

Safety, Health and Environment Angler Safety

A Guide to Risk Assessment
Supporting a Reduction in the
Default 30 metre Angling
Exclusion Zone

This guidance document has been prepared by members of the Energy Networks Association Public Safety Committee “Angling and Overhead Power Lines Working Group”.

This Group comprises representatives of licensed electricity transmission and distribution companies, angling organisations, water owners/managers, and The Royal Society for the Prevention of Accidents (RoSPA).

The Group focuses on ensuring and promoting the safety of anglers whilst endeavouring not to excessively restrict access to angling waters.

Contents

Introduction	02
Reminder	02
Reducing the 30 Metre Default Angling Exclusion Zone	03
Preparing to Undertake a Risk Assessment	03
Risk Assessment Site Meeting	04
After the Site Meeting	05
Review	05
Appendix A – Table to Calculate Horizontal Separation Distance	06
Appendix B – Drawings Showing Different Forms of Barrier	08
Appendix C – Examples of Rod Length Restriction Sign	10
Appendix D – How Signage Could Be Positioned to Complement the Risk Assessment Approach	10

Introduction

This document has been written to support the process of risk assessment, detailed in the ENA Angler Safety document “Managing Risks Associated with Angling in Close Proximity to Overhead Electric Power Lines”, carried out by land owners/ users, and which permits the use of site specific risk assessments to reduce the historical default exclusion distance of 30 metres from overhead electric power lines. It is not intended to be, and should not be used as, a free standing document.

Using the information in this document should enable consistent risk assessments by the various parties involved, as well as helping towards achieving a common approach across different areas of the country.

Reminder

An overhead electric power line (OHPL) has the potential to kill or seriously injure an angler through direct or indirect contact with a conductor. Injuries will be significant and life changing.

The development of longer poles and rods that are made of conductive materials, such as carbon fibre, has increased the risk of accidental contact with OHPL conductors.

Keeping anglers safe from harm is the responsibility of all those involved with the management and use of the fishing location, particularly where the anglers may be young or inexperienced.

Regardless of all steps taken to keep anglers safe from harm by those managing the fishing location, the anglers themselves hold the ultimate responsibility and should comply with any measures put into place to ensure their safety.

Reducing the 30 Metre Default Angling Exclusion Zone

Reducing the 30 metre default angling exclusion zone can be achieved by the application of risk assessment techniques that take into account the following:

- > The physical location of the OHPL
- > The separation distance between the OHPL and the point at which the angler stands
- > The nature of the angling equipment and techniques likely to be used
- > The ability of the landowner or angling society to effectively control and monitor the application of any safety requirements
- > Safe angling can be achieved either by compliance with the 30 metre default exclusion zone principle, or introducing other control measures that are capable of achieving a similar level of angler safety

Only when effective alternative control measures can be applied should reduction of the 30 metre exclusion zone be considered.

Preparing to Undertake a Risk Assessment

Some basic preparation is necessary by the organisation and person carrying out the risk assessment to ensure that a suitable and sufficient risk assessment is achieved with the minimum of effort:

a. Identify the owner of the OHPL and obtain a copy of their plans;

b. Contact the key people who need to be involved in undertaking the risk assessment, such as:

- > Site owner/operator
- > Fishery operator
- > Representative of angling club/society
- > Representative of the overhead line owner

c. Identify the types of equipment and angling methods used;

d. Identify the probable experience and knowledge of the anglers likely to use the water;

e. Identify how the risk from the OHPL is currently managed at the site;

f. Arrange a meeting on site of the people identified above who will form the risk assessment group. [Keep the group small enough to be able to reach consensus/ agreement, but large enough to provide the relevant knowledge to ensure a valid assessment];

g. Agree before the meeting who is to lead the risk assessment and make a record of the discussions on site, and the agreed arrangements.

Risk Assessment Site Meeting

- a. The owner of the OHPL will be able to provide the minimum ground clearance of the conductors. [This may be by the use of a measuring device or by reference to design records].
- b. Using this information and taking into account any difference in ground level between the proposed angler location and the ground under the OHPL, it is possible to determine the maximum length of rod/pole that can be used whilst maintaining a 7 metre safety separation to the OHPL conductor.
- c. The risk assessment should result in a formal proposal which details:
 - > The minimum safety distance (measured horizontally at ground level between angler position and OHPL);
 - > Limitations on fishing equipment that may be used;
 - > Signage to be provided; and
 - > How the limitations are to be managed and controlled/enforced.

