GREEN GEN CYMRU VYRNWY FRANKTON

Statutory consultation brochure

Connecting renewable energy to homes and businesses

GREEN GEN CYMRU

Contents

Introduction

Green GEN Cymru are proposing a new 132 kV connection to connect energy parks in Mid Wales to the national electricity network.

The Vyrnwy Frankton project includes Grug y Mynydd collector substation near Cefn Coch in Powys, approximately 4.8km of underground cable and a sealing end compound, approximately 45km new of overhead line and a switching station to connect to the national electricity network near to Lower Frankton, Shropshire.

This new connection is needed to add capacity to the local network, providing the necessary infrastructure to connect renewable energy to homes and businesses. It could also help support the widespread rollout of electric heating and vehicles, helping to address the climate emergency.

The design of the connection has been influenced by feedback from local communities and stakeholders to our first consultation in 2023, input from specialist consultees, environmental assessments and technical requirements.

The design of the connection is still open to influence – we're asking for feedback so we can continue to look at ways to keep effects as low we can.

Our consultation runs from 19 February to 16 April 2025.

This is a statutory consultation – we anticipate it will be our last route-wide consultation on the project. It's important you take part if there is information you want us to consider.

In this brochure you can find out how we have considered feedback when developing a route alignment for the new connection, and how you share your feedback to further shape the proposals.

We look forward to receiving your comments.

About us

Green GEN Cymru are working to develop a stronger, more resilient electricity network – distributing clean, green energy to our homes, hospitals, schools, businesses, and communities.

As an Independent Distribution Network Operator (IDNO), Green GEN Cymru's proposed network looks to unlock our country's energy potential and support, accelerate and enable the country's net zero transition. New grid infrastructure is also needed to strengthen energy resilience, add capacity to local networks, and help pave the way for the widespread rollout of green heating and electric vehicles.

The IDNO licence enables us to operate electricity distribution networks, supporting the growing demand for renewable energy in Wales and England, nationally and locally. This allows users such as businesses and public buildings to directly benefit from energy generated locally. New energy generators can also connect to the grid via Green GEN Cymru's network.

We're playing a pivotal role in developing a robust and reliable distribution network that can help tackle the energy and climate crisis, as well as the cost-of-living crisis, empowering rural communities through reducing the pressure on the existing grid.

We are committed to working closely with local communities and stakeholders as we develop our plans, to maximise the benefits and minimise the impacts for local people.

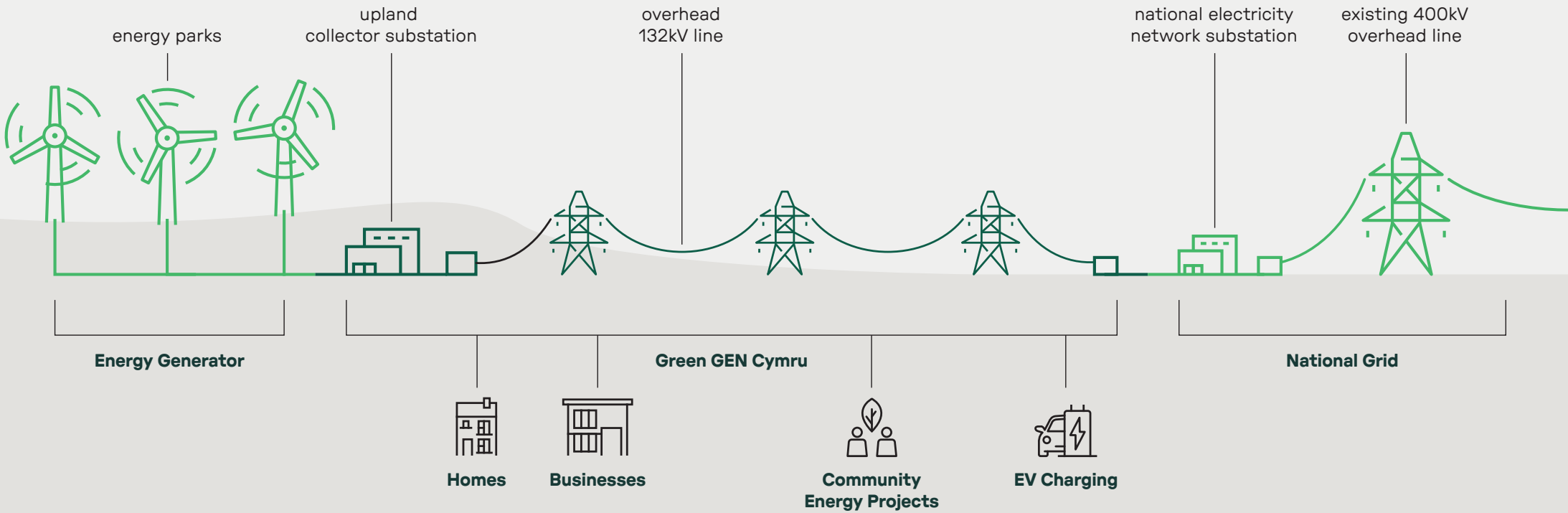
Adding needed grid capacity means:

Increasing renewable generation, reducing use of fossil fuels

New grid infrastructure to connect electricity to homes and businesses

Acting now to tackle the climate emergency

A typical 132kV connection on steel lattice pylons.



A new grid network to support resilience, local investment and address the climate emergency

Climate change is already threatening our livelihoods, landscapes and wildlife.

The challenges of climate change are well recognised by the UK and Welsh Governments, and the local authorities in Powys and Shropshire. Both councils report that the effects of climate change are already being seen in the counties.

Addressing the climate emergency requires urgent action from us all. From government, local authorities, communities, and investors who will provide the infrastructure and services to reduce emissions.

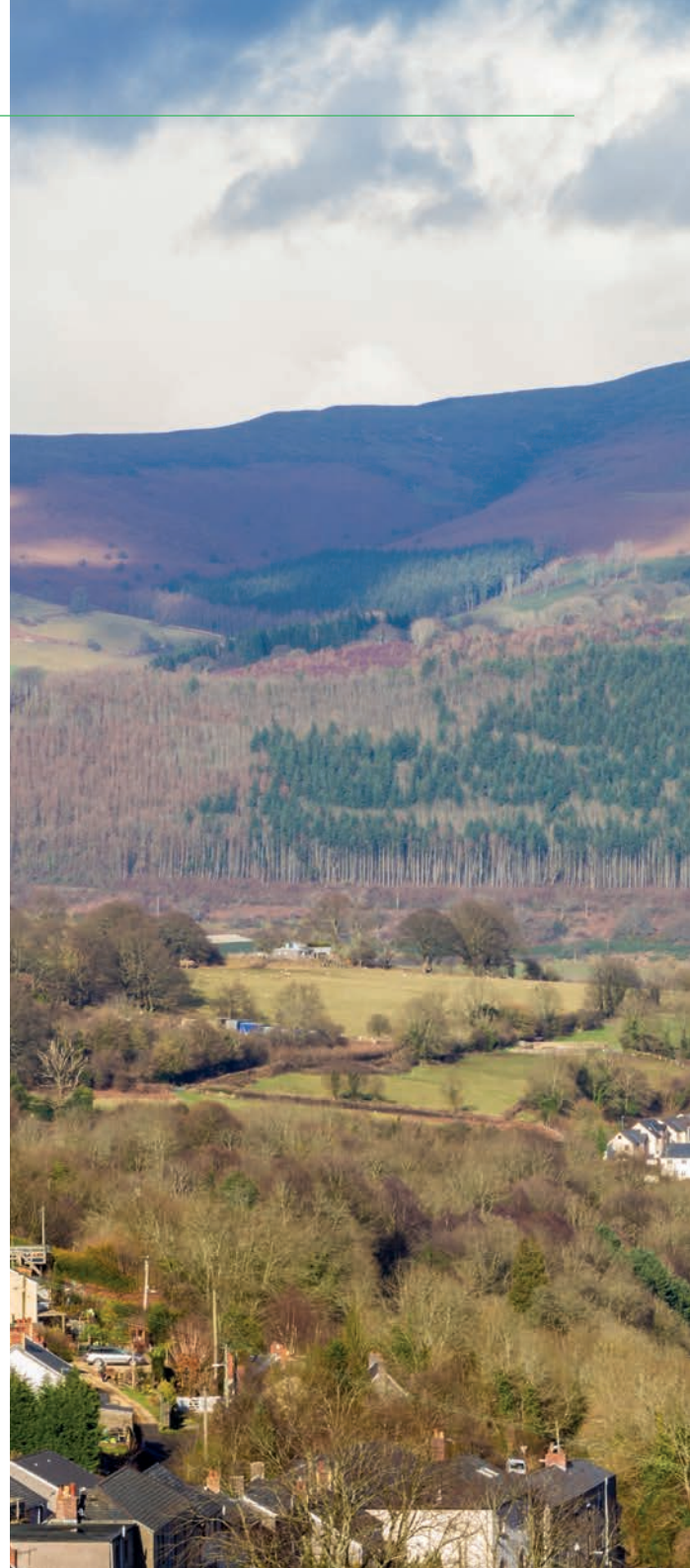
The Welsh Government have set a target to meet the equivalent of 100% of Welsh electricity needs from renewable sources by 2035. The UK Government is committed to doubling onshore wind capacity by 2030.

