

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 is a real threat of fire**.

- **Keep others away** even if you are in the cab. Someone else touching your vehicle could result in them receiving fatal injuries.
- If you can, use your mobile telephone to **call the Emergency Services** or get someone else to call them. Give them your location as accurately as you can. Tell them that there are overhead power lines involved and ask them to contact SP Energy Networks.
- If you have to get out, **JUMP CLEAR** rather than step off the vehicle. Jump as far away as you can, try to land on your feet, then **RUN** at least 10 metres away.

The Emergency Services have been briefed on how to undertake rescues in proximity to damaged overhead lines. An SP Energy Networks Engineer will confirm when the power has been turned off and the rescue can proceed safely.

BE AWARE, KEEP CLEAR

NEVER touch overhead power lines.



Always assume power lines are live, even if they have fallen to the ground, are broken, or are not 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 SP Energy Networks is not aware that the line has been damaged.

Once a line is on the ground you do not have to touch it to be killed. The current may travel a significant distance through the ground and even further if the line has fallen on a fence or other metallic object.

Emergency contact

In an emergency call the appropriate number:

SP Energy Networks
**Central &
Southern Scotland**
0845 272 7999

SP Energy Networks
**Cheshire, Merseyside
& North Wales**
0845 272 2424



Visit our website
www.spenergynetworks.com

Further information

The Energy Networks Association produces a range of leaflets available at www.energynetworks.org

Comprehensive advice is available from the Health & Safety Executive (HSE) via www.hsebooks.co.uk or by telephone **01787 881 165**

This Leaflet should be used in conjunction with:

- HSE Guidance Note GS6
"Avoidance of danger from overhead electric power lines"
- Health and Safety Executive (HSE) guidance leaflet,
"Shock Horror"
- HSE Agriculture Information Sheet AIS8
- HSE Guidance Note AFAG804
"Electricity at work: Forestry and Arboriculture"



**SP ENERGY
NETWORKS**

Safety matters...



...when working near overhead power lines

This leaflet is aimed at anyone who works in the vicinity of overhead power lines. It is designed to provide information to help people stay safe.

There are overhead power lines criss-crossing the countryside. Often unnoticed, they are essential to provide electricity to cities, towns, villages and rural communities. These overhead lines carry voltages ranging from 230 volts (domestic voltage) up to 400,000 volts. **Even domestic voltage can be fatal, and high voltage electricity can jump large gaps.**

Approximately **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 and boom sprayers) and equipment (such as ladders, scaffold and irrigation pipes) can often bring workers close to overhead power lines.

General key points

- Electricity systems carry voltages up to 400,000 volts. Even 230 volts (domestic voltage) can be lethal.
- **Never assume lines or electrical equipment are 'dead'**, even if they have fallen to the ground or are broken. Damaged lines can remain live or can be re-energised automatically or remotely without warning if SP Energy Networks is not aware of the incident.
- Touching electric power lines or objects/persons in contact with the lines can be fatal.
- Even the lowest voltage overhead lines can produce 10,000 times more current than is required to kill a person.
- Electricity can jump gaps.
- Trees, string, ropes, suspension lines and water can conduct electricity.
- **Rubber boots will not protect you.**
- Most overhead power lines are not insulated.
- Don't assume that lines on wood poles are telephone wires. Most overhead power lines are supported on wooden poles.
- Always carry a mobile telephone when working alone to call the Emergency Services, if necessary.

Think ahead

- Health and Safety Executive **Guidance Note GS6** provides excellent, detailed advice and can help to assess safe working clearances to overhead lines. It is strongly recommended that this is read before commencing work on site.
- Select your machinery and equipment carefully so it cannot come into contact with overhead power lines.
- Plan your work so it avoids high risk areas, taking access routes into consideration. Use alternative access routes which avoid passing under overhead 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, scaffold or agricultural polytunnels. Long objects should always be carried in a horizontal position.
- Plan storage areas carefully. Never stack anything directly under, or near to, overhead power lines.
- In farmyards and on farmland, avoid building up land around overhead power lines. This may compromise safety clearance.
- If you are considering opening up farmland to the public for camping etc, ensure your safety risk assessment includes the risks associated with overhead power lines.
- Keep an eye out for children and visitors on your land.

Know your overhead power lines

- Find and note the routes and operating voltages of overhead power lines running across the land or near it's boundaries. SP Energy Networks will supply this information on request.
- Mark these routes and voltages on your farm map/plans.
- When planning work, use your map/plans as a reference.

Contact us... at SP Energy Networks

Visit our website www.spenergynetworks.com

We provide free information and advice on safe working practices and the precautions to take when working near overhead electric power lines.

Measure your machinery

- 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).
- 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.
- 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.
- It is not only equipment and machinery that presents a danger. A jet of water or slurry can cause discharge of electricity and a high risk of fatal or severe injury.

Inform and train people

- Include the emergency telephone number of SP Energy Networks on your farm map/site plans, in your list of telephone contacts and encourage workers to save it in their mobile phone.
- Make sure everyone who is working on your land/site is aware of the location and voltages of overhead power lines and safe working practices.
- Train staff, contractors and casual workers to be aware of the risks associated with overhead power lines. Ensure that they are familiar with the yellow and black '**Danger of Death**' notices which are normally fitted to poles or pylons. However, to ensure safety, all overhead lines supported on poles should be treated as electric power lines and therefore considered dangerous.
- Ensure staff, contractors and casual workers are trained to:
 - be aware of the risks associated with overhead power lines
 - use machinery and equipment safely
 - know their role and what to do in the event of an emergency