

BRYN GILWERN AND ABEREDW GRID CONNECTIONS

Non statutory consultation brochure – September to October 2024

Delivering a positive, clean energy future for Wales



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Introduction

Green GEN Cymru is proposing two new 132kV (132,000-volt) overhead line connections, supported on wood poles, to connect Bute Energy’s Bryn Gilwern and Aberedw Energy Parks to a proposed new local distribution network.

The proposed Bryn Gilwern connection is approximately 5 kilometres, and the Aberedw connection is just over 1 kilometre.

The two overhead line connections are separate projects. We are consulting on them together because they will both connect at the same location.

This consultation brochure provides more information on the two projects, explaining why they are needed, and details of the preferred routes.

Our non-statutory consultation runs from Wednesday 11 September to Wednesday 23 October 2024.

We look forward to receiving your feedback on our proposals which will be vital in helping us develop the two projects.



Green GEN Cymru - who we are and what we do

Green Generation Energy Networks Cymru (Green GEN Cymru) is proudly based in Wales and is developing green energy networks to meet the future needs of Wales’ people, communities, and businesses.

We have a vision for a healthier, wealthier Wales, that uses clean energy generation as a positive power locally and regionally, to create a more sustainable future for this and future generations.

Designing green energy pathways across Wales

As an Independent Distribution Network Operator (IDNO), we’ll design, construct and maintain a new 132kV (132,000- volt) electricity distribution network - needed to connect new Welsh renewable energy projects to the electricity transmission network, helping to get green energy to homes and businesses across Wales and beyond.

Adopting renewable energy sources will have positive impacts on local communities right across the country. Connecting local generation to the National Grid is crucial for improving our energy independence and resilience and reducing our vulnerability to UK energy supply disruptions. Our new renewable network will create jobs and stimulate economic growth, reduce pollution, and improve public health.

You can find out more at the Green GEN Cymru website greengencymru.com.



Local and regional approach to delivering a low carbon future

Green GEN Cymru is actively developing a robust and sustainable electricity network to support Wales' renewable energy future.

There's endless potential for renewable energy in Wales, particularly from the wind that blows across our hills and mountains. We need to get the green energy generated to the many homes, hospitals, schools, businesses and communities that need it across Wales and beyond.

The electricity network in Wales was built a long time ago to carry energy from old fossil-fuel power stations in the north and south. The existing network in Mid Wales does not have nearly enough capacity to connect all the new renewable energy we need for our homes and businesses, locally and nationally.

To stop using fossil fuels, we urgently need new sustainable and resilient infrastructure in Wales.

Our proposed network enables the direct connection of community and other renewable projects, while reducing pressure on the existing electricity grid, supporting energy resilience and enabling the rollout of green heating and electric vehicles.

A key goal in tackling the climate emergency is to generate more energy from renewable sources and phase out the use of fossil fuels.

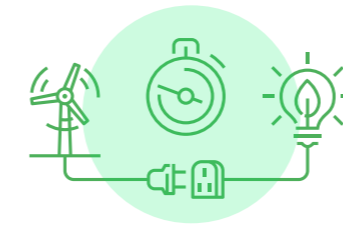
To respond to this challenge and the Welsh Government's target to meet the equivalent of 100% of Wales' electricity needs from renewable sources by 2035, we're developing a stronger, more resilient renewable electricity network that is greatly needed in Wales – distributing clean, green energy.



We want to make sure Wales has the energy it needs in a Net Zero world

As an Independent Distribution Network Operator (IDNO), proudly based in Wales, we are acting now to build and operate a green energy network for Wales, providing clean, reliable, and sustainable energy to our homes, businesses, and communities.

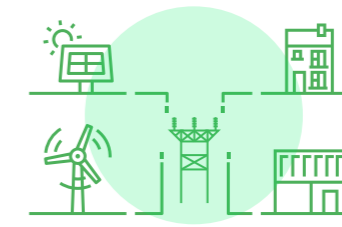
How we're addressing these challenges:



Connecting renewable generation, reducing use of fossil fuels



Acting fast and delivering projects efficiently



New grid infrastructure to connect renewables to homes and businesses



**THE NEED FOR CHANGE –
DELIVERING A LOW CARBON FUTURE**



Why do we need to develop these projects?

The Bryn Gilwern and Aberedw Grid Connections, supported on wood poles, will connect Bute Energy's Bryn Gilwern and Aberedw Energy Parks to a proposed new local distribution network at a new electricity switching station, located at the foot of Aberedw Hill, north-east of Builth Wells.