At the same time, demand for electricity consumption will increase significantly as the nation uses electricity for industrial processes, to heat homes and buildings, and to charge domestic and commercial vehicles. We need renewable energy quickly and efficiently to meet this demand.

One of the barriers to connecting new renewable energy is the lack of suitable grid infrastructure. To combat the climate crisis, we need to connect clean energy quickly and efficiently.

Green GEN Cymru is developing new grid infrastructure to unlock renewable energy and connect it to homes, schools, hospitals and businesses.

In Powys and Shropshire, the new connection could also become part of a more resilient network for the region – creating capacity to support local investment and providing for a future in which we all use more electricity. It has the potential to create new skills and jobs, nationally and locally. It will support the adoption of low carbon technologies in our homes and businesses, such as electric heating and charging points for domestic and agricultural vehicles.



**Powys County Council -
A Strategy for Climate Change -
Net positive Powys 2021-2030**

"We are facing a climate emergency. As a Council we need to act now to reduce direct and indirect carbon emissions to net zero. We also need to prepare and adapt to deal with the future impacts of climate change by ensuring that as a County, we become climate resilient. To achieve this, over the next decade, we will radically rethink how we live, work, learn, play and invest in the county. We also need action, not only on a local level but regionally, nationally, and internationally."

**Mid Wales
Energy Strategy.**

"Our vision for Mid Wales is: To achieve a net zero-carbon energy system that delivers social and economic benefits, eliminates fuel poverty, better connects Mid Wales to the rest of the UK, and contributes to wider UK decarbonisation."

Why the connection is needed

Tackling the climate emergency, connecting new renewable developments, expanding businesses and supporting the electrification of our heating and transport systems will require more grid capacity. These are challenges that we face, ones that need to be tackled urgently and ones that Green GEN Cymru are trying to help address.

New renewable energy developments are proposed in Mid Wales, but the existing electricity network in Powys and Shropshire does not have the capacity to connect them.

As an Independent Distribution Network Operator, Green GEN Cymru's role is to provide a connection for energy generators and users.

Without a connection, the renewable energy generated by the energy parks could not be made available to communities and businesses, nationally and locally.

If we do not upgrade the electricity network quickly, we risk missing renewable targets and failing to address the climate emergency.

Our proposals in Powys and Shropshire

The Project comprises:

- A new 132 kV collector substation near Cefn Coch, Powys, known as the Grug y Mynydd substation
- Approximately 4.8km of underground cable from Grug y Mynydd substation through the proposed Llyn Lort Energy Park to a cable sealing end compound at Cors y Carreg
- The Cors y Carreg cable sealing end compound would enable the transition between underground cables and overhead conductors

- Approximately 45km of new overhead line supported on L7(c) steel lattice pylons (average height of 28.5m) from Cors y Carreg sealing end compound to a new switching station
- A switching station near Lower Frankton, Shropshire which allows the power to be isolated from a proposed new substation being developed by National Grid to connect to the existing 400kV national electricity transmission system
- Land which will be required for environmental mitigation, compensation, and enhancement measures

As well as the permanent infrastructure, land would also be required temporarily for construction activities including, for example, working areas for construction equipment and machinery, site offices, welfare, storage and temporary construction access.

Third party utilities diversions and/or modifications would also be required to facilitate the construction of the Project.

The design includes pylons with an average height of 28.5m with the four legs the maximum footprint would be 12.5 x 12.5m. These are the smallest pylons available to us to carry the amount of power being generated. They are shorter and less bulky than the previous connection proposed by National Grid in 2014.

Along with connecting renewable energy quickly and efficiently to the grid, our project could also contribute to a more resilient and reliable network for the region. By adding additional capacity the Vyrnwy Frankton project opens the potential for business investment in the area, supporting the creation of jobs and skills.

National Grid has worked with us to identify an area where they could build a new 400 kV substation that would facilitate our grid connection. Within the area identified, we anticipate National Grid developing plans for the proposed 400 kV substation, and separately, we will develop a 132 kV switching station.

We have considered this area when designing for the route alignment for connection and in the preliminary environmental assessment. National Grid will be developing its plans for the substation, including any requirements for consultation and assessment separately to Green GEN Cymru.

For more information about National Grid's project, visit: **nationalgrid.com/lower-frankton**

More information

Find out more about the route alignment from page 14 onwards

The planning process

New high voltage electricity lines longer than 2km, partly or wholly in England, are classified as a Nationally Significant Infrastructure Project (NSIP) under the Planning Act 2008.

This process requires that applications for development consent are determined by the Secretary of State for Energy Security and Net Zero, rather than by the local planning authority (such as a county council). Developers of NSIPs require a Development Consent Order (DCO) before proposals can be built.

Based on our work and consultation to date, we anticipate the project will include an overhead line greater than 2km in length and we will therefore require a DCO.

When our proposals are finalised following consultation, we will make an application for a DCO to the Planning Inspectorate. The Planning Inspectorate will appoint an Examining Authority to examine the DCO application and make a recommendation to the relevant Secretary of State with responsibility for deciding the application. For our project this would be the Secretary of State for Energy Security and Net Zero.

The DCO application will be determined in accordance with National Policy Statements (NPSs) which set out the UK government's objectives and policies for new NSIPs. There are two NPSs that are relevant to our work:

- EN-1 is the overarching statement that explains the need for new energy infrastructure; and
- EN-5 which focuses specifically on the development of nationally significant electricity network infrastructure.

A statutory consultation is a part of the process of obtaining a DCO for a Nationally Significant Infrastructure Project (NSIP). It is an opportunity for people to review and comment on detailed proposals for a DCO. The DCO application is considered by the Planning Inspectorate and makes a recommendation to the Secretary of State, who decides whether to grant development consent.

The planning process provides further opportunities for people to put their comments to the determining bodies so these can be considered alongside our applications.

Find out more

More information on the planning process for NSIPs can be found at: https://infrastructure.planninginspectorate.gov.uk/application-process/the-process/

Developing the route alignment

Your feedback

We held a non-statutory consultation in Autumn 2023. Since then we've reviewed what you said and the connection has been influenced by feedback from local communities and stakeholders, along with environmental studies and input from specialist consultees.

You told us about sites of cultural and historical significance in the area, particularly Mathrafal – we've moved the connection further away from this area.

We've carefully considered areas you said were important for tourism and recreation – the route is planned to keep effects on these as low we can, while balancing effects on landscape and the environment.

You wanted us to think about effects on communities – we have carefully considered views to and from villages in designing the connection.

As much as possible, we've used woodland and the natural shape of the landscape to help reduce potential visual effects for communities.

