Unit 308: Career awareness in building services engineering

Handout 3: Building services engineering careers

**Learning outcome**

The learner will:

1. Understand how to plan for careers in building services engineering.

**Assessment criteria**

The learner can:

1.6 Define the different roles in building services engineering.

1.7 Explain opportunities for progression within building services engineering.

**Range**

**Roles**: Installation electrician, heating and ventilation service and maintenance engineer, plumber, heating and ventilation engineer, refrigeration engineer, maintenance electrician, ductwork installer, air conditioning engineer.

**Opportunities for progression**: Supervisor, manager, business owner, highly skilled in craft, sideways moves to different crafts, assessor/trainer, designer, surveyor, estimator, apprenticeship, engineer, director.

**Types**: Contract work, private, consultancy, subcontractor, casual labour.

# Building services engineering careers

Building services engineers design, install and maintain the services that are needed to allow the building to do what it is designed to. These services include heating, lighting, power and supply, lifts and escalators, health and safety, acoustics and security.

There is a growing emphasis on sustainability, and building services engineers are at the cutting edge of designing, developing and managing new technologies that help to reduce the carbon emissions of a building.

While the role increasingly demands a multidisciplinary approach, some building services engineers choose to specialise in a certain area, such as:

* installation electrician
* heating and ventilation service and maintenance engineer
* plumber
* heating and ventilation engineer
* refrigeration engineer
* maintenance electrician
* ductwork installer
* air conditioning engineer.

In all of these specialisms there are opportunities for progression within that area:

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**Opportunities**

When you have worked for a company for some time and gained experience and qualifications, there are always opportunities for sideways moves, either within the company or with another company. Here are some examples:

* Different craft area (eg general electrical installation to installing renewable microgeneration technologies – PV, wind).
* Installation to maintenance.
* Maintenance to sales.
* Domestic to commercial.

**Types of work**

**Contract work**: This means you are providing a service/labour to another company under terms specified within an agreement.

It could mean you don’t work regularly for an employer but are self-employed. This works for large contracts, as well as small domestic projects, and can boost the workload for a self-employed electrician.

**Private work**: This type of work is generally undertaken outside normal working hours. Care needs to be taken with regards to your employer’s view of private work.

Holidays, evenings and weekends allow plumbers to use their skills to earn extra money by taking on this type of work.

The HMRC also take an interest in this type of work!

**Consultancy**: Once you have gained a lot of experience and qualifications there are opportunities to be a consultant. This is a professional who provides expert advice in a particular area, such as:

* lighting design
* security alarm systems
* electric space heating
* lightning protection
* renewables.

**Subcontractor**: A subcontractor is a person or company who is hired by a main contractor to perform a specific task as part of the overall project, and are usually paid for their services by the main contractor.

A building company that does not have their own electrician may subcontract the electrical work.

**Casual labour**: This can be part-time, piece or temporary, which means the person looks for and accepts any type of work within their skill sector. You are **not** part of the permanent workforce.

It is an unreliable source of work but can offer income and experience as people progress through their career path.