

Information Sheet

Angling Guidance

2016 Edition

Angling Guidance Document

1. Introduction

Electricity is a vital form of energy in today's high technology world. Distribution of this energy requires an extensive network of overhead electric power lines which cross all parts of the United Kingdom often via wooden poles and steel towers.

Electricity is also carried along overhead lines for specific uses such as transport systems, therefore similar principles to those below should be adopted for such apparatus.

This guidance covers angling in close proximity to overhead power lines within the United Kingdom. The guidance is for stakeholders involved in angling, land ownership and use, and the transmission/distribution of electricity.

The Problem

There have been a number of tragic accidents involving anglers when fishing near to overhead electric power lines. With the increasing development of carbon fibre fishing rods and poles, the risks of inadvertent contact with overhead electric power lines increased. The injuries sustained have either been fatal or permanently disabling.

This guidance covers the risks associated with electricity transmission and distribution networks only – similar risks occur when angling near to 'other' overhead electricity networks i.e. transportation networks for trains and trams. Where these risks exist there will be a requirement to contact the appropriate network owner for advice - although similar principles to this guidance should apply.

This guidance is appropriate for 'managed' and 'unmanaged' sites.

Electricity Companies have a legal duty to report angling incidents involving electricity networks to the HSE under the Electricity, Safety, Quality and Continuity Regulations 2002.

Findings from inspections suggest that there are considerably more minor incidents or 'near miss' incidents that are occurring that should but never get reported. Examples of the type of incidents that have been reported are:

- Whilst returning from fishing across fields to parked car, fishing rods came into contact with an overhead electric power line - sustained major injuries.
- Boy aged 13 made contact with 11,000 volt wood pole overhead electric power line with carbon fibre fishing rod. Suffered burns.
- Angler made contact with 33,000 volt overhead electric power line with 13 metre long carbon fibre pole from peg on side of lake - fatal injuries sustained.
- Fishing line became entangled with overhead electric power line -

Brief Facts

Every year cases are reported of angling equipment contacting overhead electric power lines. Some of these have resulted in horrific burn injuries, a number resulting in death. The main cause of these incidents is a lack of awareness on behalf of the angler.

line cut clear from rod - no injuries sustained.

In recent years the number of incidents has been reduced, mainly as a result of high profile campaigns supported by the electricity industry, angling groups, landowners and the tackle trade.

Not all incidents are, of course, the result of accidental contact. Children in particular are known to have deliberately contacted overhead electric power lines during 'horseplay'. In either case, the consequences can be horrific, with electrical burns causing extensive tissue damage resulting in amputations, permanent disablement and death. Even low voltages are sufficient to interfere with heart rhythms, which again may result in a fatality.

2. Key Facts

The following information has been prepared to reduce the risk to anglers from overhead electric power lines.

- Overhead electric power lines are most commonly supported on wood poles normally at a minimum height of 5.2 metres.
- Overhead electric power lines are often difficult to see, particularly at night and against a dark or very bright background.
- They are normally bare (not insulated) and can be mistaken for telephone wires, with disastrous consequences.
- Overhead electric power lines suspended on wood poles can carry between 230 & 132,000 volts, steel towers can carry up to 400,000 volts.
- Currently the higher voltage lines normally have yellow 'Danger of Death' warning notices fitted to the poles or towers but lower voltage lines may not be marked.
- At higher voltages electricity may jump short distances through the air. This means that you don't have to touch an overhead electric power line to suffer an electric shock and burns which could result in death.
- Fishing rods and poles made from carbon fibre and similar materials will conduct electricity. Many other materials will allow electricity to flow along them when they are wet.

Key Precautions

- It is not easy to estimate the height and distance of overhead electric power lines from the ground, consequently an adequate safe distance must be kept to avoid accidental contact.
- Anglers must not fish within the default exclusion distance of 30 metres of overhead electric power lines that cross or run parallel to the water unless the local angling club has carried out a suitable and sufficient risk assessment that has justified a variation of this distance (greater or smaller). This distance must be measured from the outer conductor at 90 degrees to the direction of the line.
- If you see fishing lines or other items of equipment hanging on overhead electric power lines do not try to free them. Inform the Local Electricity Company, land or water owner or relevant angling club official. They will arrange for its removal.