Find out more

View the full route alignment on pages 14 to 25

Other factors

In addition to the feedback received to date, we must also consider the following factors which influences the route alignment:

- **Landscape:** the setting of the landscape, including views to and from the area
- **Socio-economic factors:** including tourism and other activities, such as agriculture
- **Obligations & regulations:** national and regional planning guidance and law, which include statutory requirements placed on us in operating as an IDNO
- **Technical:** making sure the connection will operate safely and securely
- **Ecology:** such as important plant and animal species
- **Cultural heritage:** areas of historical significance, such as archaeological sites
- **Cost:** making sure the connection will be cost-effective to build and operate. In line with Ofgem's requirements to help keep consumer electricity bills as low as possible

The route alignment has been planned in great detail and is still open to change.

Find out more

Our website includes an interactive map and viewpoints images. See www.greengenvyrwyfrankton.com for details.

Route alignment overview

Following the first round of consultation we reviewed our preferred route based on the feedback received and our own further assessments.

The draft route alignment takes into account the feedback we received from communities and stakeholders, alongside consideration of biodiversity, landscape, views, cultural heritage, woodlands, flood risk, geology, soils, other land uses and technical needs.

Details of how we've responded to feedback is included in each section.

The more detailed design will give people a much better sense of what the connection could look like from where they live.

Our proposals also include the areas of land we would require to build the connection such as access roads and works compounds.

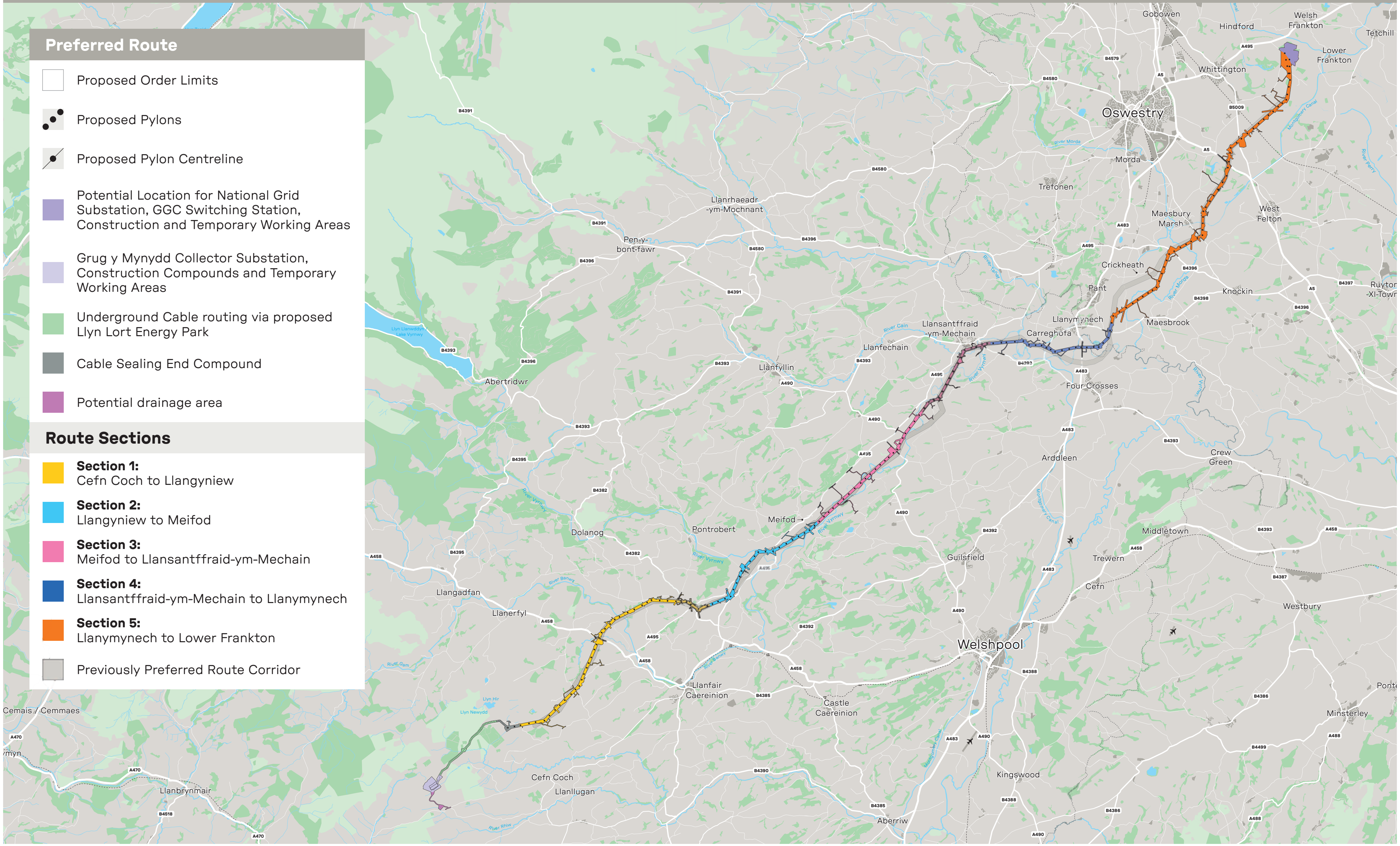
More information

We're asking for your comments on all of our proposals, including:

- Collector substation (Grug y Mynydd) near Cefn Coch
- Underground section through Llyn Lort energy park
- Cable sealing end compound (Cors y Carreg)
- Route alignment including pylon locations
- Connection with a proposed new National Grid
- Areas required for construction such as access roads and works compounds

See page 32 for details of how to provide feedback.

Overview


Preferred Route
Proposed Order Limits
Proposed Pylons
Proposed Pylon Centreline
Potential Location for National Grid Substation, GGC Switching Station, Construction and Temporary Working Areas
Grug y Mynydd Collector Substation, Construction Compounds and Temporary Working Areas
Underground Cable routing via proposed Llyn Lort Energy Park
Cable Sealing End Compound
Potential drainage area
Route Sections
Section 1: Cefn Coch to Llangyniew
Section 2: Llangyniew to Meifod
Section 3: Meifod to Llansantffraid-ym-Mechain
Section 4: Llansantffraid-ym-Mechain to Llanymynech
Section 5: Llanymynech to Lower Frankton
Previously Preferred Route Corridor
Gobowen
Hindford
Welsh Frankton
Tetchill
Lower Frankton
Whittington
Oswestry
Morda
Trefonen
Maesbury Marsh
West Felton
Llanrhaeadr -ym-Mochnant
Pen-y-bont-fawr
Crickheath
Pant
Knockin
Llanymynech
Maesbrook
Llansantffraid -ym-Mechain
Carreghofa
Llanfechain
Llanfyllin
Four Crosses
Abertridwr
Arddleen
Crew Green
Meifod
Pontrobert
Dolanog
Middletown
Guilsfield
Trewern
Cefn
Llangadfan
Llanerfyl
Westbury
Welshpool
Llanfair Caereinion
Castle Caereinion
Cemais / Cemmaes
Minsterley
Llanbrynmair
Cefn Coch
Llanllugan
Kingswood
Aberriw

Section 1: Cefn Coch to Llangyniew

(including collector substation and cable sealing end compound)

This area begins in a region of open upland and rolling farmland, before changing to the lower river valley landscape of the Banwy Valley. The Afon Banwy and the smaller Afon Einion flow within the valley and converge at Neuadd Bridge. There are other features within the valley landscape, including villages, holiday sites, infrastructure, and more trees compared to the upland areas. The alignment has been developed in consideration of all these features.

More information

View the route on our website

Your feedback in this area
In this area you said the valley landscape should be considered carefully and also that area is important for wildlife, such as bats and birds.

You asked we continue to consider ancient woodland in the area, and think carefully about the setting of properties and holiday businesses throughout this area.

People also noted Natural Resources Wales' proposals to designate a new National Park in Wales based on the existing Clwydian Range and Dee Valley National Landscape, and asked if this would be considered in developing the connection.

Collector substation and cable sealing end compound
In response to further surveys and more detailed design work since the non statutory consultation Green GEN Cymru has identified a smaller area for the collector substation within the broader siting area. The area identified is within a landscape where there are already wind turbines and it is potentially more accessible than other parts of the search area. The area is also sufficient to allow for construction of the substation and provide opportunities for landscape and biodiversity mitigation.

Route alignment
The alignment has been developed within the previously identified route which had already considered opportunities for keeping effects as low as possible on individual properties, valley views and caravan parks.

