GREEN GEN CYMRU VYRNWY FRANKTON PROJECT

Frequently Asked Questions

Green GEN Cymru are proposing a new 132 kV connection to connect renewable energy in Mid Wales to the national electricity network. This will help build a stronger, more resilient electricity network that unlocks clean, renewable energy for our businesses, and communities.

This new connection could also help support the widespread rollout of electric heating and vehicles, helping to address the climate emergency.

We are committed to minimising any potential impacts on the local community and surrounding area.

Below you can find some frequently asked questions and answers on the project to provide further information on our proposals.

About Green GEN Cymru

Q **Who is Green Gen Cymru?**

A Green Generation Energy Networks Cymru (Green GEN Cymru) is developing green energy networks to meet the future needs of the country's people, communities, and businesses.

In 2024 we were granted an Independent Distribution Network Operator (IDNO) licence by Ofgem. As an IDNO, we'll design, construct and maintain a new 132kV (132,000- volt) electricity distribution network - needed to connect new renewable energy projects to the electricity transmission network, helping to get green energy to homes and businesses.

Adding much needed grid capacity and enabling new 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, reducing our vulnerability to UK energy supply disruptions. Our new network will create jobs and stimulate economic growth, reduce pollution, and improve public health.

We will work closely with communities and stakeholders as we develop our plans, to maximise the benefits and minimise the impacts for local people. You can find out more at the Green GEN Cymru website *www.greengencymru.com.*

Q **What is your relationship with Bute Energy?**

A Windward Energy Group consists of Green GEN Cymru, Bute Energy and Haldane Energy. As a regulated business, Green Gen Cymru is legally separate and is managed and operated independently.

In July 2024, Green GEN Cymru became an independent business regulated by Ofgem and is now operating under an Independent Distribution Network Operator (IDNO) licence. Under this licence Green GEN Cymru must treat all customers (be they new energy users or generators) equally. Bute Energy is a customer of Green GEN Cymru and has connection agreements in place.

GREEN GEN CYMRU

About the proposals

Q **How long would the overhead line be and how many pylons would you use?**

A The current proposed route alignment for the connection is approximately 45 km long. The design provisionally includes 171 pylons, with an average height of 28.5 meters.

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.

The design of the connection is still open to change from consultation feedback and ongoing environmental assessment so the number of pylons, the average height and length could all change.

Q **What is the status of the windfarms you are proposing to connect?**

A We have connection agreements with seven energy developments. There are more details about these in our updated Phase 2 Grid Connection Strategy, which is available on our website.

The energy developments are at varying stages of the planning process and all will need to seek the necessary permissions to be built.

The developers of the energy developments are responsible for progressing their plans including any requirements for consultation and assessment. We have considered the proposed setting of energy developments in our design for the connection and in the preliminary environmental assessment.

Q **Why are you developing the connection before the windfarms have planning permission?**

A The energy developments and new connections can both take several years to plan, consent, and construct so it is normal practice for energy generation and new connections to be developed in parallel.

Q **What is the status of the proposed National Grid substation that would be required near to Lower Frankton?**

A 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 our proposed 132 kV switching station. For more information about National Grid's project, visit: *nationalgrid.com/lower-frankton*

Q **Who would benefit from the energy that is generated?**

A The Vyrnwy Frankton project will contribute to a more resilient electricity network, ease pressure on the existing local grid, support businesses, and could enable the roll out of green heating and electric vehicles in rural communities. It will take power from where it is generated to the national transmission network in Shropshire, where it can then be distributed via the grid. This means that energy created by generators using the Vyrnwy Frankton connection will supply energy to homes and businesses across the country.

Green GEN Cymru holds an Independent Distribution Network Operator (IDNO) licence. The IDNO licence enables us to operate electricity distribution networks, supporting the growing demand for renewable energy infrastructure. This means we can respond to customer connection requests for both energy consumption and generation.

In this way, 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.

Undergrounding

Q **Why are you using pylons and not underground cables for the majority of the connection?**

A As an Independent Distribution Network Operator (IDNO) we have a duty under the Electricity Act to be economic and efficient as the cost of all connections is passed down to electricity consumers.

Since our first consultation, we have reassessed undergrounding, including open trench cabling and cable ploughing. Both are more expensive than developing overhead lines on pylons. This is due to the cost of the cables and the construction requirements.

Underground cables typically require more land and create more ground disturbance during construction, which has the potential to produce more significant ecological and archaeological impacts, which we must also consider.

Overhead lines can also be developed more quickly. This key if we're to bring low carbon energy to homes and businesses as soon as possible.

While the cost of one new connection might not appear to add much to electricity bills, when the maintenance and construction of all connections across Wales and England is considered, the costs to consumers would be significant if connections were put underground.