- If you own, lease, or make waters available for fishing where overhead electric power lines are present, you must ensure that anglers are made aware of the dangers. For example: by erecting suitable safety signs and where possible by providing written and/or verbal instructions on where to fish and where not to fish.
- If you're ever in any doubt, contact your Local Electricity Company.

Emergency Procedure

Although inadvertent contact of fishing equipment with overhead electric power lines is rare, it is important that when an incident does occur that the appropriate action is taken.

The following basic precautions should be taken:

- **ANY CONTACT WITH OVERHEAD POWERLINES AND ASSOCIATED EQUIPMENT CAN BE FATAL TO THE PERSON HOLDING THE FISHING EQUIPMENT AND THERE IS A SERIOUS RISK THAT ANY PERSON TRYING TO RESCUE, OR ATTEND TO, THE INJURED PERSON COULD ALSO RECEIVE A FATAL ELECTRIC SHOCK.**
- **DO NOT ATTEMPT TO MOVE THE FISHING EQUIPMENT OR PERSON IF STILL IN CONTACT WITH OR CLOSE TO THE OVERHEAD ELECTRIC POWER LINE**
- **PREVENT THIRD PARTIES FROM ENTERING THE INCIDENT AREA**
- **CONTACT THE EMERGENCY SERVICES THROUGH 999 (112 FOR MOBILE) AND REQUEST AN AMBULANCE AND THE LOCAL ELECTRICITY COMPANY**
- **MAINTAIN A 5 METRE CLEARANCE.**

In case of an emergency contact and inform your Distribution Network Operator/ Transmission Network Operator

Customers can also call 105 if they spot damage to electricity power lines and substations that could put anyone in danger. If there's a serious immediate risk call 105 and also call the emergency services.



3. Existing Angling sites

Guidance to Owners and Managers of Angling Sites, Local Authorities, Angling Clubs, Angling Licensees, Anglers, Water Owners and Internal Drainage boards.

Management of risks associated with angling in close proximity to overhead electric power lines relies on water owners and managers having awareness of these risks.

This section of the guidance has been prepared to assist land/water owners, angling clubs and others who own or operate fisheries, to manage the risks.

The information below will assist those assessing the risks and deciding on what controls are required adjacent to overhead electric power lines.

This section should be read in conjunction with separate guidance: A Guide to Risk Assessment supporting a reduction in the default 30 metre angling exclusion zone.

Legal obligations on owners of angling sites

The legal responsibility for taking reasonable steps to prevent harm to visitors is widely recognised.

The main pieces of legislation controlling owner's responsibilities are:

- Section 3 - Health and Safety at Work Act 1974
- Occupier's Liability Act 1957

Although the legal responsibility (Health & Safety at Work Act and the Electricity, Safety, Quality and Continuity Regulations) for overhead electric power lines rest with the owner of the apparatus, section three of the Health & Safety at Work Act places a duty on businesses to conduct their undertakings in such a way as to ensure the safety of visitors to the site so far as is reasonably practicable. Furthermore the Occupiers Liability Act 1957 places a duty of care on owners and operators to take reasonable steps to see that those visiting their site are reasonably safe. Consequently it is their responsibility to take reasonable steps to manage the risks associated with angling adjacent to overhead electric power lines that cross or run parallel to their waters.

Where angling takes place on waters affected by overhead electric power lines those operating the facility owe a duty of care to those participating. All water owners and managers should be aware of the risks and management controls that should be in place to minimise those risks.

What can I do to manage the Risk?

A simple system has been developed within this guidance to allow owners, fishery managers and angling clubs to assess the risks from overhead electric power lines.

Refer to the separate Risk Assessment guidance for further information, but remember:

- The risk assessment should be carried out as a group process.
- The assessment should be carried out on site.
- Those contributing should have appropriate skills and local knowledge.
- Seek guidance from the local electricity company.