- Factors to Consider
 - > Physical barriers.
 - > Roads, substantial stands of trees, substantial hedges and fences, or buildings may form impenetrable obstacles between the angling position and an OHPL.
 - > Ground levels (topology) of the site.
 - > Changes in site conditions, such as differences in water levels and other seasonal variances, leading to the angling position changing significantly from that at the time of assessment.
 - > Visibility of OHPL conductors (and any warning signs) in different light conditions.
 - > Other users of the site/waterfront and how their activities might affect the actions of anglers, leading them to inadvertently placing rods/poles close to an OHPL conductor. [For example to avoid passing boats].
 - > Location of parking and access points to the fishery – overhead lines that cross car parks and footpaths need to be considered as well as the angling site.
 - > Types of equipment, maximum lengths and angling methods used at the site. Angling techniques involving casting or the use of lead cored lines may require larger separation distances than that provided only by consideration of the rod length.

- > The degree of access control or supervision of the site/waterfront and the likelihood of unauthorised use by members of the general public. The frequency of visits by bailiffs or angling club committee members is relevant and are important to monitor use of the fishery.

- Possible Controls
 - > Where restrictions are necessary on the maximum length of fishing rod/pole or angling techniques that may be used, then these requirements should be made clear to those anglers who might fish at that location.
 - > Inclusion of the requirements in Club Membership documentation and on the reverse of Day tickets, for example.
 - > Erection of clear signage that indicates the maximum rod/pole length.
 - > Modification to the location of existing angling prohibition signs is likely to be necessary.

- Important Points
 - > Never attempt to directly measure the height above ground of an OHPL– contact the line owner (usually the local electricity distribution company).
 - > Only measure lateral separation distances horizontally at ground level – never attempt to measure directly from the OHPL conductor.
 - > Make sure that any requirements or arrangements are effectively communicated to anglers using the water. This communication should be in addition to the installation of signs, such as inclusion of requirements on membership cards or tickets.

If there is any doubt about effectively controlling/monitoring the angling activity on the site, then retain the 30 metre exclusion zone.

After the Site Meeting

- a. Write down the risk assessment and make a formal record of any meeting notes. Mark the location of any existing signs together with any new ones required on a plan/map.
- b. Send a copy of the risk assessment and plan/map, together with any meeting notes, to the other members of the risk assessment group for them to agree.
- c. Identify and record any actions that are required to make the change possible. Allocate actions to individuals and agree the date by which they will have been completed. Send a copy of the agreed action plan to the other members of the risk

assessment group, and to other people responsible for delivering actions (if not members of the assessment group). The line owner should retain details of the information agreed following the site meeting.

d. Confirm that all actions are completed, and that completion dates are formally recorded on the action plan, before implementing any reduction of a 30 metre angling exclusion zone.

Review

The risk assessment should be subject to a periodic review at least every 5 years.

A review of the risk assessment should be carried out earlier if there is a significant change to the layout or use of the site or if there is evidence that:

- > Anglers are consistently not complying with restrictions.
- > There are any reported or observed near miss incidents due to an unforeseen event, or sequence of events, that were not foreseen when the original risk assessment was completed.
- > There have been variations due to changes in water or ground levels that were not considered in the original assessment (e.g. bank re-profiling associated with flood prevention works).
- > There have been changes to the OHPL that might affect the minimum ground clearance or its position relative to the fishery.
- > There are changes to angling equipment and/or techniques.
- > There has been a change to supervision/management of the water.

Appendix A

Table to Calculate Horizontal Separation Distance

Key to the alternative approach is establishing the type of tackle that can be used, the method of fishing, the maximum length of that rod/pole, and the position on the ground which achieves the minimum clearance from the line conductor.

When considering a reduction of the 30 metre exclusion zone a minimum clearance of 7 metres is to be achieved between a line conductor and the end of the rod/pole.

