

Installation of High Voltage Underground Cables



TEMPORARY WORKING STRIP

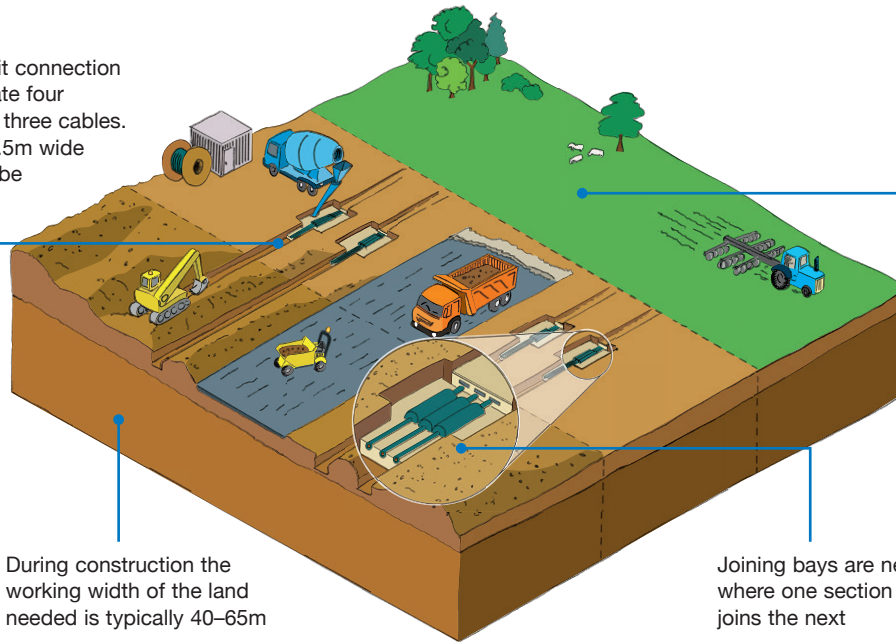
When installing a high voltage electrical underground cable, a temporary working strip is normally fenced off to permit the construction of the underground cable safely and efficiently. The width of this temporary working area is invariably more than the width of the easement strip required by National Grid, and may not necessarily be centred on the underground cable. The temporary working width area will allow for storage of topsoil and subsoil excavated from the trench(es) and construction drainage requirements.

The width of the working strip is dependent upon the the voltage of the underground cable, the number of cables and how many trenches are required. It may be increased at certain points, for example road, rail, river and canal crossings, to accommodate the more complex construction processes at these locations. Temporary fencing of the working area is normally maintained in position during construction until reinstatement of the land is completed.

After the works we will remove the fencing or, subject to prior agreement, it can be left for the landowner or occupier to use as they so wish at no extra cost.



For a 400kV double circuit connection we would need to excavate four trenches each containing three cables. A trench approximately 1.5m wide and 1.2m deep needs to be excavated for each cable



Once land is reinstated, land-use restrictions may apply to avoid risk of cables being disturbed or damaged

During construction the working width of the land needed is typically 40–65m

Joining bays are needed where one section of cable joins the next

LAND DRAINAGE FOR UNDERGROUND CABLES

The effect of construction on land drainage is probably the subject of most practical concern to the majority of landowners and occupiers along a underground cable route. We recognise that successful construction and reinstatement on a project hinges upon the quality of drainage design and installation. Accordingly, we will fully consult affected landowners and occupiers on all aspects of land drainage restoration and will give you the opportunity to inspect the drainage works as they progress. Where it will be of benefit, ‘cut-off’ drainage will be installed before construction. Cut-off drainage is designed to ensure that existing drainage systems outside the underground cable working strip function properly during the construction period. They also reduce the flow of drainage water onto the working strip and into trenches when excavated.

The main phase of drainage works occurs after the underground cable has been installed and before topsoil reinstatement. The design of the drainage schemes will be agreed in detail with the landowners and occupiers and will normally include a combination of the permanent cross connection of existing drains coupled with the installation of new drains laid in parallel to the underground cable(s).

Accurate records of all existing and new drainage will be kept, and affected landowners and occupiers will be given copies of these records once construction is completed.

DAMAGE, REINSTATEMENT AND COMPENSATION

On completion of any works we will:

- return the land, as far as is reasonably practicable, to its original condition, including reinstating any walls fences or hedges removed;
- compensate for all reasonable proven loss;
- ensure that any timber cut remains the property of the owner and is tidily stacked, and left on site unless removal is requested;
- repair, divert or modify land drains damaged as a result of construction works; and
- pay reasonable fees, based on National Grid fee scale policy, for any agent retained to negotiate and settle a compensation claim, should any landowner or occupier choose to be professionally represented.

If National Grid and the landowner or occupier are unable to reach agreement on the method of reinstatement or compensation, an independent assessor will be jointly appointed.

National Grid recognises the unique ability of any landowner or occupier to deal most effectively with their own land. We will work with you to agree a management plan following the completion of the underground cable construction works. Using your knowledge and ability to undertake restoration works at the optimum time will allow an effective programme of restoration to be drawn up.

The restoration programme will then be assessed by all parties on an annual basis and amended as necessary.