Controlling the Risk

Historically the recommended minimum default exclusion distance from overhead electric power lines affecting a fishery is 30 metres, however modern legislation has moved away from fixed rules and has been replaced by site specific risk assessment which could reduce or increase this clearance to allow fishing. The default distance of 30 metres should be observed in all circumstances where rods, poles or fishing lines could contact overhead electric power lines that cross or run parallel to the water – unless a risk assessment determines a change.

Management controls can be as simple as signs at entry points, car parks and adjacent to overhead electric power lines to denote no fishing areas or as extensive as re-directing lines away from the water.

In many cases signage will be the most cost-effective option; it may however not be practical to rely on signage alone. At some locations a mix of signage and verbal instruction from the site owner, manager or bailiff should minimise the risk to those using the facility.

Where extensions to existing fisheries are planned:
– refer to Section 3 New/ Proposed Fisheries of this Guidance document.

Warning and exclusion signage can be obtained from local Electricity Companies at no cost. Post mounted signage installation must not be carried out before checks are made for buried services e.g. gas, electricity, oil, water, sewers, drains, telecommunications and with the owner for work on canals and reservoirs or flood embankments. After installation, signage should be routinely checked, defects made good and records maintained by the person responsible for the site.

Under the Electricity, Safety, Quality and Continuity Regulations, local Electricity Companies will also inspect the overhead electric power lines, including the danger of death warning signage.



'Fish Safe' campaign – remind children of the basics – page 13.

How do I recognise the Hazard?

Overhead electric power lines are normally bare (not insulated) and can carry 230 to 400,000 volts. Overhead electric power lines are commonly mounted on wooden poles or metal towers. It is not possible to provide guidance on how to tell electricity lines from telephone wires as both can be supported on wooden poles and look the same to the untrained eye.

At the higher voltages, electricity can jump short distances through the air, this means that it may not be necessary to touch an overhead electric power line with a fishing rod or pole to suffer an electric shock and severe burns that could lead to death.

Consequently we recommend owners treat all 'overhead lines' as electrically live conductors to minimise the risk of an incident.

If there are overhead electric power lines crossing your land but you are unsure whether they may affect your water, contact your local electricity company. They have staff trained to assist you and will provide advice free of charge.

4. New and Proposed Angling Sites

Guidance to Planning Authorities, Landowners and Developers

This guidance has been prepared to provide information to Landowners intending to establish new or extensions to existing fisheries and to Planning Authorities considering applications for new commercial fisheries. By providing clear guidance the Angling and Overhead Power Line Working Group believes that the welcome trend of reduced accident numbers can be maintained.

Legal Obligations

There are a host of significant legal responsibilities that apply to both the Electricity Companies that own overhead electric power lines and the landowners intending to develop a commercial angling site.

Electricity Companies must ensure that their overhead electric power lines meet certain minimum height requirements that in most circumstances they are marked with appropriate ‘danger’ notices, and that precautions are taken to prevent structures being climbed.

Owners of angling sites are covered by the terms of the Health and Safety at Work Act. This requires them to consider the safety of not only their own employees, but also members of the general public and to conduct their undertakings in such a way as to ensure the safety of visitors to the site so far as is reasonably practicable. In most circumstances they will be subject to the regulatory powers of Local Authority inspectors. Landowners are also subject to the Occupiers Liability Acts which require that reasonable steps are taken to see that visitors to their land are reasonably safe. A similar duty of care can be owed to non-visitors (e.g. persons gaining access/use without permission) where the occupier is aware or has reasonable grounds to believe that the entrant is getting into the vicinity of a hazard.

Planning Authorities considering ‘change of land use’ applications must consider the safety implications of new angling sites in addition to the more usual environmental concerns considered under the Town and Country Planning Act.

Designing the Angling Site

A range of incidents associated with angling and overhead electric power lines have been detailed in previous sections within this guidance. Most result from accidental direct contact with overhead electric power lines when using carbon fibre rods and poles. However, incidents have also occurred with other types of equipment, with fishing gear coming into close proximity with overhead electric power lines causing ‘flashovers’ and from individuals trying to retrieve fishing gear caught in overhead electric power lines.