The table below provides the horizontal separation distances necessary from the overhead electric power line conductor for various conductor heights and length of fishing equipment.

OHLP Conductor Height agl (metres)	Horizontal Separation Distance at Ground Level Between Outer Line Conductor and Angler Position (metres) agl = above ground level																
26	0																
25	7	0															
24	10	7	0														
23	12	10	7	0													
22	14	12	10	7	0												
21	15	14	12	10	7	0											
20	17	15	13	12	9	7	0										
19	18	16	15	13	11	9	7	0									
18	19	17	16	14	13	11	9	6	0								
17	20	18	17	16	14	12	11	9	6	0							
16	20	19	18	17	15	14	12	10	8	6	0						
15	21	20	19	17	16	15	13	12	10	8	6	0					
14	22	21	19	18	17	16	14	13	11	10	8	6	0				
13	22	21	20	19	18	16	15	14	13	11	9	8	5	0			
12	23	22	21	20	18	17	16	15	13	12	11	9	7	5	0		
11	23	22	21	20	19	18	17	15	14	13	12	10	9	7	5	0	
10	24	23	22	21	19	18	17	16	15	14	12	11	10	8	7	5	
9	24	23	22	21	20	19	18	17	15	14	13	12	11	9	8	6	
8	24	23	22	21	20	19	18	17	16	15	14	13	11	10	9	8	
7	25	24	23	22	21	20	19	17	16	15	14	13	12	11	10	8	
6	25	24	23	22	21	20	19	18	17	16	15	14	12	11	10	9	
5.2	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	
18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3																	
Maximum Rod Length (metres)																	

Notes:
a. If there is a difference in relative height between the ground at the position of the angler and the ground under the overhead power line where the clearance is measured, then the measured clearances need to be corrected.

If the angler ground position is higher than the ground at the overhead power line, the clearance needs to be reduced by the difference in relative heights.

If the angler ground position is lower than the ground at the overhead power line, the clearance needs to be increased by the difference in relative heights;

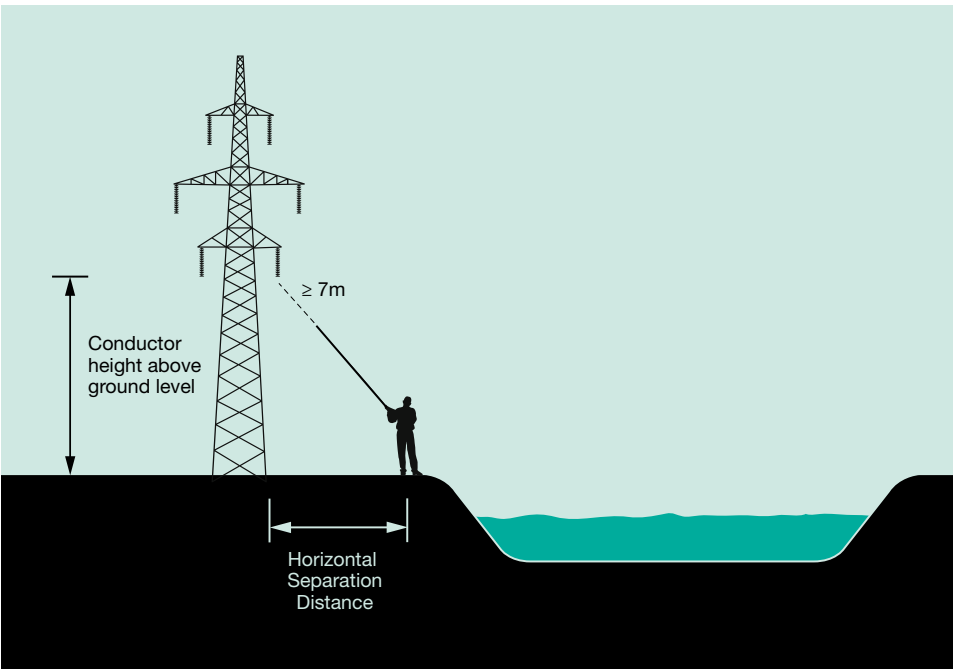
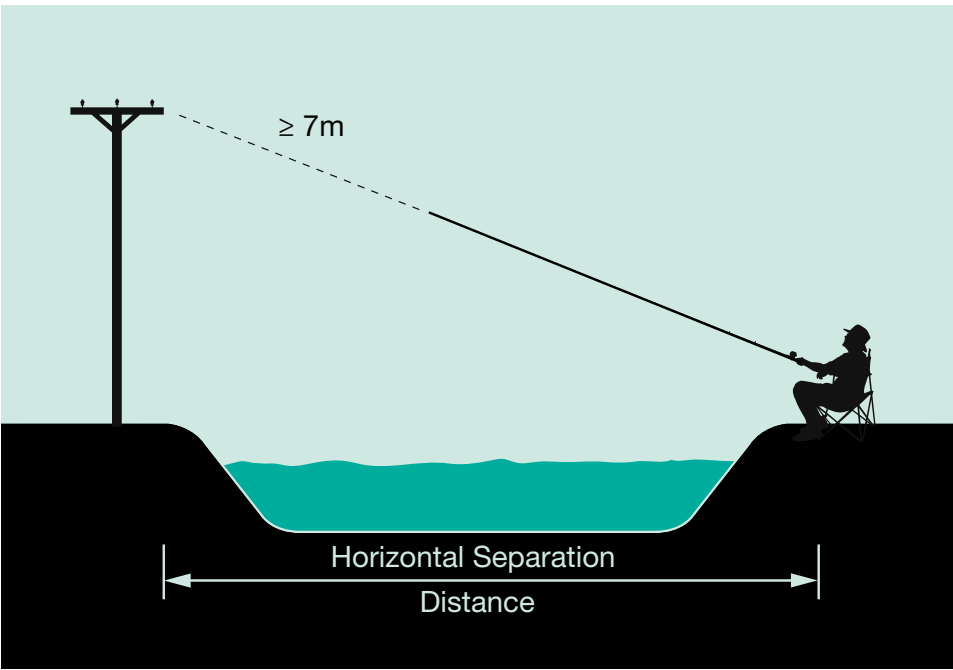
b. Calculations based on height above ground level of rod/pole butt-end of 1 metre;

