

Macclesfield to Bredbury

Overhead line refurbishment

March 2017



What work is being done?

National Grid is undertaking planned refurbishment of the 18km overhead electricity line that runs between our substation at Macclesfield to Bredbury.

The line has been in use for nearly 50 years and the work will be a like-for-like replacement. There will be no new pylons. This essential work will help to ensure the region continues to benefit from the safe and reliable energy supplies on which we depend every day.

Overview of the work

The main refurbishment work will involve replacing the existing conductors (wires) and the fixtures and fittings on the 55 pylons along the route. We will also be painting the pylons. Preparation work will start in March and the main work will start in July and is planned to be finished by the end of September.

Before we carry out the main refurbishment work we need to cut back vegetation and lay tracks to prepare the access routes to our pylons. In some places we will lay temporary trackway in fields so we can get to our pylons with minimum damage to the land.

Working with the environment

At the beginning of each project we consider carefully the environmental effects of our work to ensure that any potential impacts to the environment are minimised. We have undertaken ecology surveys in all the areas that we will be working in.

Our commitment to you

During the work our primary concerns are ensuring the safety of the public and minimising disruption to the local community. We are committed to working with our neighbours and will keep in regular contact with those directly affected. We will make every effort to ensure we carry out the work as quickly and efficiently as possible. If you would like more information, please contact our community relations team on 0800 8199 071.



A typical site from an overhead line refurbishment project

Refurbishment of an overhead line

An overhead line is constructed using a variety of materials, from concrete and steel for the foundations, to steelwork for the pylon and aluminium and steel for the conductors. All these materials have an expected lifespan which varies depending on how the overhead line is used and where it is located. Typically, the pylons will last for about 80 years, whereas the conductors, insulators and fittings normally last for about 40 years. As a result of this each overhead line will usually go through at least one refurbishment during its lifespan. The refurbishment is carried out as two separate periods of work. This is because overhead lines have two circuits, one on each side of the pylon, so work is carried out on one side only, in order that the other side can be kept ‘live’. Once all the work has been completed on one side of the overhead line, the circuit is switched back on, and the opposite side is switched off so that the work can be carried out on that side. On this line we refurbished one of the circuits in 2011. We normally try to do both circuits at a similar time but the line between Macclesfield and Bredbury splits and goes to different parts of the network. This, and the fact that each circuit carries a different voltage, means that we have to do the work to each circuit separately.

Full refurbishment

We will be doing a full refurbishment. This involves the replacement of all the conductors and earth wire, the insulators and all the fittings that hold the conductors and insulators in place. During a refurbishment there is a lot of activity along the overhead line, especially at angle pylons (where the line changes direction) and where the new conductor is installed and the old conductor taken down. This includes vans carrying workers in and out of site, tractors and plant for doing the work, and trucks taking new materials and equipment into site and removing the old materials. We also carry out additional temporary works over the whole route length, such as scaffolding to protect roads, railways, distribution power lines and buildings, access and accommodation works to enable vehicle and plant access to site, and opening site yards to house the staff, equipment and materials for the works.

What you will see when we are doing this work

You will see people working on the pylons and lines, along with a range of machinery and other vehicles in the areas that we are working in. You will also see our traffic management signs on the roads where, for safety reasons, we need to control the flow of vehicles or close roads. These signs will warn road users of our work in the area and will remain in place throughout the project. We will also be erecting scaffolding and safety netting over some roads and footpaths where the line passes overhead. We will also need to close some footpaths and diversion routes will be signposted. We will need to use some residents and businesses land to work from. We have already been in contact with and met with those affected.

Some parts of the line pass over people’s homes and businesses. We will use a safety system to avoid having to scaffold over these areas. Residents and businesses affected will be written to and our plans explained in more detail nearer to the time we will be starting work. We will do everything we can to minimise disruption but safety will be our highest priority.

Some of your questions answered

What will your working hours be?

Normal working hours will be between 7am and 7pm seven days a week with work out-of-hours if necessary. We will do everything possible to keep disturbance to the local community to a minimum.

Will the construction work mean additional traffic in the area?

Yes, you may notice more vehicles in the area but to ensure that we minimise disruption to the local community, we will provide clear signs and ensure vehicle movements are kept to a minimum where possible.

We will emphasise to our staff and contractors the special care that they need to take when driving in the area.

What will the impact be on the local roads and public rights of way?

Some local roads will have some closures or traffic management during our work. This will include closing part of the Silk Road in Macclesfield town centre for a few days during the summer. Residents and businesses in these areas will be written to with details of our plans before we start work. We will put up signs well before we close roads to warn people and during any closures diversion routes will be in place and sign posted.

We will agree a traffic management plan with the local authority and look to minimise the impact as much as possible.

We will also need to temporarily close some public rights of way where the electricity line crosses overhead. This will include some parts of the Middlewood Way. We will clearly sign post closures and provide details of any temporary diversions. These are in place for your safety so please make sure you follow them.

Will there be local power cuts during the proposed work?

No. This work will have no impact on your electricity supply. The overhead line we will be working on is part of the national transmission system and has no direct effect on homes, businesses, schools and other premises in the local area.

Do you need access to other people’s land?

Wherever we need to work in or above private land a member of our Land and Business Support Team will contact the landowner to discuss this in advance of any work taking place. Following the work we will fully reinstate the area as agreed with the landowner.



About us

National Grid is an international electricity company and one of the largest investor-owned energy companies in the world. We play a vital role in delivering electricity to millions of people across Great Britain in an efficient, reliable and safe manner. We are committed to safeguarding our global environment for future generations, tackling the effects of climate change, and to providing all of our customers with the highest standards of service.

National Grid owns the high-voltage electricity transmission network in England and Wales and operates the system across Great Britain.

Contact us



You can find out more information by



Freephone 0800 8199 071, 9am to 5pm, Monday to Friday with an answerphone services outside of these times



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If you, or someone you know, would like information in Braille, audio, large print or another language, please call us on the freephone number above.