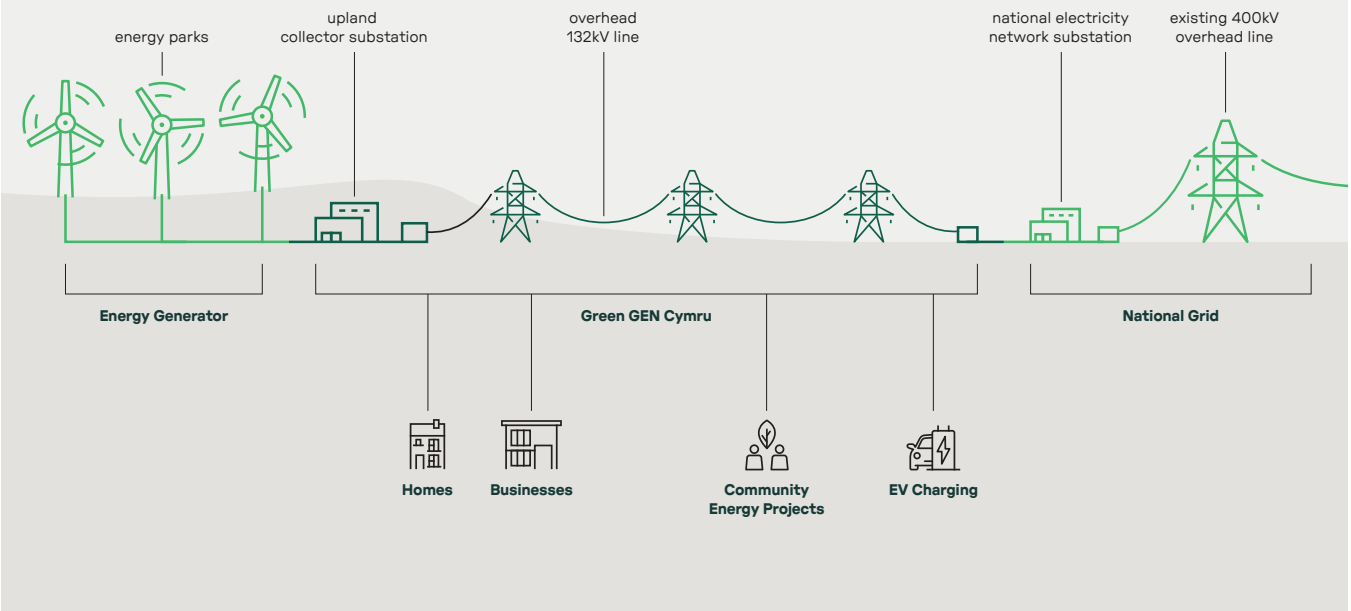
Q **Why did National Grid's proposals from 2024 include a section underground in the Vyrnwy Valley and Green GEN Cymru's proposal does not?**

A 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.

You can read more about the assessments we have completed and what we consider to be the current effects in the Preliminary Environmental Impact Report (PEIR) on our website.

An illustrative example of a 132 kV network.



Local economy and benefits

Q **Will the project benefit the local economy?**

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

We are committed to investing in supporting the local economy in the area of our projects. We are still at an early stage of project development, but we will be providing opportunities to the local supply chain wherever possible.

Q **Can I connect into your network?**

A Our proposed distribution lines offer much needed grid capacity and resilience to areas around our network. We are welcoming both new energy generators and energy users to connect into our lines, unlocking the country's energy potential but also putting power back into the local network. New energy users could be anything from new and expanding businesses to new homes.

If you would like to connect to our network, or are interested in an initial feasibility discussion, please visit Get Connected - Green GEN Cymru to register your interest. *https://greengencymru.com/get-connected/*

Q **Does Green GEN Cymru have a community benefit fund?**

A We do not, but by connecting wind farm projects from Bute Energy, the communities closest to our grid lines are also eligible to apply to Bute Energy's Community Benefit Fund.

Worth millions of pounds per year, this money will be available to provide financial support for initiatives that improve the quality of life for community members, help secure clean energy independence, foster engagement, and address social and economic concerns. Administered by Bute Energy, you can find out more on the Community Investment Fund on their website *www.bute.energy/community-investment/*

Effects on the local area

Q **What impacts will the project have on the environment and how will you mange them?**

A A changing climate is having a dramatic effect on plants and animals – protecting biodiversity is one of the key drivers for moving away from fossil fuels. Meeting the needs of the natural world with the infrastructure we need to address climate change requires careful balance. Developing large infrastructure will always bring effects on the environment, but it can also be an opportunity to invest in and enhance biodiversity.

We are committed to keeping the environmental impact of our proposals as low as can. We have carefully considered environmental impacts as we have developed the route alignment seeking to avoid particular areas or reduce impacts, where we can. You can read more about the alignment in our consultation brochure which is available on our website.

