

Project News

Bodelwyddan Substation upgrade proposals

Supporting Wales's energy ambitions – we want your views

We propose to extend our Bodelwyddan Substation, in Cefn Meiriadog south of St Asaph Business Park, so we can safely connect new sources of clean renewable energy in North Wales to the electricity network.

Wales and UK Governments have set ambitious targets for developing new homegrown sources of renewable energy at scale over the next decade. The Welsh Government has set a target of meeting the equivalent of 70% of Wales's electricity demand from renewable energy sources by 2030.

To help achieve these targets, we're working closely with both UK and devolved Governments, as well as other important stakeholders, to look at future scenarios for upgrades to the electricity transmission system.

It's also expected that demand for electricity will at least double by 2050 as we shift to clean energy to drive electric vehicles, heat our homes and power our industry. To meet this demand, new UK based sources of energy generation will need to connect to our electricity network.

Together, this means a once-in-a-generation grid upgrade is needed across Wales and England, to ensure the energy transmission network is fitter, greener and reliable for our future.



Existing overhead line entering Bodelwyddan Substation

National Grid's role

We don't generate energy ourselves. We own and maintain the high-voltage electricity transmission network in Wales and England, transporting electricity via our high voltage network to the local distribution system so it reaches homes and businesses.

As a business regulated by Ofgem, we have a legal obligation to connect new sources of energy generation to our transmission network when requested. We need to connect proposed new energy generation projects in North Wales to our network. These include the EnBW and bp Mona and RWE Awel y Môr offshore wind farms, and the

MaresConnect subsea interconnector cable between Wales and Ireland.

This substation upgrade project is part of a major programme across Wales and England. It will help meet growing homegrown generation and demand, help regional business grow and keep electricity bills as affordable as possible.

We are consulting local people and organisations on our proposals between 10 October and 7 November 2023, and as part of this we are holding events on 12 and 14 October – see back page for more details.

Our proposed extension to Bodelwyddan Substation

What does an electricity substation do?

Electrical substations, such as Bodelwyddan Substation, play a key part in transmitting electricity through our national system.

One of the main typical roles of substations is to convert electricity into different voltages. The voltage is stepped up or down through equipment called transformers, which sit within the substation site.

This is so the electricity can be transmitted throughout the country by National Grid and then delivered at a lower voltage to local homes and businesses by the Distribution Network Operator, in this case SP Energy Networks.

Bodelwyddan Substation at Cefn Meiriadog is also a connection point for sources of energy generation into the transmission network.

Why do you need to extend the existing site?

We need to connect new proposed sources of low carbon energy in North Wales to our existing network. These include the EnBW and bp Mona and RWE Awel y Môr offshore wind farms, and the MaresConnect subsea interconnector cable between Wales and Ireland.