The alignment is in a series of straight sections, which reduced the need for 'angle towers'. Angle towers are pylons used when a connection changes direction and are typically more bulky than standard pylons as they are under greater tension from the wires being carried.

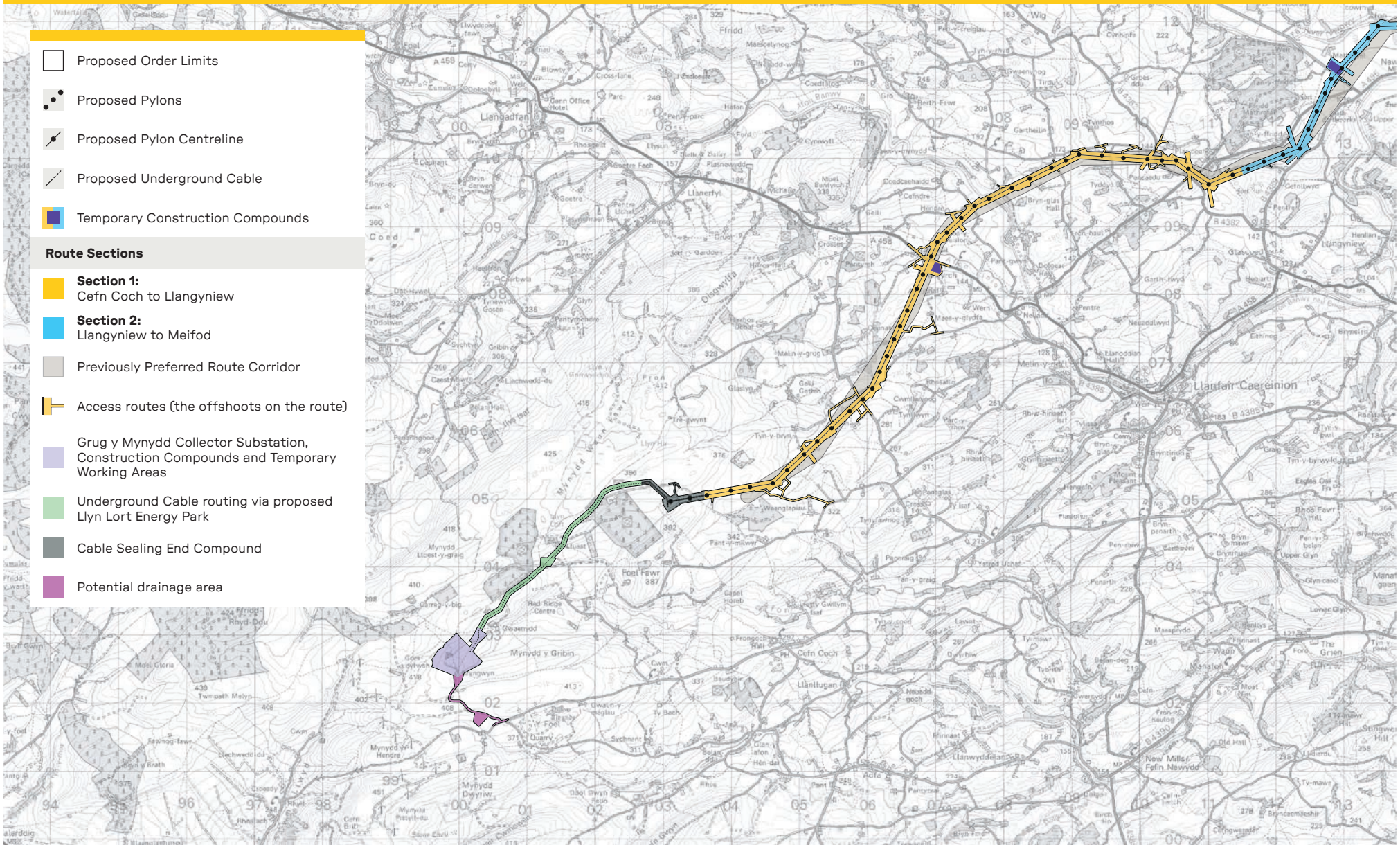
Direction changes make use of landscape and woodland to reduce potential visual effects of the line. Pylon locations have also been chosen to limit effects on river and road crossings in this area, as well as properties and business, as much as possible. Interactions with existing 11kV wood pole electricity lines have also been carefully considered.

To the area west of the A458, the alignment has been developed to use trees to help screen or provide a background of the connection. The caravan parks here have been carefully considered in the routeing, while balancing the potential effects on the ancient woodland near to Afon Einion.

Other environmental features – such as wildlife and heritage – have also been considered in the proposed locations for pylons and laydown areas needed during construction.

We are aware that Natural Resources Wales is consulting on proposals to designate a new National Park in Wales based on the existing Clwydian Range and Dee Valley National Park. An area of search has been identified which extends close to a section of the Vyrnwy Valley. National Parks and their settings are important considerations in the routeing of overhead lines. As the proposal for the North East Wales National Park is still in progress it's too early to know if this will have an influence on our proposals. We will continue to monitor the progress of the proposals and engage with Natural Resources Wales on this matter.

Section 1: Cefn Coch to Llangyniew



Section 2:
Llangyniew to Meifod

This area changes from the rolling areas of woodland within the wider Banwy Valley towards the narrower but more visually open, and more steeply sided Vyrnwy Valley, with the Afon Vyrnwy meandering along the valley floor. Alongside the villages of Llangyniew and Meifod, there are holiday sites within the area. Mathrafal is a well recognised heritage site, and there are ecologically important areas dotted throughout the landscape. The alignment has been developed in consideration of all these features.

More information

View the route on our website

Your feedback in this area
Your feedback highlighted Mathrafal noting its historical importance and Mathrafal Farm, as a site for the National Eisteddfod. Both are considered important to the area.

You also provided comments about the Meifod Valley setting, where the valley is flat and where the Afon Vyrnwy and Afon Banwy come together. This was considered a great visual amenity for the area.

Meifod village and the listed buildings in and around the area, including the church were also raised as important. This area was also noted for recreation including Glyndwr's Way and the Cobra Rugby Club. Ancient woodland, and wildlife including bats were also points you said we should consider. The movement of the river and the potential for flooding was also raised and you wanted us to take this into account.

Feedback also noted that National Grid had previously proposed undergrounding in this area. You wanted us to consider this, or think carefully about the siting of pylons to minimise effects on the features you said were important.

People also noted Natural Resources Wales' proposals to designate a new National Park in Wales based on the existing Clwydian Range and Dee Valley National Landscape, and asked if this would be considered in developing the connection.

Route alignment
The route here has been changed to be further away from Mathrafal heritage site and we have thought carefully about the position of pylons to keep visual effects as low as we can.

The alignment keeps to a series of straight lines, as much as possible, as this helps keep the number of pylons as low as possible. Pylon locations have been chosen to consider individual dwellings and buildings, the valley landscape, and the path of the river.