The existing electricity network does not have sufficient capacity to connect new renewable energy generation to the national grid. We need to act now to build new electricity infrastructure to ensure our local communities can benefit from renewable energy generated in Wales as our nation moves away from reliance on fossil fuels.

Bute Energy's proposed Bryn Gilwern and Aberedw Energy Parks will have a combined wind generating capacity of 192 megawatts, enough to power around 175,700 homes and save approximately 261,500 tonnes of carbon per year.

To learn more Bute Energy's proposals, visit:

aberedwenergypark.wales and bryngilwernenergypark.wales

A resilient network for a low carbon future

A high performing electricity network is key to:



Making the transition to a future in which we end the use of oil and gas



Supporting the roll out of low carbon technologies such as electric vehicles, heat pumps and other technologies



Ensuring homes, education and businesses, both locally and nationally, have access to low carbon energy



Helping communities prosper by providing electrical capacity to support investment in jobs, businesses, and housing



About the Bryn Gilwern and Aberedw projects

The Bryn Gilwern and Aberedw Grid Connections will connect Bute Energy's Bryn Gilwern and Aberedw Energy Parks to a proposed new local distribution network. The two new 132kV overhead lines, supported on wood poles, will connect to a proposed new electricity switching station, located at the foot of Aberedw Hill, north-east of Builth Wells.

The proposed Bryn Gilwern connection is approximately 5 kilometres, and the Aberedw connection is just over 1 kilometre.

The two overhead line connections are separate projects. We are consulting on them together because they will both connect at the same location.

New electricity lines of 132kV and above are classed as a Development of National Significance (DNS) in Wales, requiring consent from Planning and Environment Decisions Wales (PEDW) and final decisions are made by the Welsh Ministers.

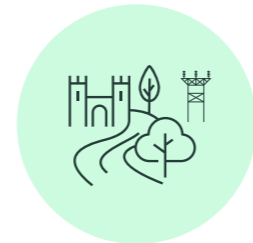
Once our proposals have been finalised, we will submit two separate applications to PEDW – one for the Bryn Gilwern connection and one for the Aberedw connection.

Identifying the preferred routes

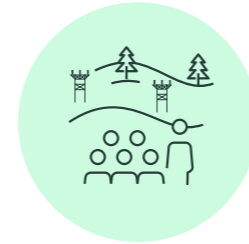
Working with our specialist consultants, we carefully identified and assessed a number of potential overhead line route options to connect the new Energy Parks to the electricity network. Our proposed overhead line network has been carefully designed to take into consideration the technical requirements and how each option might affect local communities, the landscape and local views, biodiversity, forestry, cultural heritage, flood risk and other land uses along the route.

We then selected a preferred route and identified a potential draft alignment, including indicative wood pole positions, for both the Bryn Gilwern, and Aberedw grid connections. We believe the preferred routes achieve the best balance between our technical requirements and reducing the potential impacts on the environment and the nearby communities.

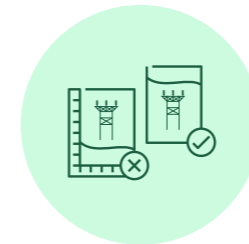
In identifying the two routes, we assessed:



Environment and heritage



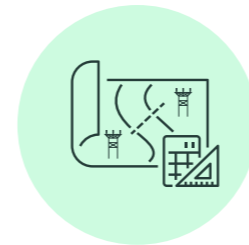
Community effects



Visual effects



Costs



Technical needs

In developing our proposals, we have aimed to reduce the potential visual effects as much as possible, carefully considering the viewpoints from locations such as properties, and using existing trees and vegetation for natural screening where possible.

We will continue to refine our proposals as we progress the design and alignment for the two new overhead lines, considering the terrain and seeking ways to further reduce the potential impacts on the environment and those who live, work and spend time in the area.

Our aim is to meet the technical needs of the project while carefully balancing and respecting the sensitivities of the surrounding environment.

