



## December Carbon Challenge Quiz

1. How much of the energy released by burning coal in a power station reaches the us as electricity?
  - a) 1/2
  - b) 2/3
  - c) 1/3
  - d) 3/4

**Answer: 1/3** -The generation of electricity in the average coal-fired power station is less than 40% efficient! Most of this energy is lost through heat escaping via the cooling towers and as it is transmitted along power lines.

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2. True or false, switching your PC on and off frequently can damage the hard drive.

**Answer: False.** In the past, switching PCs on and off frequently on old computers did cause damage but for PCs that are now used there is no risk of any damage.

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3. On average, by only boiling what I need for my coffee each day, in one year I would save enough energy to...
  - a) run a fridge-freezer for nearly a year,
  - b) heat my house all winter,
  - c) use a notebook computer for one minute

**Answer: Run a fridge-freezer for nearly a year.** Boiling water requires a relatively high amount of energy, so only boil what you need. Or better still, use a hot water tank if there is one available in your kitchen – the water is filtered and instantly hot!

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4. Does leaving your computer and monitor on at the plug when switched off still use energy?

**Answer: Yes.** Computer and monitor power transformers can still draw a small amount of power after being switched off. To ensure energy use is reduced to zero, switch them off at the mains.

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5. Turning the thermostat above the desired temperature will make the room heat up more quickly, true or false?

**Answer: False.** Setting the thermostat to above the desired temperature won't heat your office any faster. You will just have to turn it back down again as the room overheats.

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6. On average, office lights left on overnight use enough energy in a year to heat a home for
- Almost 5 weeks
  - Almost 5 months
  - Almost 5 hours

**Answer: Almost 5 months.**

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7. How much does the UK office sector spend on energy each year?
- £1.2 million,
  - £120 million,
  - £1.2 billion?

**Answer: £1.2 billion.** *If organisations implemented the energy saving measures promoted through the Carbon Challenge we could save around £180 million!*

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8. If everyone's lifestyle in the world mirrored that of the UK population we would need 1.5 planets-worth of resources to sustain it - true or false?

**Answer: False.** *We would need 3 planets to sustain those resources*

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9. How much does the heating and hot water generally account for in a buildings' energy total consumption?
- 10%
  - 80%
  - 45%
  - 60%

**Answer: 60%.** *While the Carbon Challenge focuses on electricity use, it is important to remember that we are also responsible for making sure we keep our heat inside buildings. If you spot any draughty or broken windows or leaking taps report them on the Badger system.*

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10. On estimate, a traditional set of Christmas tree lights (200 on them) on for 8 hours a day over the period of a month produces how much CO<sub>2</sub>?
- 1.032 kg
  - 10.32 kg
  - 103.2 kg

**Answer: 10.32 kg.** *According to the Guardian, a set of 200 traditional lights will cost £2.40 if used for eight hours a day for a month and will generate 10.32kg of CO<sub>2</sub> over this time according to Local Government Association.*