c. Rod lengths above 18 metres are not considered likely;

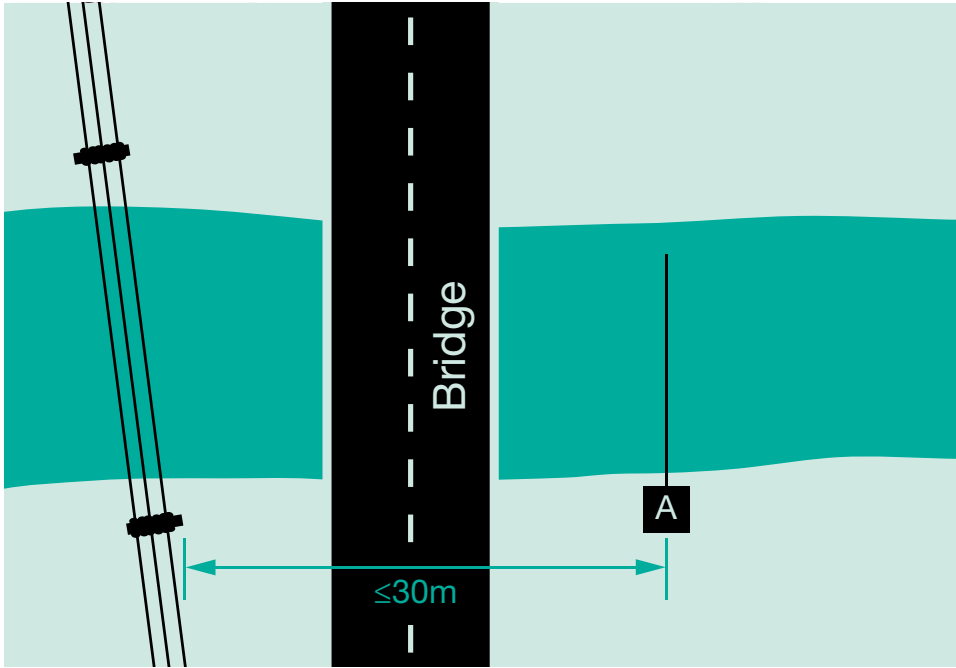
d. For line heights at or just above statutory minimum clearance, then maximum rod length + 7 metres measured horizontally at ground level will give a good approximation to the separation distance;

e. Whilst calculated values have been rounded up to the next whole metre this makes a minimal difference to the situation on site as physical horizontal measurement on site is unlikely to be exact;