More information

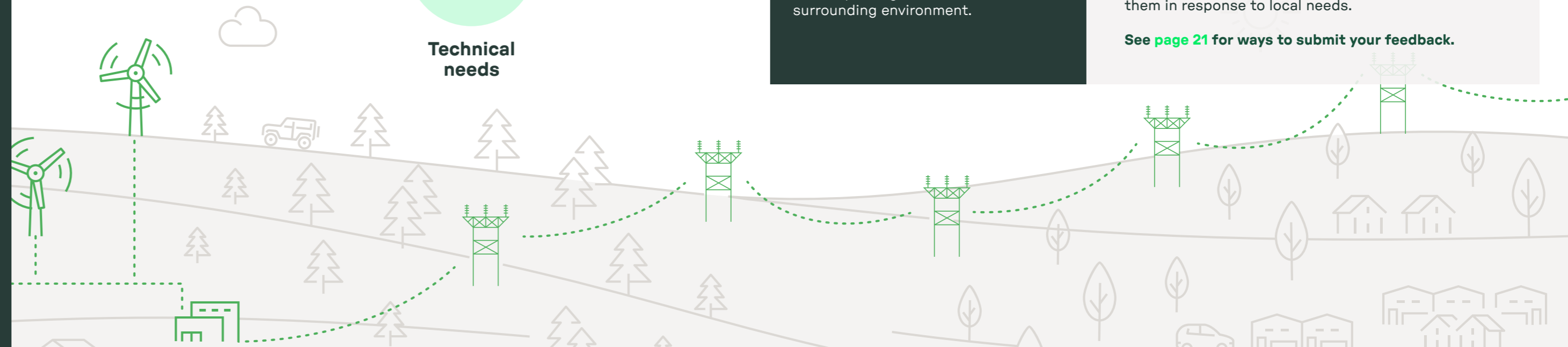
You can read more about the routing work we have carried out and the processes we've gone through to identify the preferred route for each connection, in the Routing Alignment Reports on our websites.

greengenbryngilwern.com | greengenaberedw.com

Your feedback

Your feedback can help us better understand any potential effects of our proposals so we can develop them in response to local needs.

See [page 21](#) for ways to submit your feedback.





What will the wood pole overhead lines look like?

The overhead lines for the Bryn Gilwern and Aberedw grid connections will be supported on wood poles.

The poles are typically between 14 and 16 metres tall. The average distance between the wood poles, or 'span length' is approximately 110 metres.

The exact wood pole heights and span lengths vary depending on the terrain or obstacles they cross, such as streams and rivers.

Where the overhead lines change direction, angle poles will be required, with stay wires for stability.



Overview of our preferred routes

We've included a selection of maps showing the two preferred routes.

The following pages provide more information on the two overhead line connections, and what has influenced our decisions to date.

Overview map of the preferred route for Bryn Gilwern and Aberedw

Bryn Gilwern preferred route map

Aberedw preferred route map

Get involved - have your say on our proposals

We want to hear your views on our proposals and any concerns you may have, to help us take account of local needs as we develop our plans.

See pages 20 to 21 for details of consultation events in your area, and ways to submit your feedback.

INTERACTIVE MAP

An interactive map showing the preferred route, and the draft alignment, including indicative wood pole positions for the Bryn Gilwern and Aberedw connections can be viewed on the project websites:



Bryn Gilwern Grid Connection

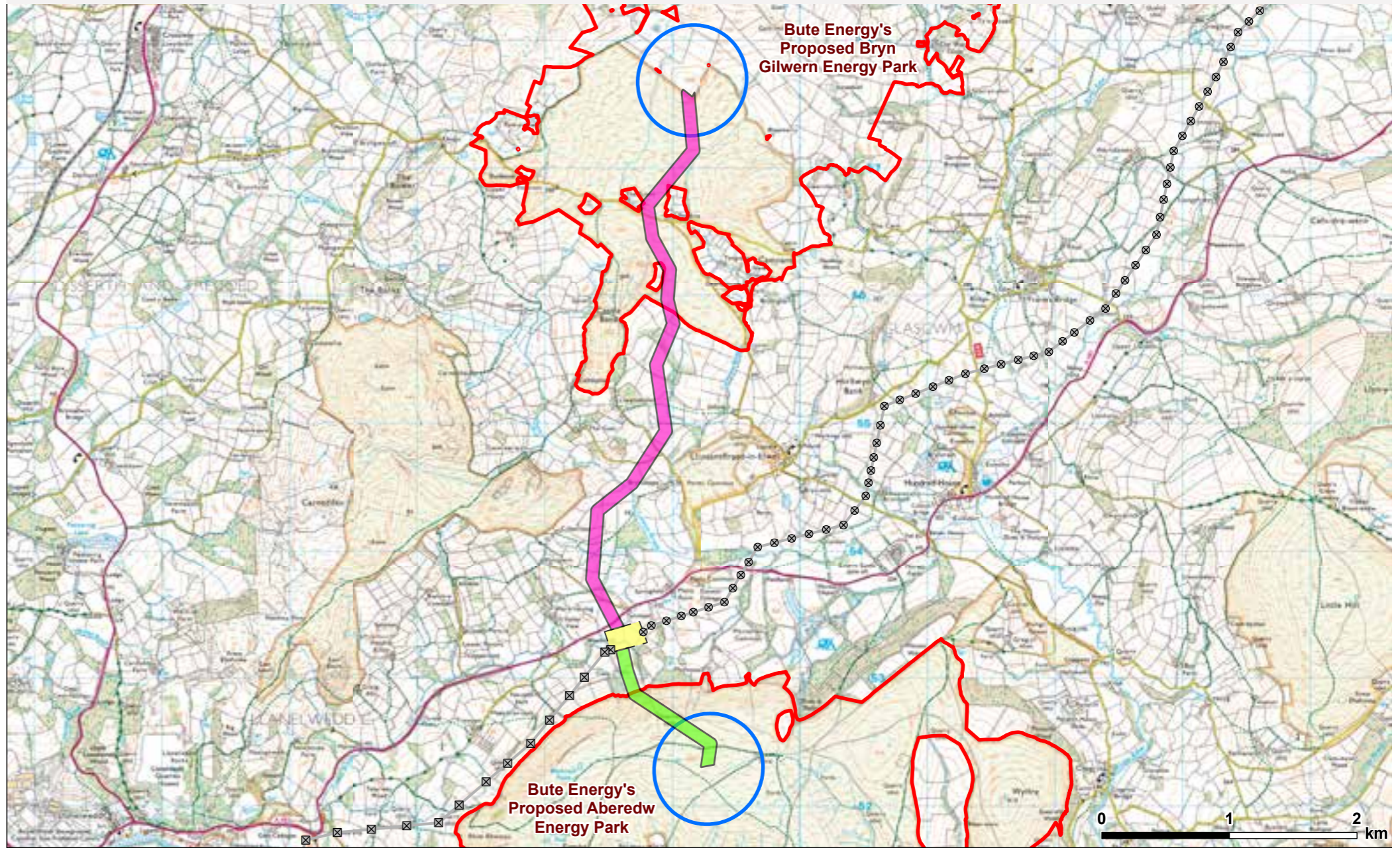


Aberedw Grid Connection

Key

- Preferred Bryn Gilwern Route Option
- Preferred Aberedw Route Option
- Bute Energy's Proposed Bryn Gilwern Energy Park
- Bute Energy's Proposed Aberedw Energy Park
- Bute Energy's Indicative Proposed Bryn Gilwern Energy Park substation location
- Bute Energy's Indicative Proposed Aberedw Energy Park substation location
- Proposed Towy Usk Draft Alignment - March / April 2024
- Indicative Towy Usk switching station location