Ideally, fishing waters should be designed to be at least the default minimum distance of 30 metres from overhead electric power lines or are separated from the overhead electric power lines by a substantial barrier such as a building.

Landowners should also carefully consider access to the site. Car parks and pathways in proximity to overhead electric power lines should also be avoided wherever possible as anglers may assemble equipment and carry tackle to the fishing waters.

In circumstances where it is not possible to avoid infringing the default ‘30 metre rule’, landowners should consult with their local Electricity Company at the earliest possible opportunity about possibility of diverting the overhead power lines or using other safety measures such as barriers, ‘goal posts’ and safety signs.

When planning an angling site it is also useful to consider the people that it is likely to attract. Juveniles and individuals not affiliated to particular angling clubs may pay less heed to the safety requirements of the site than adults and club members. Control of the site is therefore an important planning consideration.

There are statutory requirements under the Electricity, Safety, Quality and Continuity Regulations for Electricity Companies to be consulted regarding developments taking place in proximity to existing overhead electric power lines, Planning Authorities may wish to consider the safety implications of new angling sites that do not adhere to the default '30 metre rule'. In particular, good practice would require such sites to prepare a suitable risk assessment outlining remedial measures with the application (see separate guidance A Guide to Risk Assessment supporting a reduction in the default 30 metre angling exclusion zone).

Advice and Information

Whenever Landowners or Developers have any doubts about the development of new angling sites they should contact their local Electricity Company as soon as possible. They will be able to provide useful advice on many of the matters outlined above. Further advice can be obtained from the organisations associated with this guidance.

Moving the Lines

In certain circumstances it may be possible for Electricity Companies to divert overhead power lines that will be affected by the development of a new fishery. The ease with which a change can be made will depend upon the voltage of the equipment concerned and the number of customers that it serves. Generally, the higher the voltage (e.g. lines carried on steel towers) the more expensive and time consuming it will be to divert the line.

Whenever diversion is considered as part of the Landowner's development plans they should contact the Electricity Company concerned at the earliest possible opportunity. Early consultation is essential. This is particularly important in cases where diversion of high voltage overhead electric power lines may require planning permission.

Risk Assessment Sample

| | | | |
|---|----------------|----------------------------|-------------------|
| Fishery Affected by Overhead Power Line: | | Date of Assessment: | DD/MM/YEAR |
| Assessment Recorded by: | A. NAME | Next Assessment: | DD/MM/YEAR |

