



Raising Learner's Awareness about Energy Use

**LEC STAGE 1 TRAINING COURSE
SPECIFICATION**



Purpose

Raising awareness and changing behaviour can improve energy efficiency, help lower carbon emissions and reduce costs.



Aim

Learner will be presented with the minimum knowledge needed to raise his/her awareness of the impact of energy consumption.

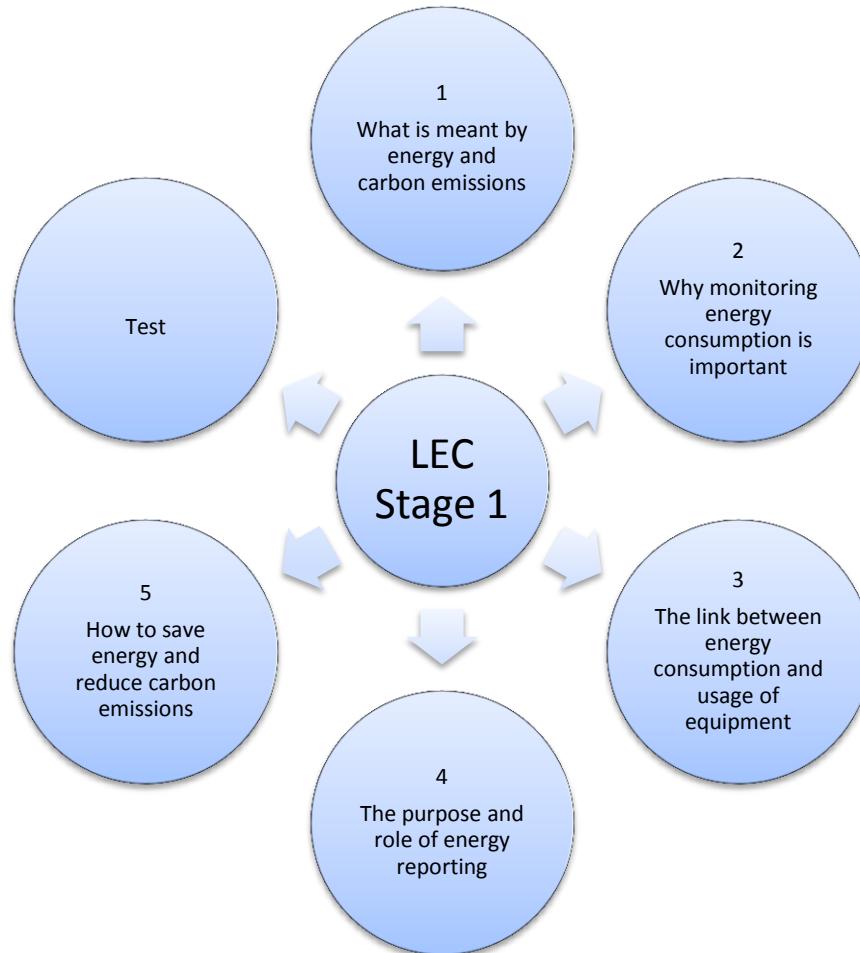
At the end of the course, the learner must know:

- What and how much energy is used in the workplace
- How that energy use can be assessed
- Their own role using energy more efficiently
- Reducing unnecessary energy use in the workplace



Course Structure

5 Areas of Focus + Test



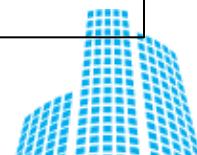
Area No.1: What is meant by energy and carbon emissions?

The Learner will:

1. Understand what is meant by energy and carbon emissions

The Learner must know:

- **What is meant by energy**
(e.g. Energy is described as the amount of work that can be done by a force. There are various forms of energy such as kinetic energy which is the energy of motion, potential energy which is stored energy like that in a battery or a tank of gas, thermal energy, electromagnetic energy, sound energy and light energy. There is also gravitational and elastic energy. (Source: <http://www.enotes.com/homework-help/how-do-write-paragraph-energy-217113>)
- **What are carbon emissions**
(e.g. Carbon dioxide (CO₂) emissions are the common type of gas emitted from the burning of fossil fuels. The higher the carbon content in the fossil fuel or the more inefficient the burning process is, generally the more CO₂ that is produced. (Source: <http://destinationcarbonneutral.co.nz/what-are-carbon-dioxide-emissions-co2-and-why-are-they-harmful/>)



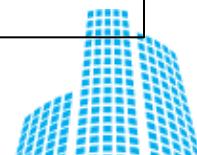
Area No.2: Why monitoring energy consumption is important?

The Learner will:

2. Understand why monitoring energy consumption is important

The Learner must know:

- Different sources of energy
(e.g. Energy sources can be classified into two types: non-renewable and renewable. Non-renewable resources, such as fossil fuels and nuclear material, are removed from the earth and can be depleted. Renewable resources, such as wind, water, solar, and geothermal, come from sources that regenerate as fast as they are consumed and are continuously available. Some, such as biofuel produced from food crops and other plants, are replenished every growing season. In the early part of the twenty-first century, renewable sources have become more popular as non-renewable sources have begun to be depleted.)
- How carbon emissions occur in the consumption of energy
- How energy consumption is measured
- How energy consumption impacts on cost, the environment, carbon emissions and security
- How the level of carbon emissions can vary depending on how and when energy is used



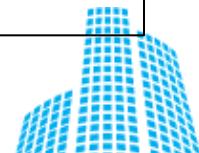
Area No. 3: The link between energy consumption and usage of equipment

The Learner will:

3. Understand the link between energy consumption and usage of equipment

The Learner must know:

- How energy consumption varies depending on the different types of equipment used
- How energy consumption changes depending on how equipment is used
- How energy saving devices can be used to reduce energy consumption



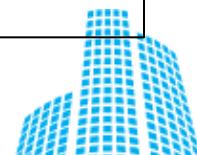
Area No. 4: The purpose and role of energy reporting

The Learner will:

4. Understand the purpose and role of energy reporting

The Learner must know:

- What is meant by energy reporting and why it is important
- What legal requirements organisations must fulfil with regards to energy reporting
- The methods organisations use to report energy consumption
- How energy reporting can contribute to reducing energy consumption



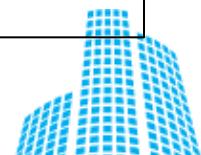
Area No. 5: How to save energy and reduce carbon emissions

The Learner will:

5. Understand how to save energy and reduce carbon emissions

The Learner must know:

- How an individual's behaviour impacts on energy use and carbon emissions
- What action can be taken to reduce energy consumption



Test

- In order to retain knowledge, learner must complete a test after each area of focus, or at the end of the course. Course providers should keep this in mind when producing their Stage 1 programme.
- Only a successful completion of the test(s) will allow candidate's registration on the Low Energy Company (LEC) database of trained candidates.



Course Format and Length

As guidance it is envisaged that any LEC Stage 1 course will be an easy to use e-learning course that can be completed in under an hour. It can be worked through collectively or candidates can save their progress and come back to it at a later stage within a limited number of days.



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