Overview of the preferred route for Bryn Gilwern and Aberedw



Bryn Gilwern preferred route

Our preferred route explained

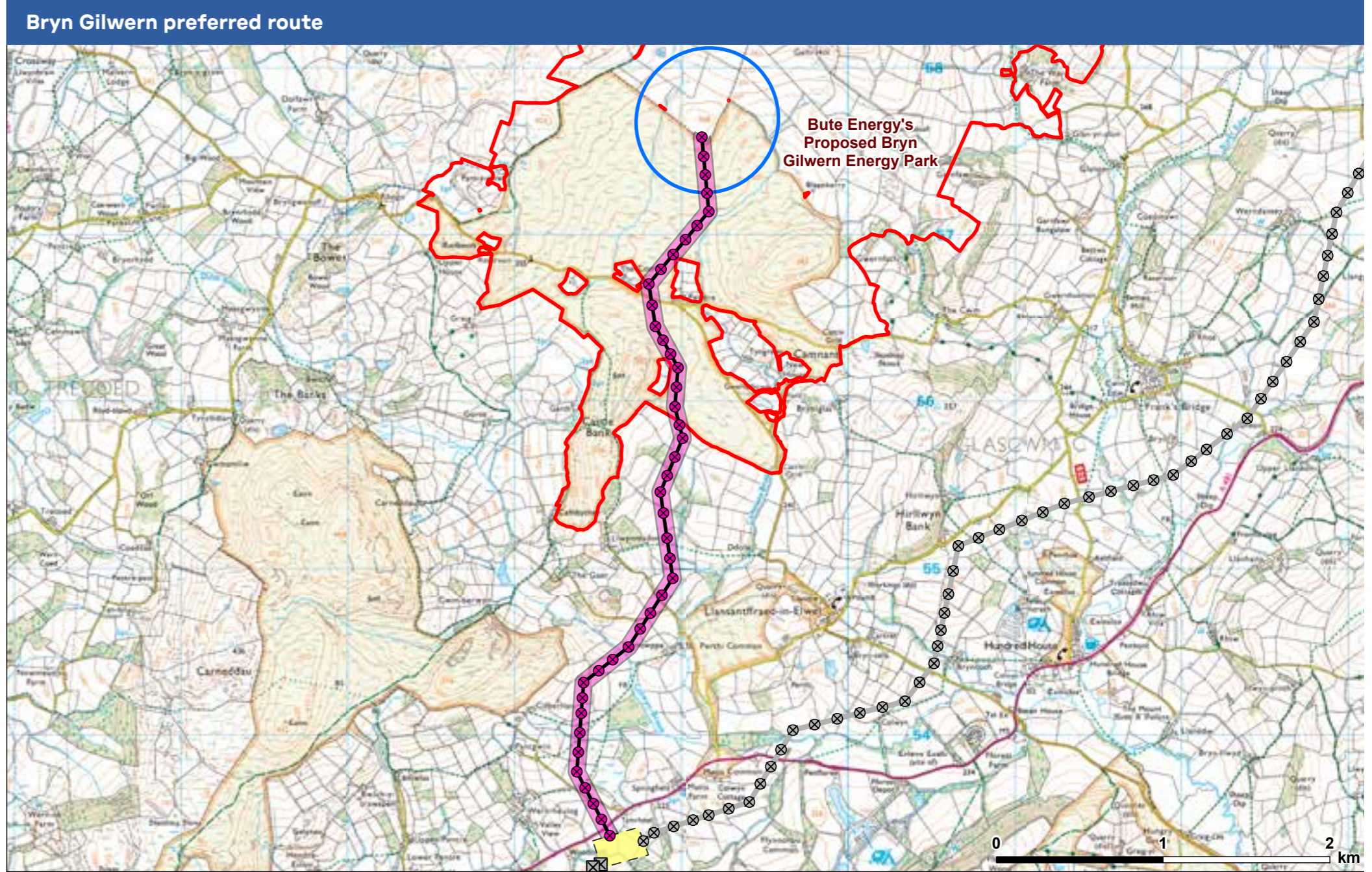
Our preferred route will start at the substation site for the proposed Bryn Gilwern Energy Park, in Powys. The route then heads towards the A481 before crossing it to connect into the proposed switching station, located at the foot of Aberedw Hill, north-east of Builth Wells.

The preferred route, approximately 5 kilometres in length, is the shortest route option, and likely to have the least impact on the landscape and visual amenity, and avoids impacts on forestry, woodland, and flood risk.

However, effects on the setting of the Castle Bank Hillfort, Court Stone Row and its interrelated Court Standing Stone (which are scheduled monuments), and reducing potential effects on common land will form a key consideration at the detailed pole siting stage.

Key

- Preferred Bryn Gilwern Route Option
- Preferred Bryn Gilwern Route Option Indicative Alignment
- Preferred Bryn Gilwern Route Option Wood Pole Position
- Bute Energy's Indicative Proposed Bryn Gilwern Energy Park substation location
- Bute Energy's Proposed Bryn Gilwern Energy Park
- X
 Proposed Towy Usk Draft Alignment - March / April 2024
- Indicative Towy Usk switching station location



More information

For more detailed information on the route options we considered and how we identified the preferred route, please read the Routing Alignment Report on our website: greengenbryngilwern.com

Aberedw preferred route

Our preferred route explained

The preferred route will start at the site for the substation for the proposed Aberedw Energy Park, located approximately 3 kilometres east of Built Wells in Powys. The route, just over 1 kilometre in length, descends from the top of Aberedw Hill in the direction of the A481, and will connect into the proposed new switching station, at the foot of Aberedw Hill.

Aberedw Hill is a prominent feature in this area, and in terms of landscape and visual amenity, all route options are considered to be equally balanced.

Of the route options we considered, the preferred route was carefully selected as it is the shortest route and it limits interactions with floodplains, peat, and private water supplies.