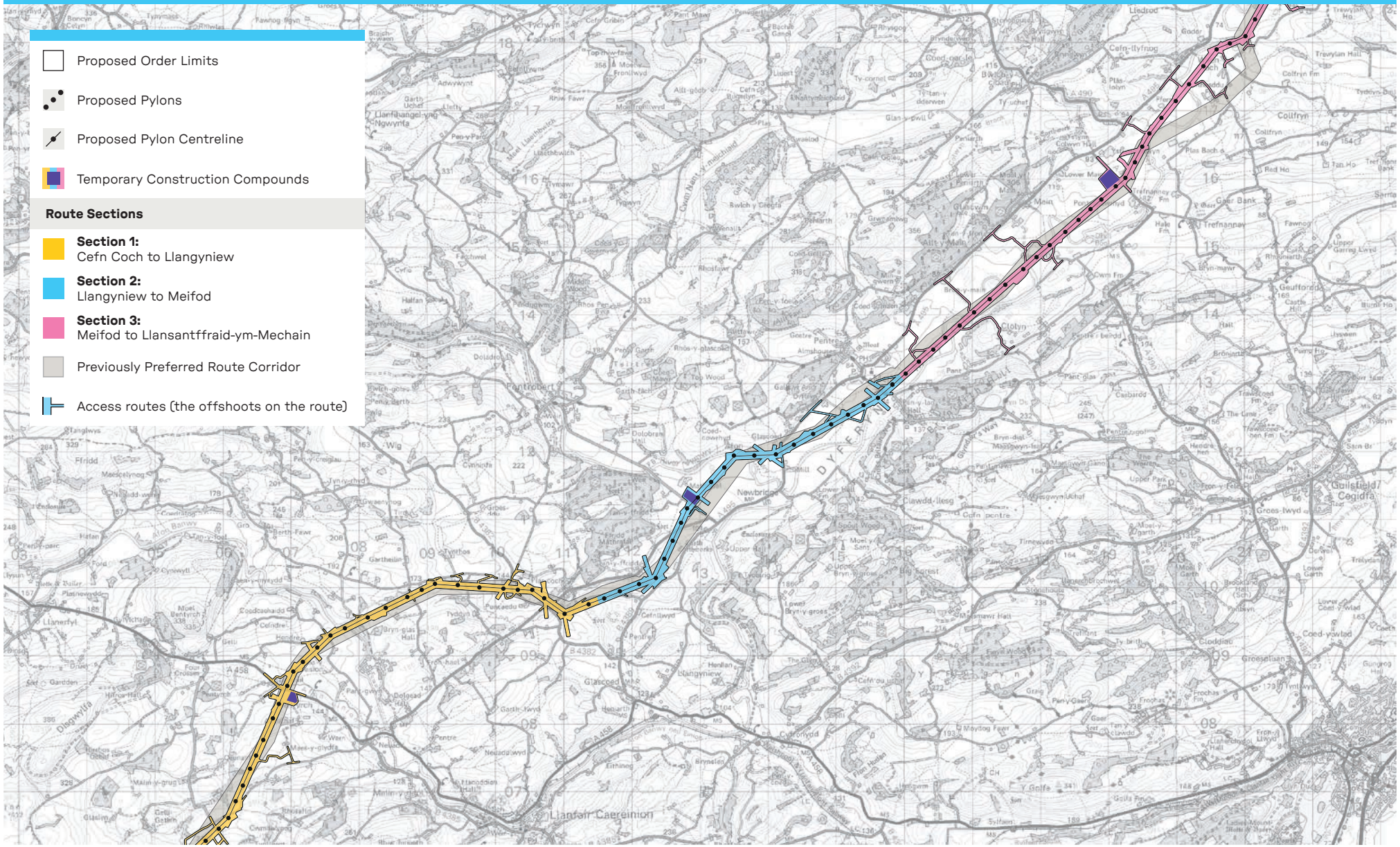
As the alignment passes near Meifod, we have routed south of the river, carefully considering the rugby club and the flood defences in this area. Views from Meifod village should see the pylons against the valley walls, helping to reduce potential visual effects.

National Grid's proposals were for a 400 kV connection which requires taller bulkier pylons than the pylons we are proposing. The assessment of visual effects led National Grid to propose a section of undergrounding.

We have also assessed the visual effects of the lattice pylons we propose to use on the landscape and local communities. Based on these assessments, we have concluded that an overhead line is in keeping with our duties to amenity and the environment, and the requirements of the relevant national policy statements which set out the government's position on new electricity networks.

We are aware that Natural Resources Wales is consulting on proposals to designate a new National Park in Wales based on the existing Clwydian Range and Dee Valley National Landscape. An area of search has been identified which extends close to a section of the Vyrnwy Valley. National Parks and their settings are important considerations in the routeing of overhead lines. As the proposal for the North East Wales National Park is still in progress it's too early to know if this will have an influence on our proposals. We will continue to monitor the progress of the proposals and engage with Natural Resources Wales on this matter.

Section 2: Llangyniew to Meifod



Section 3:
Meifod to Llansantffraid-ym-Mechain

This section of the route includes some historic sites, woodland and areas valued for biodiversity. Meifod and Llansantffraid are the most prominent communities with individual dwellings dotted throughout the area. The valley bottom is marked by the meandering path of the Afon Vyrnwy, and valley sides with some with steeper slopes and areas of woodland. To the north east of Meifod, the valley is quite wide and flat as it parallels the A495, before becoming more narrow and undulating near Waen Fach. The area near to Llansantffraid contains more settlements. The alignment has been developed in consideration of all these features.

More information

View the route on our website

Your feedback in this area
The setting of Llansantffraid was raised as important and you wanted us to consider carefully the location of pylons and their potential effects on views and individual properties.

The caravan parks near to Llansantffraid were noted as important to the local economy and you asked us to consider these. People also said areas of recreation, such as footpaths along the river valley, were well used and should be considered.

Farm operations and farm buildings along the path of the preferred route were highlighted and you said we should avoid disruption to these where we can.

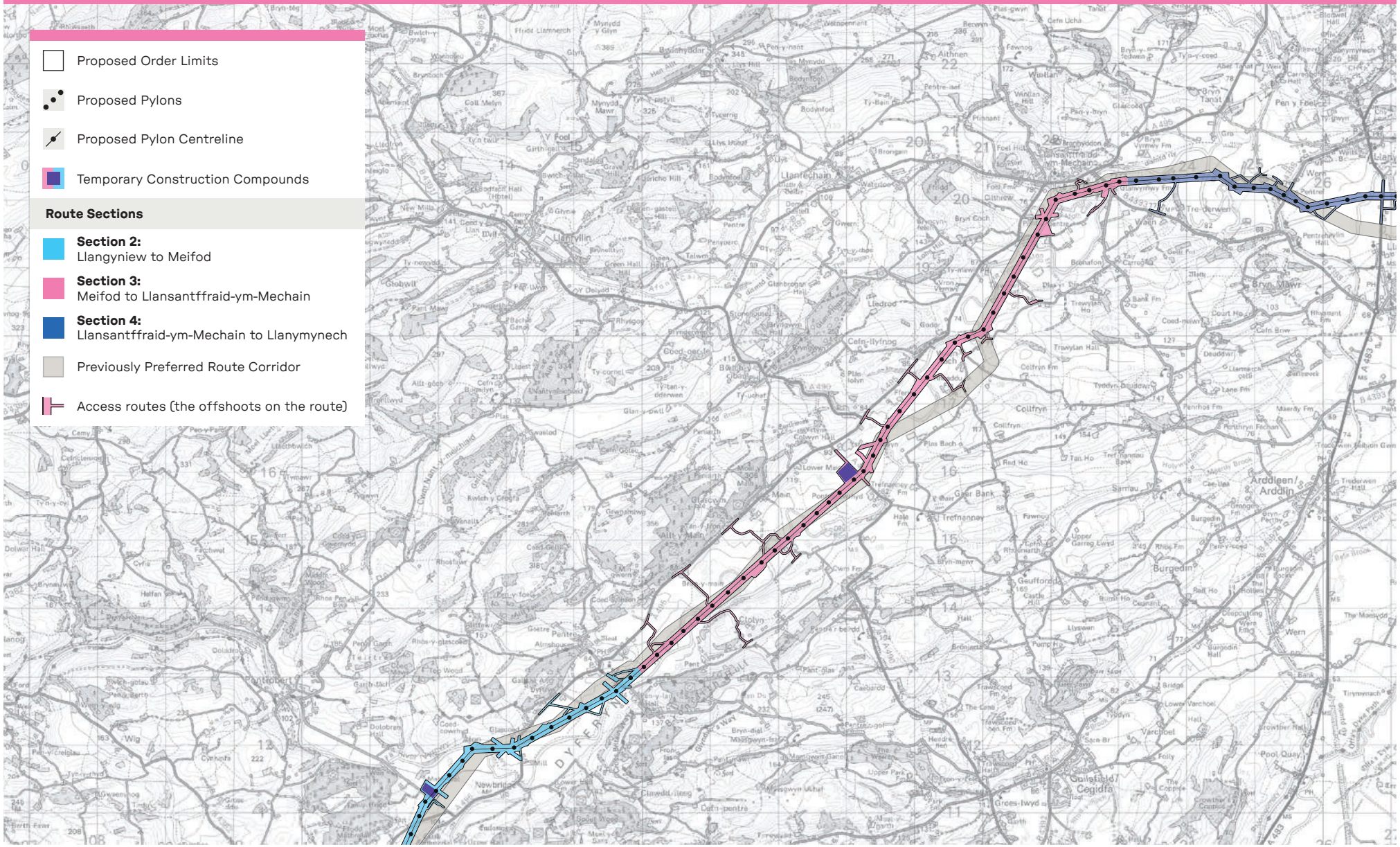
Route alignment
The route has been changed here to take a straighter alignment, moving it away from the farm operations raised in feedback and slightly closer to the A495.