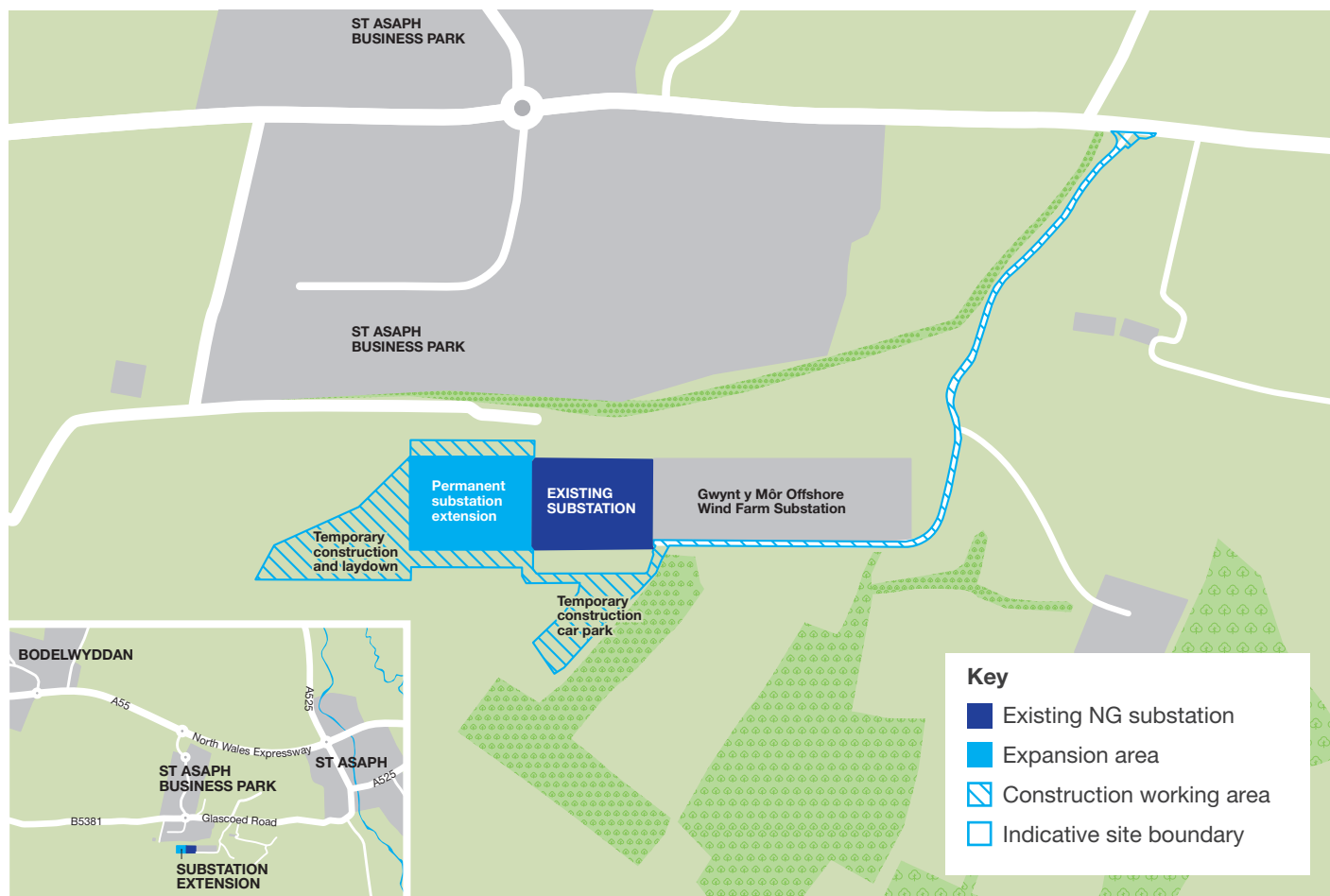
We have considered a number of options on how and where is best to do this efficiently, safely and economically.

After assessing potential options, it was concluded that we need to extend our existing Bodelwyddan Substation. We are therefore consulting on our proposal to extend the substation to the west by approximately 8,800 square metres. This extension includes areas for new gantries, an access road and developer cable sealing ends.

Within the substation there will be a new building that will house equipment, and this will have a footprint of approximately 1,263 square metres. The substation extension will be in a similar layout and at the same height as the current substation.

We are in ongoing discussions with landowners and carrying out environmental and technical surveys. Our consultation with local people is an essential and important part of the process. We would welcome your views as part of our consultation – see back page for more details of how to take part.

We are also making information available on the separate but related work we need to do to reconfigure the existing overhead line – read more on the next page.



Other work we need to do

As a separate but related part of our work, we need to change how the existing overhead line that currently runs between Pentir in Gwynedd and Connah’s Quay in Flintshire enters and leaves the expanded substation.

Having considered a number of options on how to do this, we propose to adjust the current ‘T’ arrangement and split the existing single route into two. We’ve concluded this is the most efficient option that requires the least changes to the existing configuration.