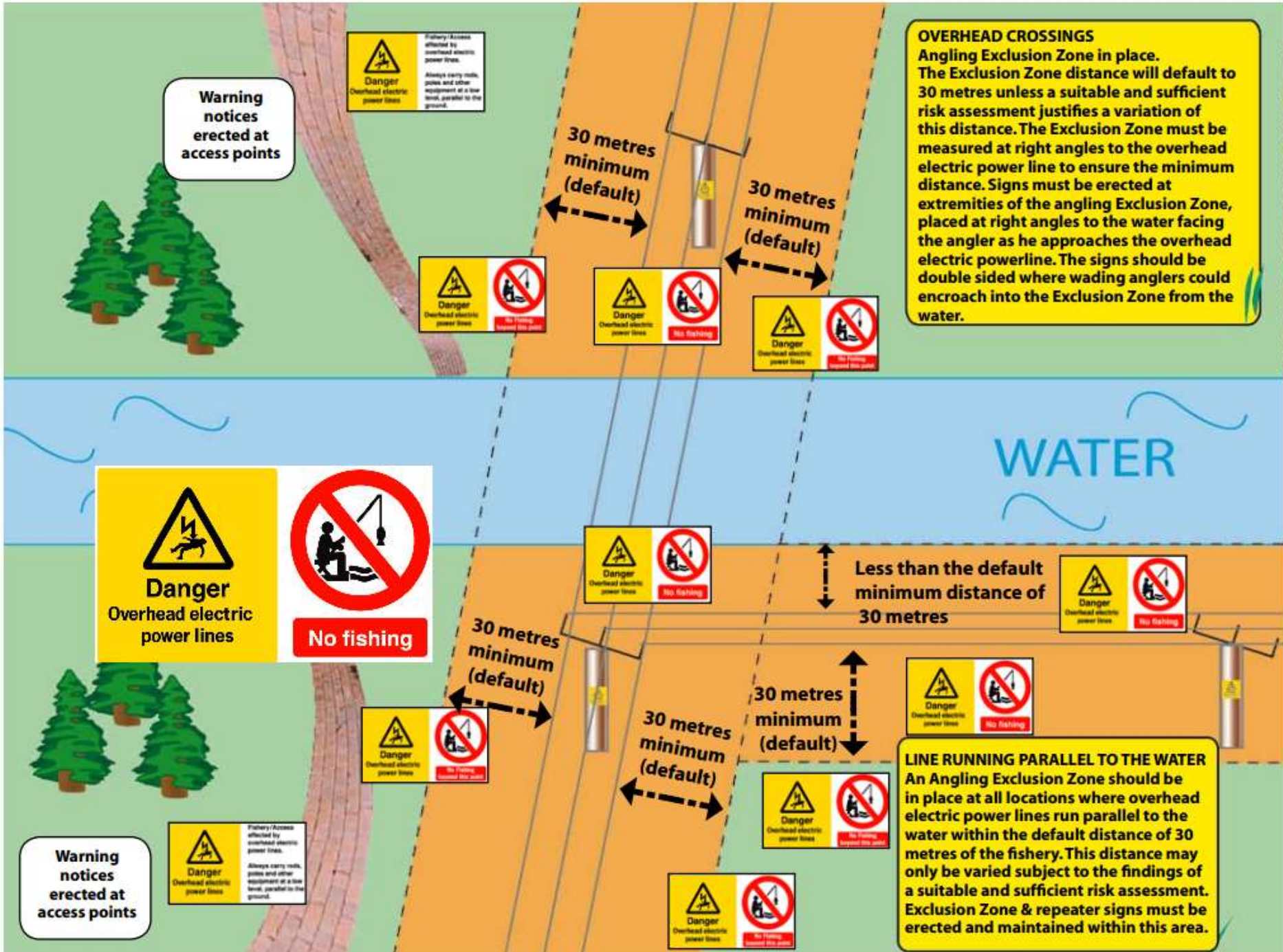
| Location | Nature of the Hazard | Possible Accident | Existing Control Measure/s in Place | Risk Level | Urgent Actions Required | Additional Control Measures | Residual Risk Level |
|---|--|--|---|-------------------|---|---|----------------------------|
| Hogthorpe – Peg nearest footbridge | 11kV Overhead line 15m at rear of peg | Movement of extended roach pole could touch wires during fishing or whilst walking on footpath away from river under wires | Warning sign at entrance to footpath by roadside | High | Remove fishing peg and fit 'no fishing' sign | Promote river weed growth at the peg site and also allow bramble / shrub growth at bank side to prevent access (note - peg cannot be reinstated unless overhead electric power line is removed - contact electricity co. to discuss feasibility cost and timescales) | Low |
| Hogthorpe peg adjacent to old hut. | 11,000V overhead electric power line 34m at rear of peg | Possibility that vertically carried extended roach pole could touch wires whilst walking from peg to roadside following footpath under overhead electric power lines - unlikely though as tree growth would make this difficult | None | Med | Fit 'danger look out - look up' signs at the footpath on each side of approach to the overhead electric power lines. | Consider installation a height restriction barrier to prevent poles being carried upright along the path. | Low |

Risk Assessment Sample

| | | | |
|---|----------------|----------------------------|-------------------|
| Fishery Affected by Overhead Power Line: | | Date of Assessment: | DD/MM/YEAR |
| Assessment Recorded by: | A. NAME | Next Assessment: | DD/MM/YEAR |