The straighter route helps to reduce the number of pylons needed so it should be less visually intrusive. This alignment provides opportunities for using trees for screening or as background for pylons from properties in the area.

It also provides opportunities to manage potential visual effects on the heritage sites close by, including the hillfort at Bryngwyn Wood.

As the alignment approaches Llansantffraid, pylon locations have been planned to keep visual effects as low as we can on properties, while managing potential effects on the river and farm operations. Using straight alignments in the approach to and past the village continues with the aim of using as few pylons as possible. The alignment stays close to the commercial area to the south of the A495 with the aim of reducing effects on residential properties. As the alignment extends east, we have considered the setting of individual properties and the caravan parks using trees to offer screening, where possible.

Section 3: Meifod to Llansantffraid-ym-Mechain



Section 4:
Llansantffraid-ym-Mechain to Llanymynech

This area includes the villages of Llanymynech, Llandysilio and Four Crosses, some residential settlements, cultural heritage sites, and small blocks of ancient woodland. The river meanders across the valley floor and sites of interest for biodiversity occur along its banks. The Montgomery Canal here is a recognised recreation and heritage feature, with the Offa's Dyke Path also crossing through. There are established caravan parks along the Vyrnwy Valley. The alignment has been developed in consideration of all these features.

More information

View the route on our website

Your feedback in this area
You provided comments on the Montgomery Canal noting its value to recreation and because of it's environmental importance. You wanted us to consider the setting of the canal and the potential visual effects from an overhead line.

You told us that we should consider Llandysilio and the grade two listed church in the village, asking us to look carefully at potential effects on the setting of the village.

Potential effects on Llanymynech, Pant and Four Crosses and dispersed dwellings were also raised as important and you said we should do what we can to keep visual effects as low as possible.

The caravan parks east of Llansantffraid were also raised as important, along with footpaths in this area. It was noted that tourism is a key part of the local economy.

Route alignment
The route has been changed in this section reducing potential effects on the setting of Llandysilio, and the Church of St. Tysilio, and other listed buildings nearby.

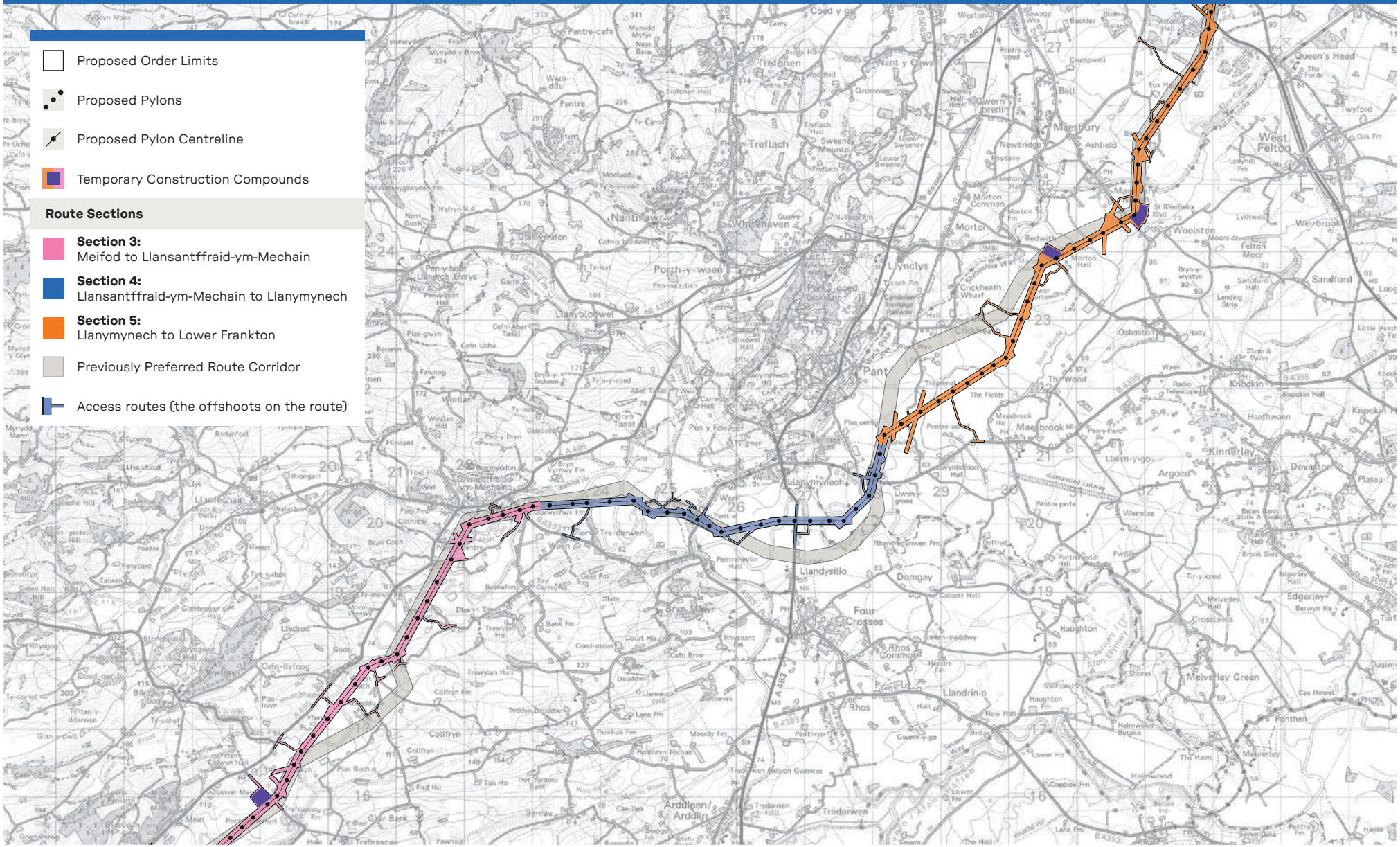
While this change brings the alignment closer to the Llanymynech Heritage Area including the canal, we consider there is sufficient distance between the alignment to the south and heritage area to the north, to maintain the setting.

The alignment in this section uses short sections of straight lines, helping to keep the number of pylons as low as possible, which reduces visual effects, while also seeking to avoid individual dwellings.

It crosses a less exposed section of the valley near to Carreghofa and north of the Montgomery Canal aqueduct, where existing woodland will provide some screening to minimise visual effects.

Pylon locations have been chosen to offer screening using trees, and considering the path of the river.

Section 4: Llansantffraid-ym-Mechain to Llanymynech



Section 5:
Llanymynech to Lower Frankton

In this area the landscape opens up to a wider and generally low-lying area, with trees, villages and individual dwellings dotted throughout. There are heritage features throughout including scheduled monuments, conservation areas, and listed buildings, and areas of historic parkland. The Midlands Mere and Mosses is recognised as an important wetland, with small areas of peatland also in the area. The alignment has been developed in consideration of all these features.

More information

View the route on our website

Your feedback in this area

You said the setting of the villages through this section should be carefully considered to reduce potential visual impacts. This included Pant, Crickheath, Maesbrook, and Maesbury Marsh. People considered there are options to route away from villages into open farmland. Potential effects on individual properties were also included in this feedback.

The path of the Montgomery Canal was also raised with it being noted that restoration works had made this a valued area for communities and visitors.

Wildlife throughout the area was also raised, including owls, kingfishers, otters and bats, and you asked us to consider effects on wildlife carefully.

You said we should also consider agriculture business and operations, thinking about the location of buildings, farm entrances, and other important aspects when planning the alignment.