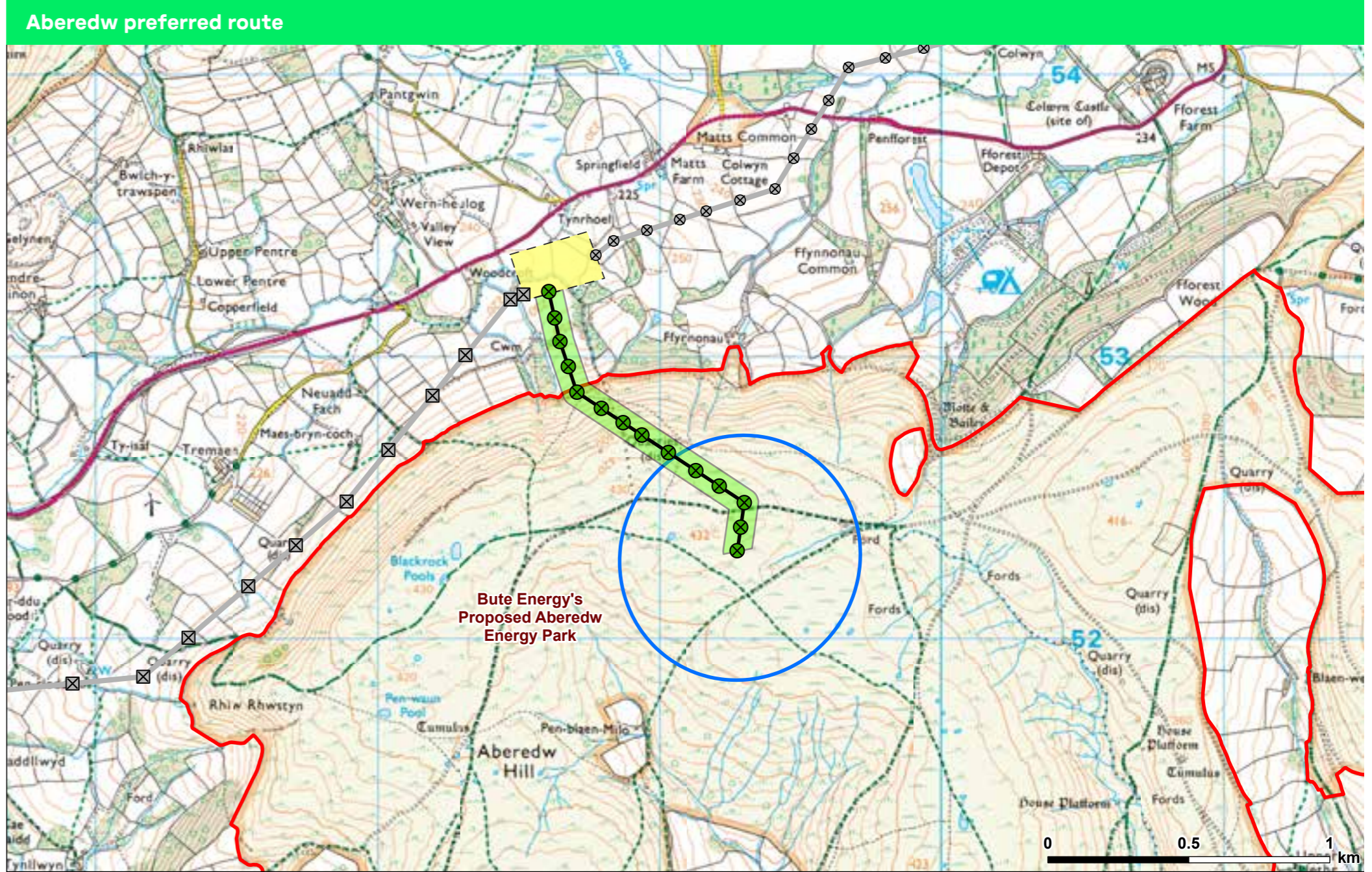
The preferred route avoids woodland and designated cultural heritage assets.

Key

- Preferred Aberedw Route Option
- Preferred Aberedw Route Option Indicative Alignment
- Preferred Aberedw Route Option Wood Pole Position
- Bute Energy's Indicative Proposed Aberedw Energy Park substation location
- Bute Energy's Proposed Aberedw Energy Park
- Proposed Towy Usk Draft Alignment - March / April 2024
- Indicative Towy Usk switching station location

More information

For more detailed information on the route options we considered and how we identified the preferred route, please read the Routing Alignment Report on our website: greengenaberedw.com



Switching station

The proposed switching station, located near the A481 at the foot of Aberedw Hill, will be similar in appearance to an electrical substation, such as the existing Builth Wells substation pictured shown on the opposite page.