| Location | Urgent Actions From Risk Assessment | Additional Control Measures From Risk Assessment | Who is Responsible For Ensuring Action is Complete | Date Agreed for Completion | Review/ Comments | Date Action is Confirmed Complete | Residual Risk Level |
|---|--|--|---|-----------------------------------|---|--|----------------------------|
| Hogthorpe peg34 nearest to foot bridge. | Remove fishing peg and fit 'no fishing' signs | None | John Smith (Hogthorpe fishing club) | DD/MM/YEAR | Sign obtained from electricity co. and erected by us at positions agreed with land owner. | DD/MM/YEAR | Low |
| Hogthorpe peg34 nearest to foot bridge. | None | Promote river weed growth at the peg site and also allow bramble / shrub growth at bank side to prevent access | Fred Bloggs | DD/MM/YEAR | Access is obstructed by cut brush - Bramble and weed growth now established. | DD/MM/YEAR | Low |
| Hogthorpe peg33 adjacent to old hut. | Fit 'danger look out - look up' signs at the footpath on each side of approach to the overhead electric power lines. | Install a height restriction barrier to prevent poles being carried upright along the path. | Bill Jones (Hogthorpe fishing club) | DD/MM/YEAR | Signs obtained from electricity co. and erected by us positions agreed with land owner. | DD/MM/YEAR | Low |
| Hogthorpe peg33 adjacent to old hut. | None | Install a height restriction barrier to prevent poles being carried upright along the path. | Tom Brown (land owner) | DD/MM/YEAR | Barrier erected across main access path with integral warning signs 18m each side of where overhead electric power line crosses the path. | DD/MM/YEAR | |

APPLICATION OF EXCLUSION ZONE



Warning notices erected at access points

Danger
Overhead electric power lines

Fishery Access affected by overhead electric power lines.
Always carry rods, poles and other equipment at a low level, parallel to the ground.

OVERHEAD CROSSINGS
Angling Exclusion Zone in place. The Exclusion Zone distance will default to 30 metres unless a suitable and sufficient risk assessment justifies a variation of this distance. The Exclusion Zone must be measured at right angles to the overhead electric power line to ensure the minimum distance. Signs must be erected at extremities of the angling Exclusion Zone, placed at right angles to the water facing the angler as he approaches the overhead electric powerline. The signs should be double sided where wading anglers could encroach into the Exclusion Zone from the water.

Danger
Overhead electric power lines

No fishing

LINE RUNNING PARALLEL TO THE WATER
An Angling Exclusion Zone should be in place at all locations where overhead electric power lines run parallel to the water within the default distance of 30 metres of the fishery. This distance may only be varied subject to the findings of a suitable and sufficient risk assessment. Exclusion Zone & repeater signs must be erected and maintained within this area.

Warning notices erected at access points

Danger
Overhead electric power lines

Fishery Access affected by overhead electric power lines.
Always carry rods, poles and other equipment at a low level, parallel to the ground.

WATER

Less than the default minimum distance of 30 metres

30 metres minimum (default)

30 metres minimum (default)

30 metres minimum (default)