People also wanted to know more about the location of the proposed National Grid substation and where this would be located.

Route alignment

We have updated the route in this section to be further away from Pant and Crickheath. While this may create some visibility of the connection from the higher ground of Llanymynech, we consider it will reduce potential visual effects on Pant and Crickheath and the Montgomery Canal.

The alignment in this section uses short sections of straight lines, helping to keep the number of pylons as low as possible, which reduces visual effects, while also seeking to avoid individual dwellings.

Throughout the alignment, we have sought to use existing trees to offer screening, where possible, while also considering agricultural operations.

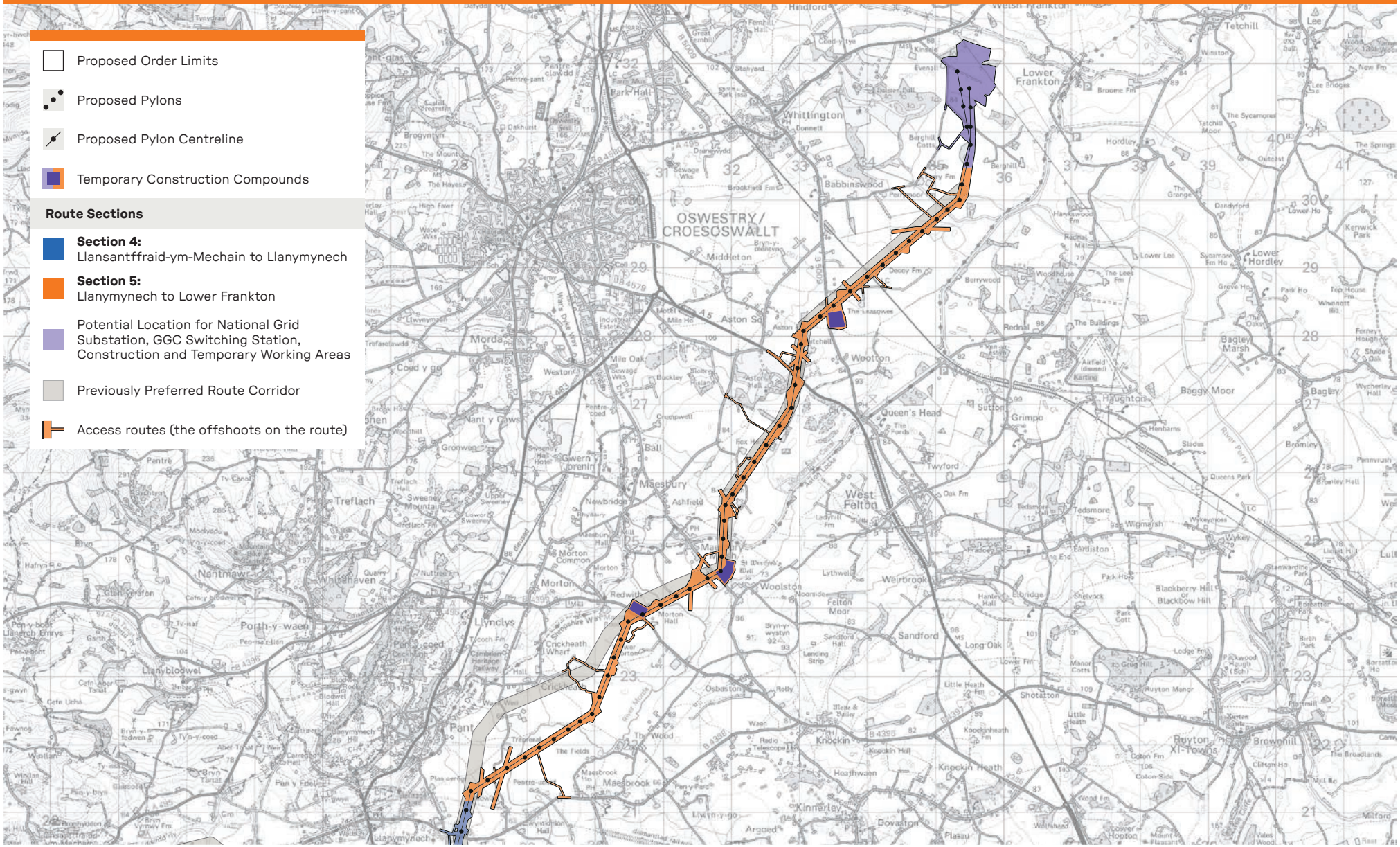
Connection to national electricity network

National Grid has worked with us to identify an area where they could build a new 400 kV substation that would facilitate our grid connection. Within the area identified, we anticipate National Grid developing plans for the proposed 400 kV substation, and separately, we will develop 132 kV switching station.

We have considered this area when designing for the route alignment for connection and in the preliminary environmental assessment. National Grid will be developing its plans for the substation, including any requirements for consultation and assessment separately to Green GEN Cymru.

For more information about National Grid's project, visit: **nationalgrid.com/lower-frankton**

Section 5: Llanymynech to Lower Frankton



Pylon design – what we're building

The pylons in the alignment we are proposing have an average height 28.5 metres. These are the smallest pylons available to us to carry the amount of power being generated.

When taking account of the local environment, such as the landscape, topography and woodland, and the policy requirements for overhead lines, we believe this pylon design offers the most appropriate solution.

Given the height and design of this pylon, trees and other landscape features would offer screening opportunities. Together with careful routeing, they offer opportunity to manage visual effects.

The current alignment provisionally includes 171 pylons.

Lattice pylon key features:

- Tried and tested technology that is seen in communities across the UK
- Designed to be seen through, helping to reduce visual effects
- Suitable for enclosed undulating landscapes as the hills would act as a backdrop, with less of the pylon seen above the skyline
- Capable of withstanding extreme weather conditions, such as high winds and ice formation on the conductors
- They exist in flood plains across the country and we will ensure that we use appropriate construction methods in these sensitive areas

Transport during construction
Most of the equipment we would need, including the components for the connection, cranes to build the connection, and all the materials for temporary work (such as works compounds and access roads), would be transported on conventional lorries. We'd also need vans and cars to take workers to and from site and anticipate needing some larger vehicles to carry equipment.

To identify transport routes, we've considered how we can best reduce effects on road users, including local people and tourists. We are proposing to use the A483 and A495 as they are the main roads closest to our work, as well as many of the smaller roads off the main roads, to access construction areas.

Building the connection
It will take approximately two years to build and test the connection, with additional time to reinstate the land and restore it to its previous use. At any one time, there are likely to be a number of working sections along the route.

Our work typically happens in phases. Each element of the project would be built following four main steps.

We would typically:

- Set up construction sites, by levelling the land and installing works compounds and access roads from a number of public roads
- Build the connection
- Test all the equipment ensuring it's constructed correctly before making it live at high voltage
- Clear and re-instate the land, and look to carry out additional planting to screen equipment where required

Construction

Our Equipment
Overhead line connections are made up of wires (known as conductors) supported by pylons. The line carries two electrical circuits one on each side of the pylons.

Setting up the Sites
- We will install temporary access roads to pylon locations along the route which could be made from stone or track-mats. We might need to make modifications to the existing roads, such as widening existing field entrances
- Install the works compounds, which would include facilities for workers, site offices, storage for materials and parking for workers and construction vehicles
- For safety, clear or trim trees that could interfere with live conductors

Construction
- Create a level surface for pylon construction sites
- Dig and build the foundations details
- Deliver pylon components and build the pylons using cranes
- Deliver insulators and conductors on drums

Post Construction
- Test equipment and make sure it's installed correctly and safely
- Reinstate the land used for our temporary works so it can return to its previous use and carry out any screening to reduce visual effects and replace habitat that may have been lost during construction if required

Grug y Mynydd Substation
The function of the substation is to 'collect' power from the proposed energy parks. The collector substation would also contain electrical switchgear, which allows us to maintain and operate the equipment safely and reliably.

The Grug y Mynydd Collector Substation would approximately be 250m x 150m and 13m in height with natural landscape planting to help screen the site.