The switching station site will be approximately 75 metres by 85 metres in size to accommodate the electrical equipment needed. The site will need to be larger than this, as the site will also need access roads, fencing and landscaping.

The proposed site has good access from the main A481 road, it is relatively flat, and it does not have any environmental designations.

The switching station will also be a connection point for Bute Energy's proposed Nant Mithil Energy Park (to be connected by the proposed Green GEN Towy Usk 132kV grid connection project).

This allows us to connect three proposed overhead lines in one place, reducing the amount of infrastructure overall.

The plans for the switching station are being developed and will be included in the DNS application for the Green GEN Towy Usk grid connection project.

 **Find out more**

To find out more about the switching station, visit: greengentowyusk.com

Below is an image of the existing substation at Builth Wells, indicating the type of development for the proposed switching station.



Our consultation

From **Wednesday 11 September to Wednesday 23 October**, we are holding our non-statutory consultation for the Bryn Gilwern and Aberedw Grid Connections projects. We're consulting on both projects at the same time, and we'd like to hear your views.

What are we consulting on?

- The preferred route, and draft alignment including indicative wood pole positions for both the Bryn Gilwern and Aberedw Grid Connections.

We are asking for feedback on:

- Our preferred route, and draft alignment including indicative wood pole positions for the two new overhead lines
- Any factors you think we should consider when developing our proposals for the two projects
- Any factors you feel have not been considered in our work to date.

How will your feedback influence the projects?

We are keen to hear from local communities. Your feedback can help us better understand any potential effects of our proposals and is a key part of how we'll develop the two projects in response to local needs.

Find out more

Supporting documents

We have published the following documents for the consultation.

- Grid Connection Strategy
- Routeing Alignment Reports
- Approach to Routeing Document

They can be viewed in the documents section on the project websites.



How to get involved

There are various ways to get involved in our consultation and provide your feedback.

Find out more at our community events

We've arranged three community drop-in events during September 2024.

Come along and find out more about our proposals, see a computer visualisation of the preferred routes, and meet the project team and ask any questions.

Event timetable

Location	Date	Time
Howey Village Hall Howey, Llandrindod Wells LD1 5PT	Thursday 26 September	2pm - 7pm
Hundred House Village Hall Llandrindod Wells LD1 5RY	Friday 27 September	2pm - 7pm
Aberedw Church Hall Aberedw, Builth Wells LD2 3UH	Saturday 28 September	10.30am- 3.30pm

Please submit your feedback to us by 23:59 on Wednesday 23 October 2024.

Any feedback received after this date may not be considered by our team.



HOW TO PROVIDE YOUR FEEDBACK

There are various ways to get involved in our consultation. You can find more information and ways to provide your feedback on our project websites:

Bryn Gilwern Grid Connection

-  greengenbryngilwern.com
-  **FREEPOST GREEN GEN BRYN GILWERN**
-  info@greengenbryngilwern.com
-  **0800 0129 884**

Or scan the QR code



Aberedw Grid Connection

-  greengenaberedw.com
-  **FREEPOST GREEN GEN ABEREDW**
-  info@greengenaberedw.com
-  **0800 0129 884**

Or scan the QR code



What happens next?

Engagement and consultation with local communities and others is an important part of the planning process.

All the feedback we receive from this non-statutory consultation will be carefully considered as we develop our plans, alongside the findings of technical assessments and environmental surveys, and feedback from specialist organisations. These organisations, such as Natural Resources Wales (NRW), will review the decisions we've made to date and provide advice to inform our work.

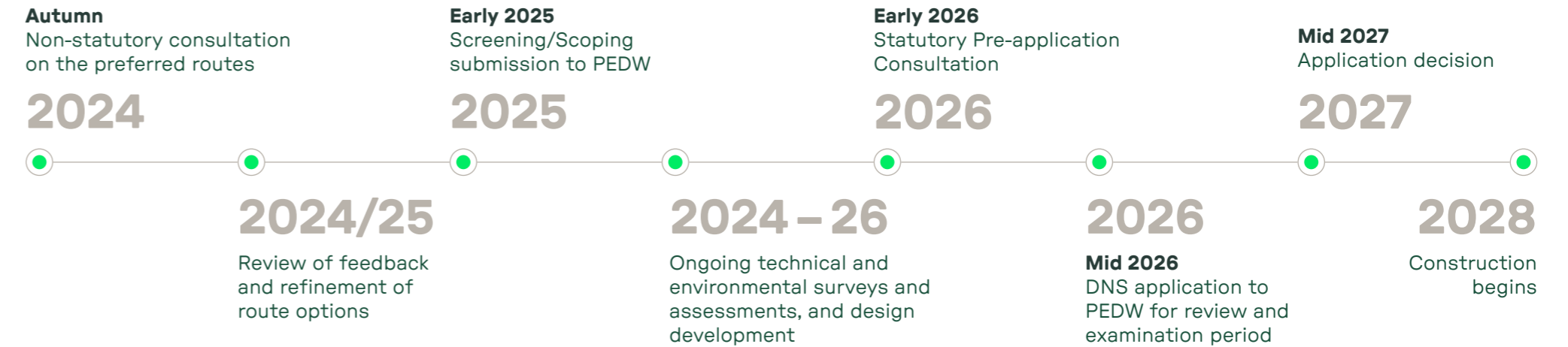
Our next steps will be to develop a more detailed design and alignment for the two new overhead line connections, including finalising locations for the wood poles and any temporary infrastructure that may be required, such as access roads and construction lay-down areas.