Danger
Overhead electric power lines

No fishing

Danger
Overhead electric power lines

No fishing

Danger
Overhead electric power lines

No fishing

Danger
Overhead electric power lines

No fishing

Danger
Overhead electric power lines

No fishing

Danger
Overhead electric power lines

No fishing

Danger
Overhead electric power lines

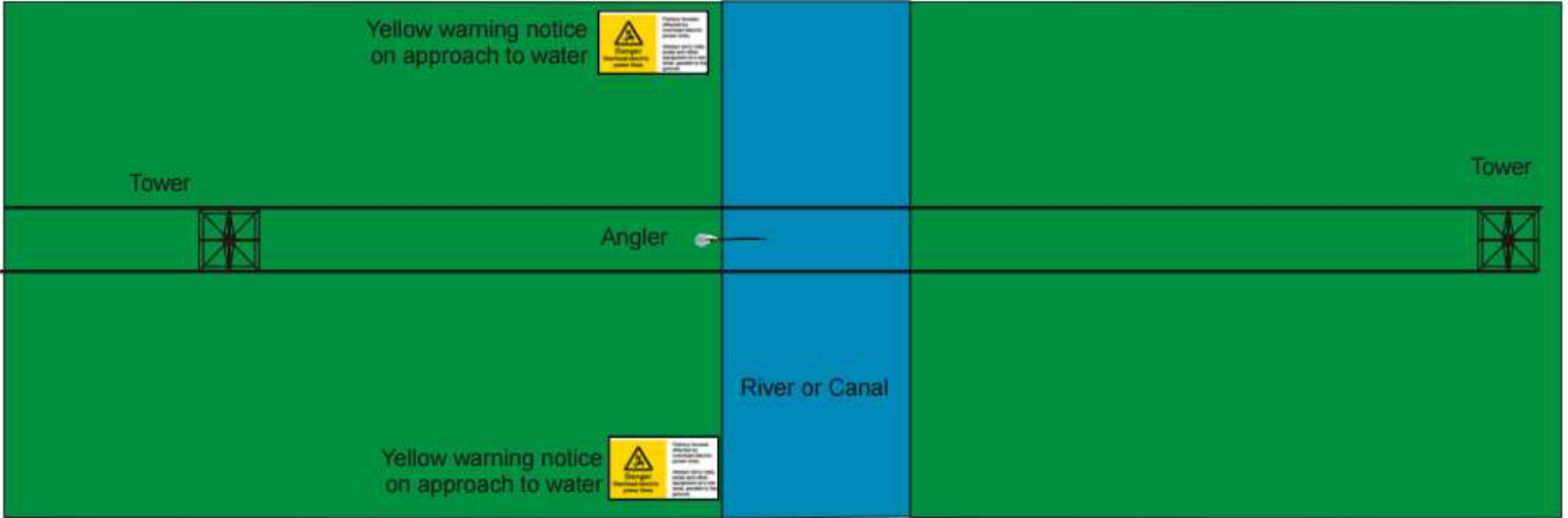
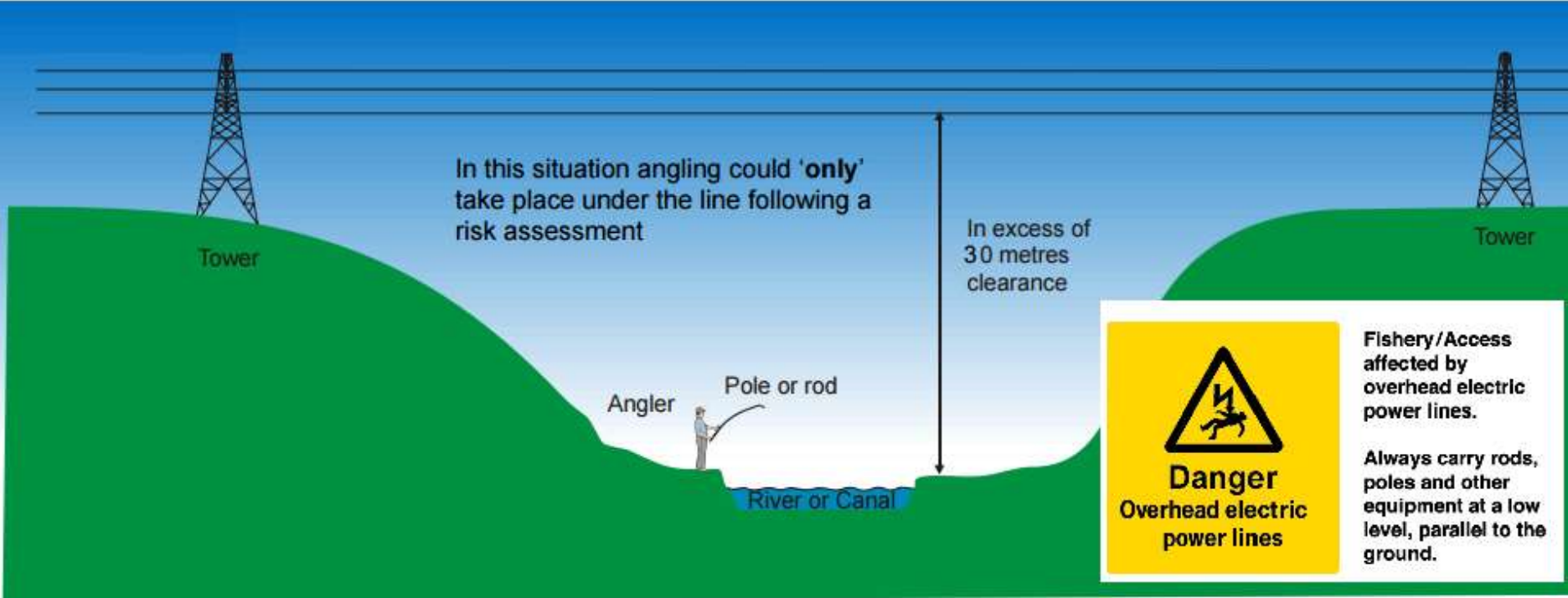
No fishing