Cable Sealing End Compound
The Cors y Carreg cable sealing end compound (CSEC) will be a maximum size of 80m x 50m and house high-voltage equipment designed to facilitate the transition between underground cables and overhead conductors. The compound will be enclosed by security fencing up to 4m in height to safeguard the equipment.

Vegetation within the working areas of the Cors y Carreg CSEC will be cleared where necessary, with fencing installed to delineate the site. The upper layers of soil will be stripped and stored appropriately. A permanent access road will connect the compound to the local road network, ensuring access for operational and maintenance activities.

Project Boundaries

When we submit our applications for consent, we will need to include all of the areas of land we require.

This will include permanent infrastructure, such as pylons. It will also include temporary work such as access roads, works compounds and construction sites around our infrastructure. This means not all the land included in our applications will have permanent infrastructure on it.

Due to the complex nature of our work, there are often many aspects which make up our application, including:

- Pylons
- Lay-down and working areas, including around each pylon
- Excavated spoil and locations for soil storage and disposal
- Cable sealing end compound, including gantries
- Any temporary works, including works compounds, ground levelling, fencing, scaffolding, cranes, marker posts and signage
- Temporary access roads from public tracks. They will be removed following construction and the land returned to its original condition
- Road modifications, traffic management, including road diversions and any temporary closures Permanent and temporary improvements to public roads
- Off-site planting and vegetation removal
- Utility diversions and drainage works
- Any environmental mitigation and protection measures
- Trees affected
- Lighting
- Monitoring equipment, including water quality monitoring

A boundary which has considered all of these various elements has been developed and shown on plans included in this consultation. This is typically referred to as a ‘proposed project boundary’ or ‘order limits’. It shows the entire area in which we are proposing to undertake work, both temporary and permanent.

The boundary is also required to include all the land over which access is required both for construction and operation of the connection.

As a result of the various elements we need to include, the proposed project boundary may appear irregular and, in some areas, extend farther from the planned locations of permanent equipment or connections. This boundary simply indicates the areas that might potentially be used, not that all elements within it will necessarily be used.

Providing feedback

Our proposals are still open to influence and we'd like your feedback so we can continue to look at ways to keep effects as low as we can. We are keen to understand if people have comments on the potential environmental effects of the proposals or ideas for mitigating these effects, and if you have comments on the potential benefits of the Project. Please tell us if there are changes you think we can make to improve the proposals or reduce impacts and, importantly, why.

We're asking for comments on all of our proposals, including:

- A new 132 kV collector substation near Cefn Coch, Powys, known as the Grug y Mynydd substation
- Approximately 4.8km of underground cable from Grug y Mynydd substation through the proposed Llyn Lort Energy Park to a cable sealing end compound at Cors y Carreg
- The Cors y Carreg cable sealing end compound would enable the transition between underground cables and overhead conductors
- Approximately 45km of new overhead line supported on L7(c) steel lattice pylons (average height of 28.5m) from Cors y Carreg sealing end compound to a new switching station
- A switching station near Lower Frankton, Shropshire which allows the power to be isolated from a proposed new substation being developed by National Grid to connect to the existing 400kV national electricity transmission system
- Land which will be required for environmental mitigation, compensation, and enhancement measures

As well as the permanent infrastructure, land would also be required temporarily for construction activities including, for example, working areas for construction equipment and machinery, site offices, welfare, storage and construction access.

Third party utilities diversions and/or modifications would also be required as part of the construction of the Project.

There are several ways to provide project feedback.

- Online feedback form on our website: **www.greengenvyrnwyfrankton.com**
- Hard copy feedback form, available at consultation events or on request
- Sending an email to: **info@greengenvyrnwyfrankton.com**
- Sending written feedback to: **FREEPOST GREEN GEN Cymru V2F**

We can only consider feedback about proposals, not wider themes such as energy generation or government policy.

Please provide feedback about our proposals only. The more detail you can provide, the better we can understand the potential impacts of our work.

Please submit your feedback to us by 23:59 on Wednesday 16 April 2025.

Any feedback received after this date may not be considered by our team. All the feedback we receive will be reviewed and carefully considered as we develop and submit our plans.

Consultation event locations	Date	Time
West Felton Village Hall, Holyhead Road, West Felton, Oswestry, Shropshire, SY11 4EH	Thursday 27 February	14:00 - 19:00
Hordley & Bagley Village Hall, Lower Hordley, Ellesmere, Shropshire, SY12 9BQ	Friday 28 February	14:00 - 19:00
Llanymynech Village Hall, Station Road, Llanymynech, Oswestry, Shropshire, SY22 6EE	Saturday 1 March	10:00 - 15:00
Llanfair Caereinion Public Hall and Institute, Bridge Street, Llanfair Caereinion, Welshpool, SY21 0RY	Thursday 6 March	14:00 - 19:00
Llansantffraid Community Centre, Treflan, Llansantffraid-Ym-Mechain, SY22 6AE	Friday 7 March	14:00 - 19:00
Meifod Village Hall Community Centre, Meifod, SY22 6DF	Saturday 8 March	10:00 - 15:00

Information to support the consultation

All documents for this consultation are available to view on our website: www.greengenvyrnwyfrankton.com

- Statement of Community Consultation
- 2023 Non-statutory Consultation Feedback Report
- Preliminary Environmental Information Report
- Preliminary Environmental Information Report – Appendices
- Preliminary Environmental Information Report – Figures
- Preliminary Environmental Information Report – Non-Technical Summary
- Location Plan
- Consultation Plans
- Typical Tower and Foundation Drawings
- Typical Layouts Construction
- Indicative Site Layouts
- Grid Connection Strategy Phase 3
- Route Alignment Document
- Guide to the Plans

What happens next

After the consultation, to progress towards our applications, we will:

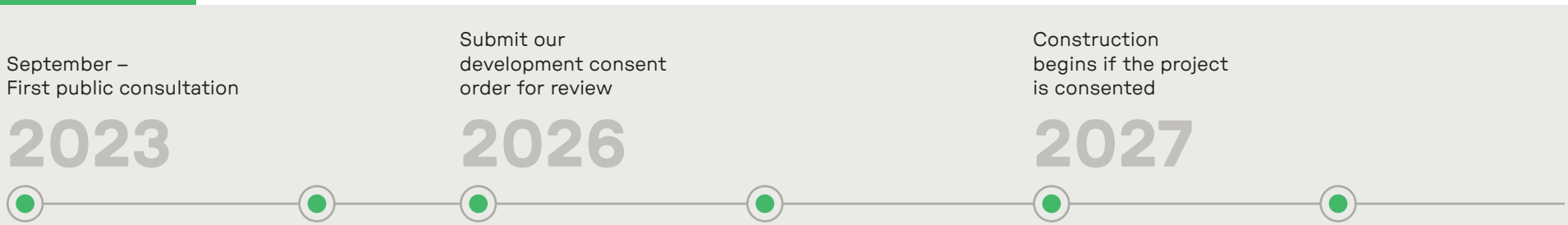
- Review our proposals in light of feedback received and our ongoing assessments to see if there are ways we can improve them
- Consider how the transport and construction work could be undertaken and look at opportunities to reduce the effects of this on the area, including properties, businesses and recreation. This would include how potential road closures could be best managed. We would always ensure properties can be accessed during construction
- Finalise requirements for tree and hedgerow trimming or clearance and how we would manage the effects of this, including reinstatement
- Consider the visual impact of the connection to establish what further mitigation measures may be needed, which may include landscaping or planting to screen equipment
- Look carefully at the likely environmental effects of the proposed connection and if any mitigation measures are needed

Our applications
When we're happy the proposals are ready, we'll prepare our applications and the supporting documents. This would include a Consultation Report, to explain how we've taken your views into account, and an Environmental Statement, to explain the likely environmental effects of our proposal. We'd then submit our applications to the relevant bodies.

At this stage, we anticipate the applications for the connection would be made to the Secretary of State for Energy and Net Zero via the Planning Inspectorate.

The planning process provides further opportunities for people to put their comments to the determining bodies so these can be considered alongside our applications. We will provide more information on the application process as our work progresses.

Project timeline



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We have used sustainable sources for the production of this brochure.