself up to date, perhaps by studying new standards or techniques, or made use of magazines, lectures organised by professional engineering institutions, and other opportunities to network in order to keep abreast of change.

Give an example of where you have applied ethical principles as described in the Statement of Ethical Principles on page 33 of the UK-Spec – UK Standard for Professional Engineering Competence – Third Edition. Give an example of where you have applied/upheld ethical principles as defined by your organisation or company, which may be in its company or brand values.

Contextualised Education Requirements: Bespoke to Electricians

Education – Bespoke to Electricians

Education knowledge and understanding are important components of professional competence. For electricians, the required knowledge and understanding for Engineering Technicians can be demonstrated through a Trailblazer Electrotechnical Apprenticeship or industry recognised Advanced/Modern Electrotechnical Apprenticeship (at Level 3 or equivalent); or an appropriate competence based Level 3 qualification such as:

- NVQ/SVQ Level 3 Diploma in Installing Electrotechnical Systems And Equipment (Buildings, Structures And The Environment)
- NVQ Level 3 Diploma in Electrotechnical Services (Electrical Maintenance)
- SVQ Level 3 Electrical Installation at SCQF level 7
- NVQ Level 3 Diploma in Servicing Highway Electrical Systems (QCF)
- NVQ Level 3 Diploma in Servicing and Commissioning Highway Electrical Systems

Many qualifications may be acceptable as evidence that part or all of the necessary competence has been acquired. Please check the Engineering Council's searchable database of approved qualifications and programmes for information about current approved status: www.engc.org.uk/techdb

Some electricians have not had the advantage of formal training, but are able to demonstrate that they have acquired the necessary competence through substantial working experience. Electricians without the types of qualifications described above, may apply for an Individual Route assessment. This process, administered by the applicant's institution, includes assessment of **prior learning** and of **current performance**. Evidence of employer recognition of competences and relevant skills may be helpful.

Applicants should consult the IET for advice on the most appropriate option by emailing electricianregistration@theiet.org



The Engineering Council is the UK regulatory body for the engineering profession who are responsible for the UK-SPEC Standard

theiet.org/electrician-engtech

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