



**SP ENERGY  
NETWORKS**

## Case Study: Deep excavations required to install/repair 33kV cables



The above image highlights the size of excavations and the correct supporting techniques required to ensure safety at deep excavations.

Ground conditions require to be monitored on a regular basis due to changing weather conditions. Cold/frost/snow/rain/heat all require to be taken into consideration prior to entering the excavation. In this type of scenario a full risk assessment by a competent person should be carried out to ensure ground conditions and the supporting structure are stable enough to allow progression of works.

A risk assessment must be carried out to ensure ground conditions are stable.

**All Cable Record enquiries  
should be addressed to:**

**SP Energy Networks (North)**

Data Management  
(Correspondence)  
55 Fullerton Drive  
Cambuslang  
Glasgow G32 8FD

t: 0141 567 4155 or 0141 567 4455

e: Requestforplansscotland  
@scottishpower.com

**SP Energy Networks (South)**

Data Management  
(Correspondence)  
North Cheshire Trading Estate  
Prenton Way  
Prenton  
Birkenhead CH43 3ET

t: 0151 609 2373

e: Requestforplansmanweb  
@manweb.co.uk

**All Cable Deviation Requests  
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## Emergency contact

In an emergency, or if there is any damage to SP Energy Networks cables or plant, call the appropriate number:

**SP Energy Networks  
North**

*Central & Southern  
Scotland*

**0845 272 7999**

**SP Energy  
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*Cheshire,  
Merseyside  
& North Wales*

**0845 272 2424**



## Case Study: Establishing - Highlighting Cable Routes Onsite



The above image highlights professional on site practice; the underground cable route has been traced with a cable locator in conjunction with cable records and trial excavations, erecting warning signs will ensure all site personnel and visitors are aware of the underground electricity network. Highlighting cable routes with visual markers contributes to site safety and will assist in ensuring that the underground electrical routes are not damaged by site traffic, thereby reducing potential injuries to operatives. Prior to commencement of the main project works taking place is the correct opportunity to engage this type of safety measure.

**Highlight All Cable Routes With Visual Warning Signs To Increase Site Safety**

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## Case Study: Deep Excavations Around The Electrical Network



The above image demonstrates a deep excavation, with the correct support structure in place to ensure the stability of the excavation. The 5 metre deep excavation took place to install a 1.4m diameter concrete drain below 14 ScottishPower cables including 33KV, 11KV, pilot cables and telecommunication cables. The contractor approached ScottishPower at an early stage of the project regarding the proposal to install the drainage pipe below the electrical network supplying a method statement and a safe system of work in conjunction with ScottishPower requirements. Electrical cables are not to be supported without prior consultation with the electricity network owner.

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**0845 272 2424**

**Power Line & Cable Enquiries Contact Number:**

**0845 273 4444**

## Case Study: Deep Excavations Around The Electrical Network (2)



The above image demonstrates a deep excavation with the electrical network being supported, to allow the contractor to install a concrete sewer pipe below the cables. This project was discussed with SP Energy Networks prior to work progressing, with the required safe systems of work and method statements in place. To successfully complete this type of project the correct personnel with the relevant training and experience is crucial to ensure that the works are carried out in a safe and competent manner. Electrical cables are not to be supported without prior consultation with the electricity network owner.

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**0845 272 2424**

**Power Line & Cable Enquiries Contact Number:  
0845 273 4444**

## Case Study: Deep Excavations Around The Electrical Network (3)



The above image demonstrates a deep excavation which has taken place to repair a section of underground tunnel owned by ScottishPower. The tunnel which traverses through a part of Edinburgh has numerous cables which are critical to the electrical network. The key to undertaking and completing a project of this nature is to plan the required works to eradicate possible difficulties at an early stage. Ensuring the correct personnel with the relevant training and experience is crucial to ensure that the works are carried out in a safe and competent manner.

**Early Planning Of A Project With Risk Assessments,  
Safe Systems Of Work And Utilising Best Practice  
Will Contribute To A Safer Working Environment At  
Deep Excavations**

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