We will then carry out detailed technical and environmental studies and hold a statutory public consultation, planned in 2026. We will publish a report summarising the feedback from the non-statutory consultation and how this has influenced our proposals. This will support the next public consultation, when people can provide input on the detailed route alignment, including locations for the wooden poles, access routes and working areas.

Once our proposals have been finalised, we will submit two separate applications for consent to Planning and Environment Decisions Wales (PEDW) – one for the [Bryn Gilwern connection](#) and one for the [Aberedw connection](#).



Project timeline



Engaging with landowners and occupiers

Green GEN Cymru is committed to building strong working relationships with landowners and occupiers as we develop our proposals for the Bryn Gilwern and Aberedw connections. We will work with you as we develop our plans, and we encourage you and/or your representatives to contact us if you have any questions.

When planning and developing our projects, we need to carry out surveys to help inform both the scheme's design and the detailed environmental studies.

We need to survey a wide area to ensure we understand the local environment, how it might be affected by our work and any mitigation required.

The results of the surveys will help inform decisions on the routeing and siting of the Bryn Gilwern and Aberedw connections. Some surveys, such as those of birds or bats, need to be carried out at specific times of the year to provide information on nesting or habitat usage.

We will work closely with landowners and occupiers to agree access so that surveys are carried out, wherever possible, at appropriate times and with as little inconvenience as possible.

Allowing Green GEN Cymru access to land for surveys does not stop landowners taking part in the consultation and commenting about the Bryn Gilwern and Aberedw connection projects at any time.

If you are a landowner and would like further information, please don't hesitate to get in touch.

Find out more

Landowners documents

[Environmental and Engineering Surveys leaflet](#)

[Landowner Payments for New Electricity Infrastructure leaflet](#)

You can view these documents on the project websites.



Installing overhead lines

Overhead lines supported on wood poles are relatively straight forward to construct. We will follow established procedures throughout the construction process, carefully working to reduce potential disturbance to local people wherever possible.

Building overhead lines on wood poles

Site set-up and temporary construction compounds

We will need to create temporary construction compound at points along each route, for deliveries, storage of materials, office space, welfare facilities and vehicle parking.

The compounds will be at strategic positions, ideally near major roads to minimise disturbance to local communities. They will be removed following construction, and the land returned to its original condition.

Construction of an overhead line begins with creating a temporary access track to the wood pole sites, fencing off a safe working area, clearing vegetation and carrying out any drainage works required.



Foundations

Excavators then dig a foundation at each H-pole location. The poles are lifted into place and then backfilled with soil ready for re-seeding.

Installing wood poles

The poles are usually put in place using a hiab wagon (crane lorry), though some sites may require using a mobile crane. Specialist installation methods may be required for certain conditions, such as steep terrain.

Attaching the wires

Once the wood poles are erected, we hang the wires (conductors) that carry the electricity – a process known as ‘stringing’. We string a section of wood poles at a time.

We may need to erect temporary scaffolding and netting where the route crosses areas such as roads, rivers, during the stringing. We may need to close some roads for short periods or use traffic lights or ‘Stop and Go’ boards when during this work.

Running blocks are then fitted to the insulators and the conductors are pulled through by a winch machine. There will be temporary ‘pulling areas’ along the route. The most appropriate solution for each location will be determined as the project develops further.



Bryn Gilwern Grid Connection



Website
greengenbryngilwern.com



Call the freephone information number
0800 0129 884 (Monday-Friday, 9am-5pm)



Email queries or feedback to
info@greengenbryngilwern.com



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