

### Voltage Queries



**We do our utmost to provide you with a reliable supply of electricity. Very occasionally, the quality of that supply may vary and you may experience some of the following:**

- lighting that is either very dim or very bright
- lighting that flickers
- lighting levels that vary significantly over short periods
- electric heating or cooking appliances taking longer than usual to reach the required temperature

These symptoms may be intermittent or of a more permanent nature. They are most likely to be because a breakdown is developing on our equipment or we're maintaining your supply from an alternative source of power while we repair a fault elsewhere on our network.

Sometimes increased electrical demand from natural load growth or inappropriate use of electrical machinery by someone else can be the cause.

If you are concerned about your supply please contact us and we'll be able to tell you if there are faults or problems on the network and we may be able to give you some idea of how long any repairs are likely to take.

If our emergency staff are not aware of any network problems they'll arrange for one of our technicians to visit your property, normally within 7 working days, to investigate and check our equipment. We may find something wrong straight away, or we may need to call again to fit a recording device to measure the supply for a period of one week. We'll call you to arrange a convenient date. Once we've analysed the results, we'll tell you what we've found and if we need to do any more tests or work.

#### Use of Voltage Recording Device

If we do fit a recording device to monitor your supply voltage our technician will return and collect the recorder and give the recording to one of our engineers for assessment. When we have looked at the information we'll tell you what we found and whether we need to do any further investigation or remedial work.

Although the normal voltage in the UK is 230 volts, it is not constant. The voltage at your property will vary due to the use of power and normal operation of the power supply network. Our network is designed to ensure that the voltage stays within the permitted tolerance or statutory limits.

We may supply a voltage outside these limits in exceptional circumstances, such as when there is a fault elsewhere on the network and we maintain supplies to other customers from an alternative source of power.

If the recording shows the voltage to be outside the prescribed limits we aim to complete the remedial work within 6 months of our confirmation letter. However, if we have to install cables or equipment on private land we'll need to obtain wayleaves or other legal consents before we can carry out the construction work. We also need local council approval for new substations and for certain other equipment installed on the highway. These legal formalities can take a long time to complete and, because this is outside our control, we may take longer than 6 months for these particular cases.

Even if we discover the voltage is outside the prescribed limits please be assured that the electricity meter will have accurately measured the consumption of your electrical appliances. For example, although your electric cooker may have taken longer at low voltages for the elements to heat the oven the overall consumption of electricity will be much the same because the energy is being used at a lower rate, but over a longer period.

Appliances manufactured to European Standards are built to withstand very short duration voltage rises up to 2000 volts. Rises such as this are a normal part of the operation of a supply distribution network and can be generated by customers' electrical equipment and also as a result of lightning or switching operations. Modern appliances are normally fitted with internal protective devices to limit damage to electronic components. All appliances sold in Europe are designed to operate safely and efficiently within the statutory voltage limits.

Manufacturers usually allow a further margin of safety and if the voltage does occasionally fall outside these limits there should be no adverse effect on your appliances.

In the UK, the declared voltage and tolerance for an electricity supply is 230 volts -6%, +10%. This gives an allowed voltage range of 216.2 volts to 253.0 volts.