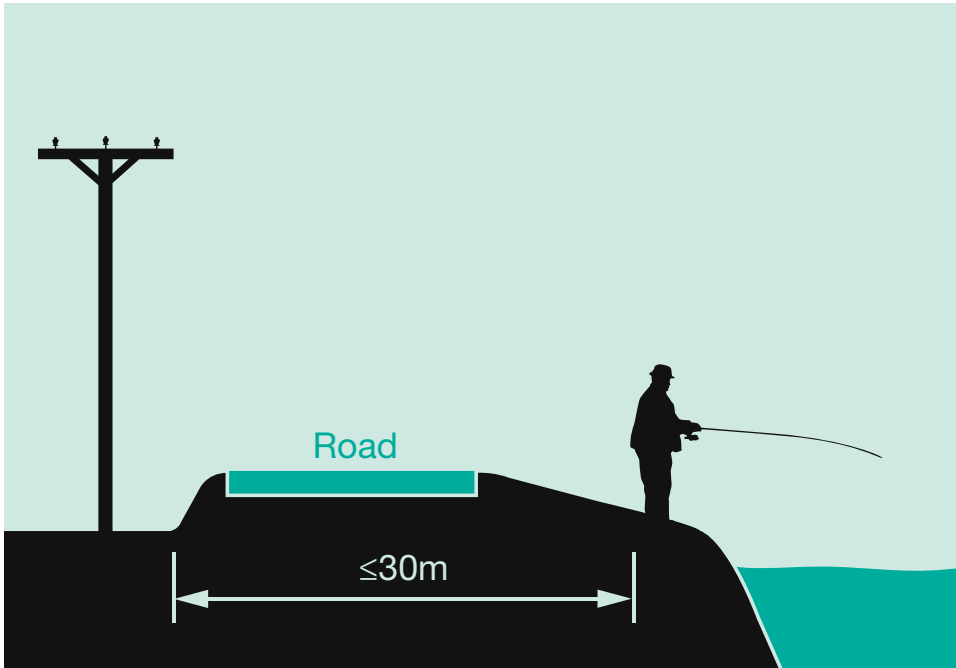
f. Sufficient margin has been allowed in the 7 metres clearance so as not to require any additional distance to be added “just to be on the safe side”.



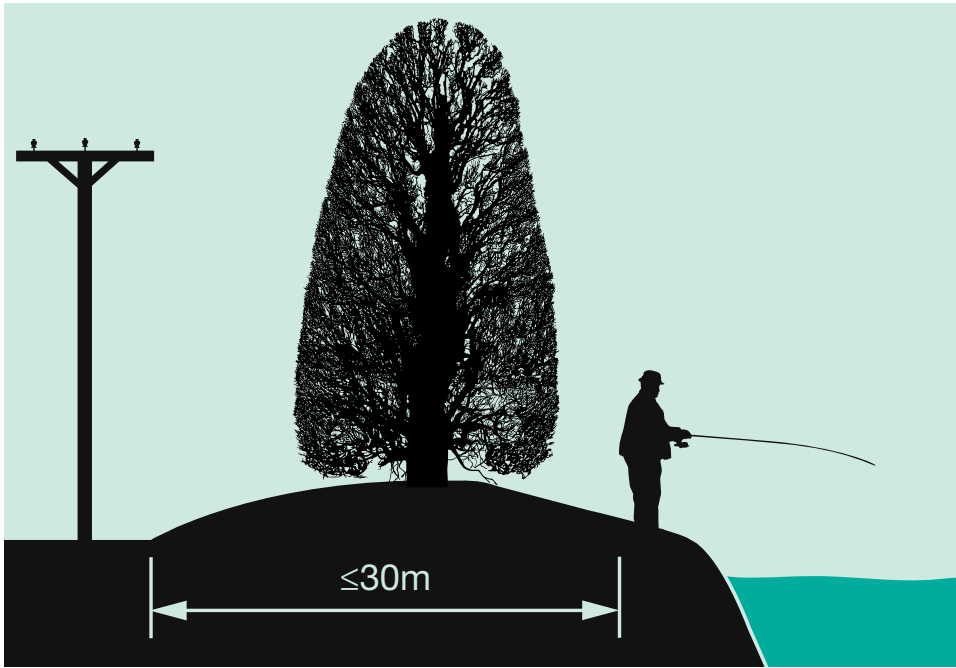
Appendix B
Drawings
Showing
Different Forms
of Barrier