Danger
Overhead electric power lines

No fishing

Danger
Overhead electric power lines

No fishing



Annex A – Fish Safe Campaign

The Voice of the Networks

enda
energynetworks
association

FISH SAFE!

Don't use your rods or poles within 30 metres of overhead powerlines - it could be **FATAL!!!**
LOOK OUT! LOOK UP!



www.energynetworks.org

Annex B - WARNING & PROHIBITION SIGNAGE SPECIFICATION

Overhead Electric Power Line Warning Signs

How and where warning signs should be used

These are the three types of warning sign:-

Warning Notices

Warning notices should be used at access points to provide a general warning of the presence of overhead electric power lines on approaches to the fishery and/or affecting the fishery itself.

Exclusion Zones

Exclusion Zone Signs should be used at the extremities of the angling exclusion zone. This type of sign is designed to warn anglers as they approach the overhead electric power lines and should be erected in a prominent position, at right angles to the water, to face the anglers as they approach the exclusion zone.

Prohibition Notices

At some locations overhead electric power lines may run parallel to the water for long distances, where this occurs it is recommended that 'repeater signs' are erected at frequent intervals in line of sight but not exceeding 200 metres. These signs can also be used as a reminder sign directly below the overhead crossing. *Note: This type of sign should be used in addition to the Angling Exclusion Zone signs.*



SIZE:
170x170
Colours:
: Black
onto
Yellow

R Lowercase
letter: 9mm
Readable
distance: 18M



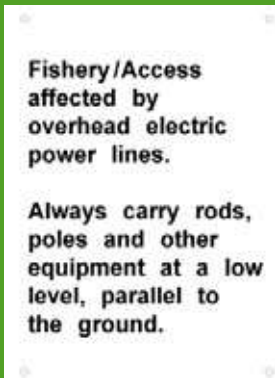
SIZE:
170x170
Colours:
: Black
onto
Yellow

R Lowercase
letter: 9mm
Readable
distance: 18M



SIZE:
170x170
Colours:
: Black
onto
Yellow

R Lowercase
letter: 9mm
Readable
distance: 18M



SIZE:
170x230
Colours:
Black
onto
White

Lowercase
letter:
9mm
Readable
distance:
18M



SIZE:
170x230
Colours: Red
(RAL
3020) and
Black onto
White

Lowercase
letter: 9mm
Readable
distance:
18M



SIZE:
170x230
Colours: Red
(RAL
3020) and
Black onto
White

Lowercase
letter: 9mm
Readable
distance:
18M

At high risk locations individual tiles with the wording "Always carry rods, poles and other equipment at a low level, parallel to the ground" can also be incorporated alongside the Exclusion Zone signs and/or the Repeater/Under Line Signs.

Specification Note: Due to the effects of weathering, notably the fading of the printed message caused by the sun's UV rays it is advisable to check with your sign supplier the life expectancy of the signs. Sign life can be increased by over laminating the panel with a clear UV inhibiting film.

The Exclusion zone & under line signs are supplied as units for use in a vertical format as displayed above, or side by side on one sign panel as shown below. This allows those purchasing the signs to decide on the most suitable layout/design style for the location to be signed.



Fishery/Access affected by overhead electric power lines.
Always carry rods, poles and other equipment at a low level, parallel to the ground.

SIZE: 360mm x 230mm



SIZE: 360mm x 230mm



SIZE: 360mm x 230mm