

Case Study: Replacement Of Low Voltage Network Box (Linkbox)



The above image highlights a situation where a low voltage network box requires to be replaced due to a cable fault on the existing electrical network.

The network box is a crucial part of the underground low voltage network, ensuring ScottishPower can back feed electrical supplies to premises in cable fault situations. Please note: the lead covered cables with old type lead joints. Lead covered cables/joints should not be moved or stood on at any time;

ScottishPower Underground Network Should Not Be Moved At Any Time Or Used As A Step/ Hand Hold Climbing Aid When Entering Or Vacating Excavation's

Always assume cables are present and live until proved otherwise

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 /Service Alterations enquiries should be addressed to:

SP Energy Networks (North)
Customer Connections
55 Fullerton Drive
Cambuslang
Glasgow G32 8FA
t: 0141 614 9997

SP Energy Networks (South)
Customer Connections
PO Box 290
Lister Drive
Liverpool L13 7HJ
t: 0151 221 2110

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
Networks
South**

*Cheshire,
Merseyside
& North Wales*

0845 272 2424





SP ENERGY NETWORKS

Case Study: Low Voltage link box buried in footpath



The above images highlight a situation where a ScottishPower link box (switching point) was buried in the footpath by persons unknown.

This situation was only brought to light when works were being undertaken by the local authority to reconstruct the footpath. Under the concrete link box cover there is a metal cover which should never be removed due to the electrical dangers within. Link boxes are critical to the ScottishPower network to allow electricity supplies to be re-routed in an attempt to maintain customer supplies on the low voltage network. ScottishPower Link boxes should not be interfered with or buried at any time.

Prior to any excavations taking place cable records should always be consulted.

Always assume cables are present until proved otherwise.

Always assume cables are live.

ScottishPower apparatus should never be interfered with at any time.

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0845 272 7999

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



SP ENERGY NETWORKS

Case Study: Low Voltage Underground Switching Network Boxes (Link Boxes)



The above images highlight low voltage underground switching boxes (link boxes) protected with a concrete cover.

When the concrete cover is removed the cast metal bell housing can be seen covering the live low voltage electricity network. The cast metal bell housing will only ever be removed by trained SP Energy Networks staff. Removal of the bell housing by untrained staff is an unsafe act and should not be contemplated at any time.

Any excavation around ScottishPower link boxes should always be conducted in accordance with HSG47.

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SP Energy

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Case Study: Link Box Covers (switching points) Tarred Over On Footpath



The above images highlight a situation which occurs on occasion

The task for the contractor who was operating on behalf of the local council was to remove and relay kerb stones and reinstate the existing footpath with tar. The Linkbox (switching point) was tarred over, this situation was only discovered when ScottishPower had a cable fault in the area affecting customer's supplies. Linkbox's are a crucial part of the network and should not be reinstated/buried over at any time. Restricting access to their network switching points will increase the amount of time customers are of supply.

SP Energy Networks linkbox's – pillars - apparatus should only be accessed – maintained by authorised personnel





Local Authorities Contractors Replacing ScottishPower Energy Networks Link Box Covers When Implementing Streetscape Refurbishments

SP Energy Networks have noticed an increase in the level of streetscape works taking place by local authorities over the last few years. The cause for concern for ScottishPower is that the local authorities/contractors are replacing link-box covers with metal covers with for example: Caithness slabs being imbedded into the metal covers to ensure that the street work projects are aesthetically pleasing.

ScottishPower require access to the electrical equipment below the link box covers 24 hours a day, the equipment being switching points to allow electricity supplies to be diverted in an emergency situation. Access to the switching points is being restricted due to the weight of the new covers being installed by contractors on behalf of the local authorities.

Gaining access to the switching points is gained by removing the link box cover, lifting the existing ScottishPower link box cover is normally a one person operation. With the streetscape works taking place and the new covers being replaced with metal covers and imbedded with various types/thickness's of slabs it is virtually impossible due to the weight of the new covers to lift the covers and gain access to ScottishPower apparatus.

Attached are various new link box covers situations where ScottishPower's access to the electrical network is being severely restricted due to the weight of the recently installed covers:

Replacing link box covers should only take place through dialogue with ScottishPower Energy Networks, to progress this type of enquiry telephone:

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0845 272 2424



Power Lines & Cable Enquires: 0845 273 4444



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Case Study: Typical Link Box Bell Housing covers



The above images highlight 2 types of SP Energy Networks link box bell housing covers which are situated beneath link box covers which can be found in many footpaths in the East of Scotland area (Edinburgh, Lothian's, Borders, Fife, & Falkirk) Link box housing covers should only be removed by ScottishPower electrically trained engineers. With many street scape projects taking place, on occasions there may be conflicts with footpath levels and existing link box covers.

**Always Seek Advice Regarding ScottishPower Apparatus
Prior to Works Progressing
Contact 0845 273 4444**

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Case Study: Intentional Damage To Bell Housing In Electricity Network Boxes



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The above images highlight a situation which has increased over recent years with local authorities carrying out numerous streetscape works. The images demonstrate link box bell housing covers which cover the underground electrical network. The link box covers have been removed to gain access to the bell housing covers protecting the electricity network. The problem for ScottishPower Energy Networks is that the handles of the bell housings have been removed making it practically impossible to gain access to the electrical network. ScottishPower Energy Networks apparatus should never be interfered with at any time, the consequences of contact with the electrical network can lead to serious injuries or in some cases death.

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Case Study: Access To Link Box (Underground Electrical Switching Point) Restricted Due To Inadequate Box Construction Technique



The above image highlights a situation which appears to be on the increase around ScottishPower EnergyNetworks link boxes (underground electrical switching points) the level of streetscape works undertaken by local authorities over recent years has increased.

The concern for ScottishPower is that local authorities/contractors are replacing link-box covers with metal covers, for example: Caithness slabs being imbedded into the metal covers to ensure that the street work projects are aesthetically pleasing. During the process of replacing link box covers, situations are occurring, where access to the switching points is being prevented due to the construction of the new box cover. ScottishPower cannot gain access to the electrical network as removing the bell housing is not possible. ScottishPower require clear, unimpeded access to all link box covers/bell housings 24 hours a day, to enable the necessary switching operations on the electrical network. Replacing link box covers should only take place through dialogue with ScottishPower EnergyNetworks.

**To Progress Link Box Covers Enquires Contact:
Power Lines & Cable Enquires: 0845 273 4444**

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Construction Site Traffic Damage to SP Energy Networks Linkbox (Electrical Switching Point)



The above image highlights a situation which occurred on a construction site where an SP Energy Networks link box (electrical switching point) was damaged through site traffic constantly traversing over the SP Energy Networks asset.

SP Energy Networks engineers arrived on site to discover the link box frame and cover missing and the bell housing preventing contact with live electrical apparatus damaged. Constant site traffic driving over the link box eventually caused an electrical flash over with loss of supplies to customers, fortunately on this occasion no injuries occurred to site operatives. All site traffic should have designated planned routes to ensure that contact with utilities plant (underground and overhead) will not take place.

Designated Planned Routes For Construction Traffic Prior to Construction Operations Commencing Will Ensure Contact With Utilities Plant Will Be Minimised

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