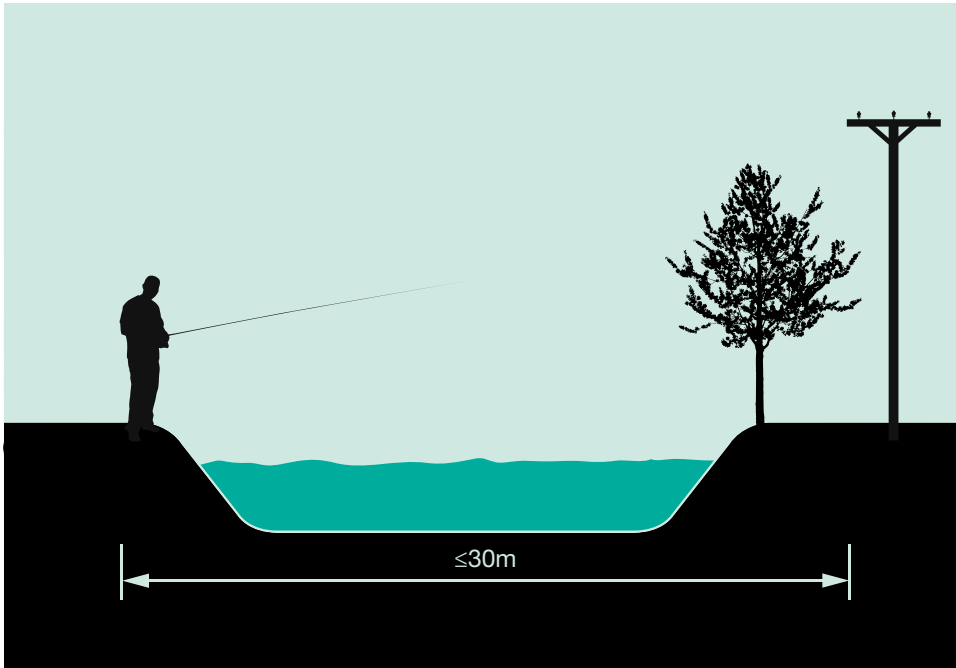
i. Bridge forming a substantive barrier between the angling position and the overhead power line.
Other structures, such as buildings or pump houses, may also act to form a substantive barrier.



ii. Road forming a barrier between the angling position and the overhead power line.
Road should be a frequented public highway and not a farm track or infrequently used drive.

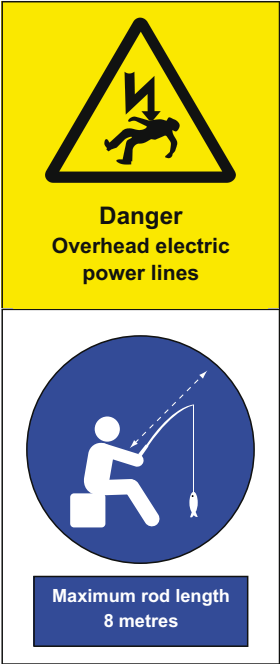


iii. Line of substantial trees forming a barrier and the angling position.
Trees should be sufficiently mature and form a continuous barrier so as to physically prevent any rod/pole making contact with the overhead power line.

