

# Frequently Asked Questions

Dinorwig to Pentir underground cable replacement project



## We need to replace the existing underground cables between Dinorwig Power Station and our substation at Pentir.

**This work is to make sure that electricity supplies remain secure and reliable for the local area and beyond.**

The cable replacement project is a complex engineering scheme. This document answers the most common questions we receive.

### What does National Grid do?

National Grid owns the high-voltage electricity transmission network in Wales and England. We're responsible for making sure electricity is transported safely and efficiently from where it's produced to where it's needed.

### Why are you replacing the underground cables?

National Grid needs to replace the existing underground cables between Dinorwig Power Station and our substation at Pentir. The original cables were installed in the late 1970s and have been in use ever since. They are now coming to the end of their operational life and need replacing to maintain the security of electricity supplies for the local area and beyond.

### Why is Dinorwig Power Station so important?

First Hydro Company operates and maintains Dinorwig Power Station, sometimes known as 'Electric Mountain'. The station is a vital part of the electricity network in Wales and England. It provides fast-response power generation when electricity consumption is at its peak, helping us to maintain a reliable supply to British homes and businesses. Dinorwig Power Station is capable of reaching maximum generation in less than 16 seconds.

### Where are the new cables going?

Our work is happening between Dinorwig Power Station and our substation at Pentir. We are installing three new circuits in total.

The routes for these include installing cables along the A4244 and the A4086, and under Llanberis Lake Railway. Visit our project website to view a map of our project. You can find the website address at the end of this leaflet.

### Are the new cables taking the same routes as the existing cables?

No, we need to find a different route for the replacement cables. This is because the existing connection plays such an important role it can't be disconnected from the national network while we install the replacement cables. We need to keep Dinorwig Power Station operational throughout the cable replacement scheme and there is insufficient space along the existing cable routes to install new circuits while the existing remain operational.

### How did you decide where to put the cables?

Before we started work, we carried out a detailed review of a wide range of factors when deciding where to place the new cables. This included considering the environment, engineering, security, land and property owners, the community and archaeology.

We found that installing the new cables in the A4086, A4244 and under Llanberis Lake Railway would minimise effects on the environment and local people and their property. We are also using a technique called Horizontal Directional Drilling (HDD) to install our cables under sensitive locations, further minimising the impacts of our work.

### **What is Horizontal Directional Drilling?**

Our new cables will need to cross some obstacles that we don't want to disturb or close, such as rivers. We'll use a drilling technique called Horizontal Directional Drilling (HDD) to install our cables underneath these obstacles. This technique involves drilling a small bore hole under an obstacle and pulling the new cable through. It's a precise process and we have successfully used this technique on many other projects across the UK.

### **What permission do you need to do the work?**

We are undertaking much of our work under National Grid's permitted development rights for essential national infrastructure. We are working closely with Cyngor Gwynedd, Natural Resources Wales and other important organisations as well as landowners to secure other specific permissions and licences we need to do our work.

### **Will your work be noisy?**

While some of the work required generates noise, where possible there will be measures in place to make sure this is kept to a minimum.

### **Will there be any road closures?**

We recognise that road closures are disruptive, so we want to avoid them wherever we can. We closed the A4086 in Llanberis between January and March 2022. We also closed the top of the High Street in Llanberis in early January 2023, for two weeks. We currently don't plan to close any more roads as part of our project. However, if our plans change, we will keep local people up to date.

### **How will you keep roads open?**

We are installing our new cables in one side of the carriageway along much of the A4086 and A4244. This means we can keep one lane open and use temporary traffic lights to keep traffic moving. We will use a two-way traffic management system and we'll continually monitor traffic flows as we work. We will also adjust timings for peak traffic periods and if there are events on locally.

### **How are you minimising your effects on the sensitive local environment?**

In developing our plans, we've looked to avoid impacting sensitive areas. This is one of the main reasons we're installing our cables in roads, rather than across the countryside.

We've also been working closely with important local stakeholders, including Cyngor Gwynedd, Natural Resources Wales and Cadw to ensure that we mitigate our work as far as possible and avoid important sites. We have carried out detailed surveys to assess environmental issues and are committed to reducing the impact of our work where possible.

### **How will your project affect tourism in the area?**

We recognise that tourism is a cornerstone of the economy and many people's lives in North Wales. We won't be working on the roads during Cyngor Gwynedd's embargo periods around peak holiday periods.

### **Will people's homes and land be affected by the project?**

While we have developed this scheme to minimise effects on local people, we do need access to some land locally. We've been engaging with landowners about this project for a number of years, to agree the work we are doing. As we work, we do not expect services to properties to be interrupted.

### **Are there any job opportunities?**

Our contractors, including Morgan Sindall, use an agency called VGC for any recruitment needed for the project. People can register with them and find out about any job opportunities online at [www.vgcgroup.co.uk](http://www.vgcgroup.co.uk). National Grid's website also has information about our career opportunities.

### **How else can local people benefit from this project?**

National Grid offers a Community Grant Programme which helps fund projects in communities affected by our work. More information on the scheme, the criteria and how to apply can be found on our website: [nationalgrid.com/responsibility/community/community-grant-programme](http://nationalgrid.com/responsibility/community/community-grant-programme)

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## **Get in touch**

Call our freephone number: **0330 1340066**

Send an email to: [nationalgrid@dinorwig.co.uk](mailto:nationalgrid@dinorwig.co.uk)

[nationalgrid.com/uk/electricity-transmission/network-and-infrastructure/dinorwig-pentir](http://nationalgrid.com/uk/electricity-transmission/network-and-infrastructure/dinorwig-pentir)

