

Safety Matters

When working near overhead power lines



Introduction

This leaflet offers safety advice to anyone working close to the overhead power lines which criss-cross the countryside, bringing electricity to us all. Transmission power lines carry electricity at voltage so high that the electricity can 'jump' gaps but even power lines carrying domestic voltage (230 volts) can be fatal.

Around five people die each year due to accidental contact with overhead power lines. The use of agricultural and construction machinery (such as tipper trucks, combine harvesters & boom sprayers) and equipment (such as ladders, scaffolding & irrigation pipes) can often bring workers close to these lines.

Notes:

- The Health and Safety Executive (HSE) publish detailed guidance for people working near power lines, **HSE Guidance Note GS6 'Avoiding Danger from Overhead Power Lines'**. This can be downloaded free and must be used to help avoid danger when working near power lines.
- Power lines can be damaged in bad weather or, for example, if machinery hits them. But even if they are broken they can still be 'live'.

- SP Energy Networks must be contacted as an emergency if a power line has been hit or damaged so that they can make the line safe. If they aren't aware of an incident they could try to re-energise the power line from a remote control room.
 - Most power lines are not insulated.
 - Power lines are often supported on wooden poles and are mistaken for telephone wires.
 - Look out for the 'Danger of Death' sign on poles and pylons, it means what it says.
 - Trees, string, ropes, suspension lines and even water can conduct electricity.
 - Rubber boots won't protect you.
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Think Ahead

- Select your machinery and equipment carefully so it can't come into contact with overhead power lines.
- Plan your work so it avoids high risk areas & uses alternative access routes that don't pass under power lines.
- Overhead lines can be difficult to see, particularly at night, or when hidden by trees.
- Take special care when felling or lopping trees.
- Plan carefully when erecting, dismantling and moving equipment such as ladders, scaffolding or agricultural polytunnels. Always carry long objects in a horizontal position.
- Plan storage areas carefully, never stacking anything directly under/near overhead lines.

- In farmyards & on farmland, avoid building up land around overhead power lines as it may compromise safety clearance.
 - If you're considering opening up farmland to the public (e.g. for camping), ensure your safety risk assessment includes overhead power lines.
 - Keep an eye out for children and visitors on your land.
 - Carry a mobile phone if working alone in case you need to call the Emergency Services.
 - Ask SP Energy Networks to supply the routes of overhead power lines & voltages running across your land or near its boundaries & mark these on your farm map/plans.
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Measure Your Machinery

Consider the risks from overhead power lines when buying new or used machinery. Find out the maximum height and vertical reach of equipment. Consider the size of both your own machinery and that used by your contractors on your land/site. And please remember:

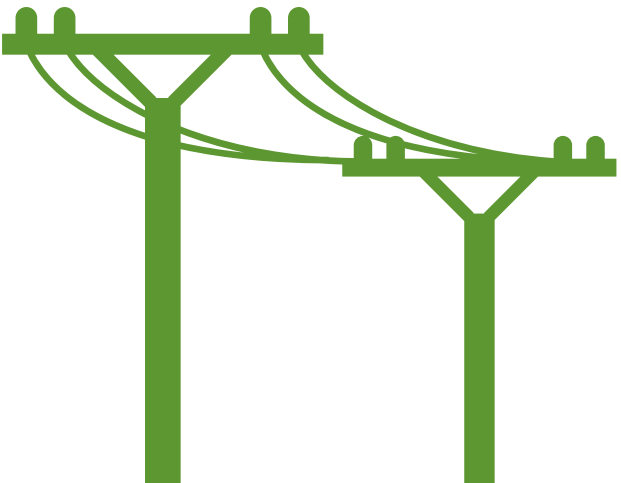
- Overhead lines should be at a minimum clearance from the ground of 5.2 metres (17 feet); however live equipment fitted on poles maybe as low as 4.3 metres (14 feet).
- Raising the bed of a tipper lorry beneath an overhead power line or driving under the power line with the body of the vehicle raised is dangerous.
- Raising or slewing of a crane or excavator jib when operating near overhead power lines is dangerous.

- A jet of water or slurry can cause discharge of electricity and a high risk of fatal or severe injury, so it's not only equipment and machinery that presents a danger.

Inform & Train People

Make sure staff, contractors and casual workers on your land/site are trained to know:

- What the yellow and black 'Danger of Death' warning sign looks like.
- To identify the location of power lines on the land/site that they are working on.
- To assess the suitability of the machinery and method of working before starting each job, especially when working near power lines.
- That workers who regularly work near power lines should be aware of the electricity local distribution network operator and know how to contact them for plans, safety advice and in emergency.
- How to keep themselves and others safe in an emergency.



In An Emergency

If your machinery is in contact with an overhead power line, or within 5 metres of a grounded line, stay inside your vehicle until the Emergency Services or SP Energy Networks arrive **unless there's a real threat of fire.**

- Keep others away even if you're in the cab; someone else touching your vehicle could result in them receiving fatal injuries.
- If possible, use your mobile to give the **Emergency Services** an accurate location, or get someone else to call them; mention that overhead power lines are involved and ask them to contact SP Energy Networks.
- If you have to get out, do not step out of the vehicle. JUMP CLEAR and take leaping strides so that one foot is off the ground at all times until you're at least 5 metres away.

SP Energy Networks will confirm when the power is off so you can be rescued by the Emergency Services.

Be Aware, Keep Away

- **Never** touch overhead power lines.
- **Always assume power lines are live**, even if they've fallen to the ground, are broken, or aren't sparking.
- **Even if the lines are 'dead', they can become live again with no notice**; this may happen automatically after a few seconds, or they can

be re-energised up to several hours later if we're unaware the line is damaged.

- **Once a line is on the ground you don't even have to touch it to be killed.** The current may travel a large distance through the ground (even further if the line has fallen on a fence or metallic object).

A clear sign



Look up and look out for power lines. If you see this sign on any equipment keep well clear, it means what it says.

Further Information

Comprehensive advice is available from the Health and Safety Executive (HSE) via www.hse.gov.uk/electricity/information/overhead.htm

Before starting work, we also strongly recommend you read the following that are available to download free of charge from the HSE website:

- HSE Guidance Note GS (6) 'Avoiding Danger from Overhead Power Lines'
- For agricultural workers 'HSE Agriculture Information Sheet AIS8'
- The Energy Networks Association produces a range of free safety leaflets available at www.energynetworks.org/electricity/she/safety/safety-advice/public-safety-leaflets.html


Contact Us

We provide free safety advice to help you stay safe near power lines.

For free safety advice and general network enquiries:

 www.spenergynetworks.co.uk

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For electricity network plans:

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 requestforplansmanweb@spenergynetworks.co.uk

Central & Southern Scotland

 0141 614 9903

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In an emergency only:

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**Central & Southern
Scotland**

 0800 092 9290