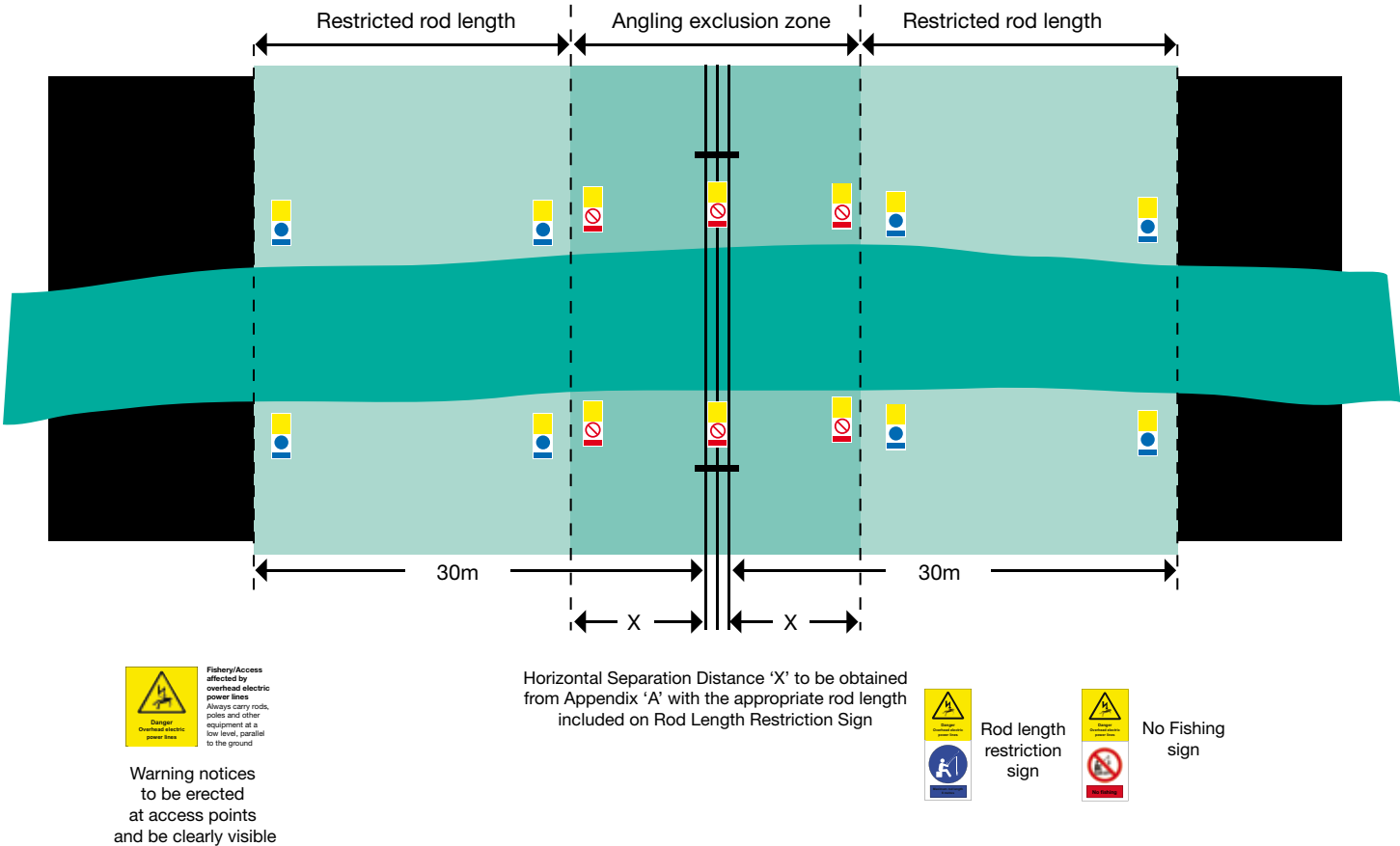


iv. Hedge forming a barrier between the angling equipment and the overhead power line.
This situation is only suitable for the situation where the overhead power line is located on the opposite side of the water being fished to the angling position.