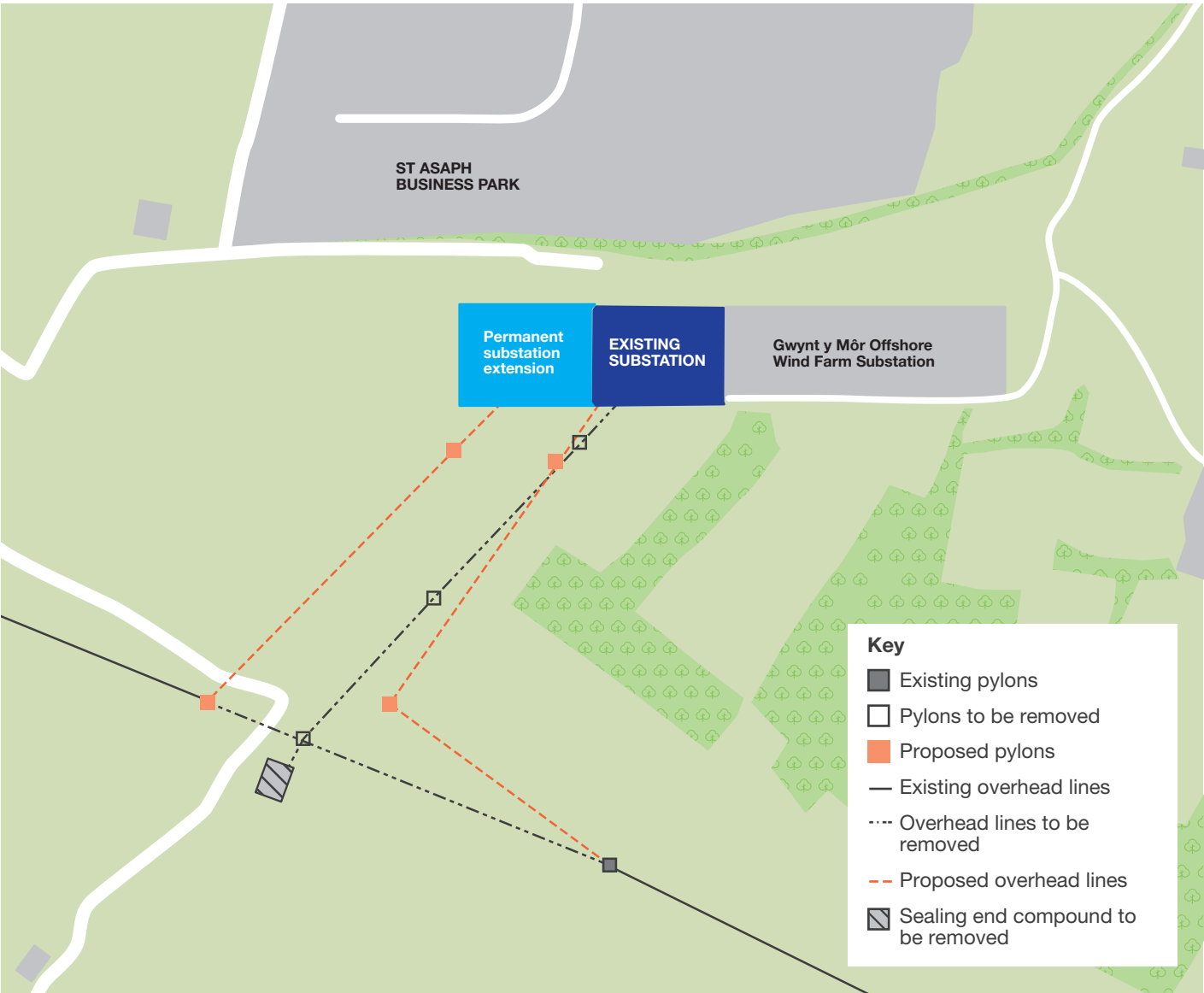
We will do this by removing one pylon and two gantries. We would replace these with four new pylons in broadly the same area south of the substation, with the reconfigured circuits entering and leaving the site separately.