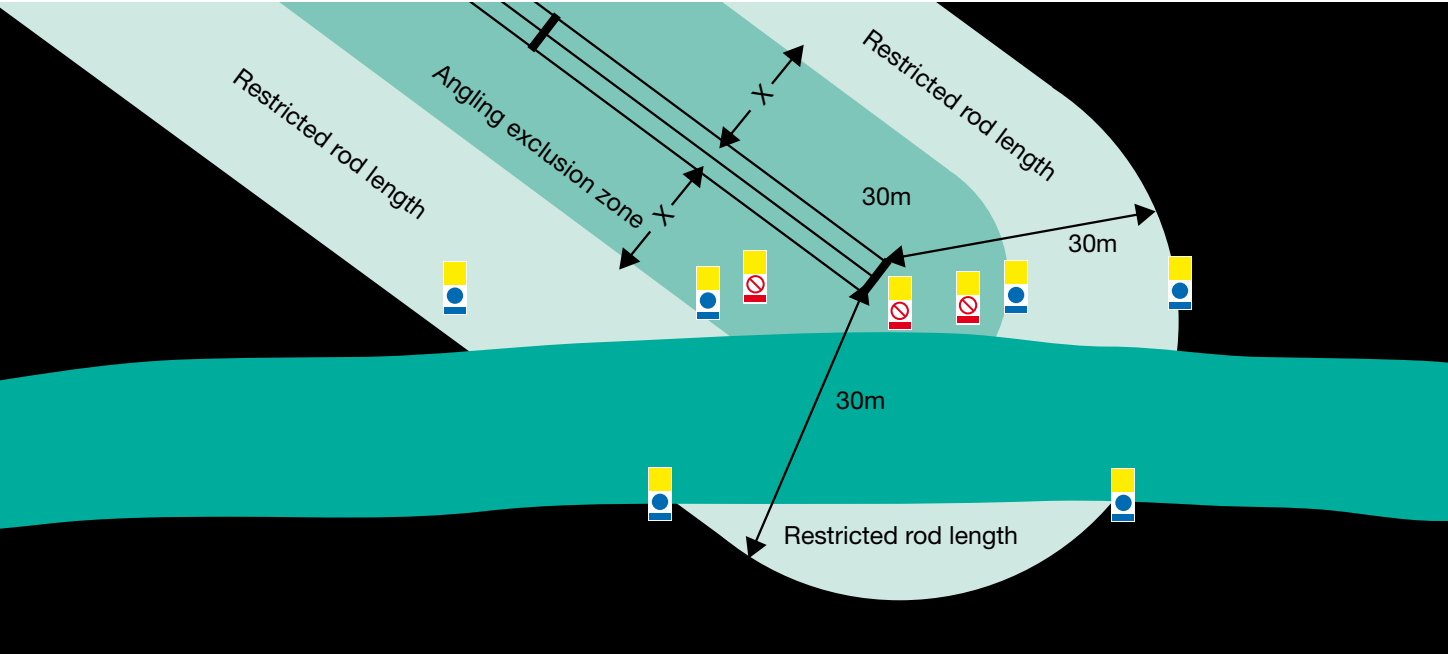
Appendix C
Examples of
Rod Length
Restriction Sign



Appendix D
How Signage
Could Be
Positioned to
Complement
the Risk
Assessment
Approach



i. Overhead line crossing watercourse.



Horizontal Separation Distance 'X' to be obtained from Appendix 'A' with the appropriate rod length included on Rod Length Restriction Sign



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

Warning notices to be erected at access points and be clearly visible

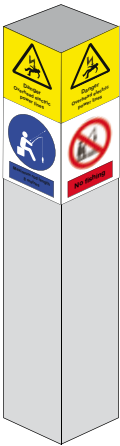


Rod length restriction sign

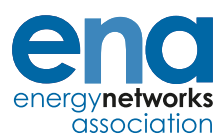


No Fishing sign

ii. Overhead line approaching and terminating on one side of the watercourse.



iii. Example for fitting signs at locations where two signs are required.



Energy Networks Association
6th Floor, Dean Bradley House
52 Horseferry Road, London SW1P 2AF

Tel +44 (0)20 7706 5100
www.energynetworks.org

© ENA 2013

Energy Networks Association Limited is a company registered in England & Wales No. 04832301. Registered office: 6th Floor, Dean Bradley House, 52 Horseferry Road, London SW1P 2AF