Are you consulting on this?

Yes, although this element of the work on the existing overhead line follows a different consent process, which requires us to seek approval from the Secretary of State under Section 37 of the Electricity Act 1989. Denbighshire County Council and other organisations

and stakeholders will be asked for their views as part of this process. You can also take part in this process and make representations on the consent application.

The overhead line works are related to the substation extension, so we think it’s important to explain this aspect here so people can see and understand the work we need to do as a whole.



Have your say

Our consultation on the proposed Bodelwyddan Substation extension is taking place between 10 October and 7 November 2023. You can give us your feedback in writing in a number of ways:

- Find out more and complete an online feedback form on our website. You can access the website by scanning the QR code at the bottom of this page, or alternatively, visit nationalgrid.com/electricity-transmission/network-and-infrastructure/infrastructure-projects/bodelwyddan-substation
- Pick up a printed feedback form at one of our events, complete and post it back to us for free. Or get in touch and we'll be happy to send you one.
- Send us an email at Bodelwyddan@nationalgrid.com
- Write to us at
FREEPOST NG SUBSTATION

Come and meet us at our events

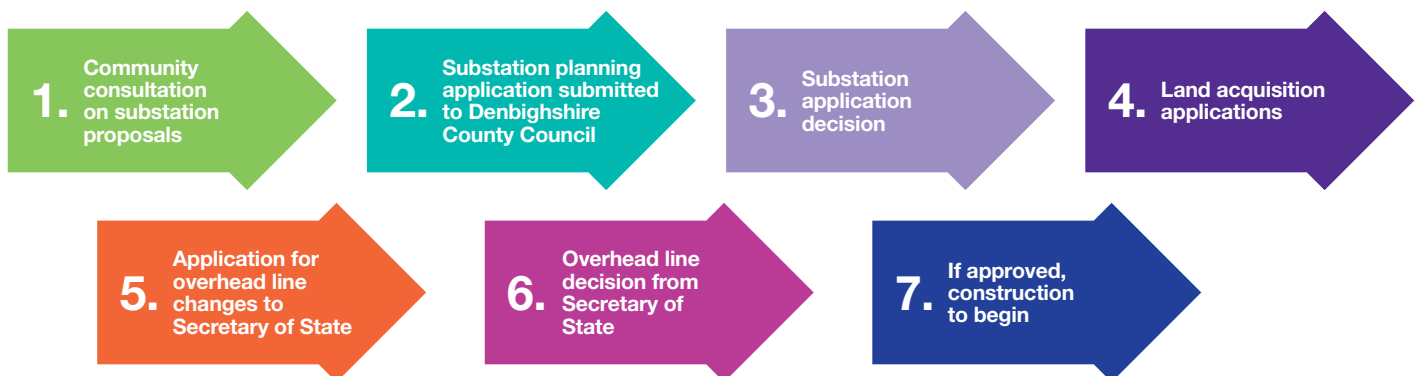
We are holding two events where more information will be available. You can also talk with members of the team and ask any questions you may have.

Event details:

- Neuadd Owen Village Hall, Cefn, LL17 0EY
- Thursday 12 October, 15:00–19:00
- Saturday 14 October, 10:00–13:00

If you can't attend one of our events, don't worry – you can find more information on our website, or you can contact us to find out more, see below. You can then give us your feedback in the same ways.

What happens next?



After our consultation closes on 7 November, we will review all of the written responses we receive. We will then collate and respond to the feedback in a Pre-Application Consultation report that will form part of our planning application which will be submitted to Denbighshire County Council later this year.

The Council will then consider our application before making a decision.



Get in touch

Send an email to: Bodelwyddan@nationalgrid.com

Call us free on: **0800 915 3596**

nationalgrid.com/electricity-transmission/network-and-infrastructure/infrastructure-projects/bodelwyddan-substation



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