As part of this consultation we have published a Preliminary Environmental Impact Report (PEIR). The PEIR sets out the initial environmental impacts of the proposals and early considerations to manage or reduce these impacts, such as through careful siting of infrastructure.

Q **Are you considering biodiversity net gain?**

A Biodiversity net gain (BNG) is an approach to development, and/or land management, that aims to leave the natural environment in a measurably better state than it was beforehand. The government is consulting on how this should apply to Nationally Significant Infrastructure Projects, such as the Vyrnwy Frankton Project, with the aim of introducing this from November 2025. The expectation is this would require projects to deliver at least a 10% increase in biodiversity value relative to the pre-development biodiversity value of the onsite habitat.

Developing large infrastructure will always bring effects on the environment, but it can also be an opportunity to invest in and enhance biodiversity. We will always seek to keep any effects on biodiversity as low as we can in the decisions we make. We will comply with current guidelines in Wales and England on achieving a net benefit for biodiversity within the area. By working closely with the relevant stakeholders, we will work to deliver an environmental benefit that goes above and beyond these requirements.

Effects on the local area

Q **Have you considered flood risk in developing the proposals?**

A During our phase one consultation, you asked us about how we would manage the potential for flooding, given the Vyrnwy Valley has experienced river flooding in recent years.

The national policy statement for energy, which provides the government's expectations on how nationally significant infrastructure projects should be developed, specifically requires that we consider flood risk as we develop our proposals.

It states "where new energy infrastructure is, exceptionally, necessary in flood risk areas (for example where there are no reasonably available sites in areas at lower risk), policy aims to make it safe for its lifetime without increasing flood risk elsewhere and, where possible, by reducing flood risk overall. It should also be designed and constructed to remain operational in times of flood."

We are following these requirements and have considered flood risk and river patterns in developing the route alignment for the connection.

As part of this consultation we have published a Preliminary Environmental Impact Report (PEIR). The PEIR sets out the initial environmental impacts of the proposals, including flood risk, and early considerations to manage or reduce these impacts, such as through careful siting of infrastructure.

Pylons exist in flood plains across the country and we will ensure that we use appropriate construction methods in these sensitive areas.

Q **Will you replace any trees, hedgerows and vegetation removed during construction?**

A In line with emerging planning guidance which requires projects of national significance to deliver at least a 10% increase in biodiversity value, we would anticipate replacing all vegetation removed during construction and also increasing the amount of biodiversity, relative to the pre-development biodiversity value.

Q **Will you be undertaking surveys and which ones are needed?**

A Whilst developing our proposals, we have undertaken a range of surveys over a wide area.

These involved a small number of people entering certain areas of land to undertake a range of archaeological, environmental and engineering surveys.

Over the next few months, these surveys will continue alongside intrusive surveys at carefully selected locations to ensure the design of the project is as appropriate as possible. All surveys will be done in correspondence with the land owner.

Q **Do you have permission to carry out surveys?**

A Our overwhelming preference is to agree access for surveys on a voluntary basis by way of survey licence. In the event access for surveys can not be agreed voluntarily, Green GEN Cymru may rely on the rights afforded to us under the Housing and Planning Act 2016, which authorises us as an acquiring authority.

Q **By allowing survey access to my land will I be accepting that the project is going ahead?**

A Allowing Green GEN Cymru access to land for engineering, ecological and environmental surveys does not prevent the landowner making representations about the Project or remove the right to comment in any form.

Q **Would the proposals for the North East Wales National Park influence the project?**

A 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.

Effects on the local area

Q **Have you considered tourism in developing the proposals?**

A During our phase one consultation, you asked us that we consider sites important to tourism including places popular for visitors and the holiday and caravan parks in Powys.

Pylons feature in many areas in England and Wales where landscape, agriculture and tourism are thriving parts of the local economy – electrical infrastructure and these activities co-exist in lots of places.

We have considered the location of holiday parks and popular recreation areas in developing the route alignment for the connection, seeking to avoid particular areas or reduce impacts, where we can. You can read more about the alignment in our consultation brochure which is available on our website.

As part of this consultation we have published a Preliminary Environmental Impact Report (PEIR). The PEIR sets out the initial environmental impacts of the proposals, including on the local economy, and early considerations to manage or reduce these impacts, such as through careful siting of infrastructure.

As part of our planning application, we will also assess the project's impact on business and employment. This will include a socio-economic and community assessment, which will consider how the project could affect these areas and whether any mitigation is required, and how this will be delivered.

Building and operating the connection

Q **How do you plan to manage construction traffic on local roads and what transport routes do you intend to use?**

A We are committed to causing the least disturbance to those living and working in the areas affected by our proposals. We will take advice from technical stakeholders and thoroughly assess the project's impact on local roads as part of a traffic and transport assessment, which is a requirement of the process we will follow to submit a planning application. This will include how we plan to manage construction traffic and minimise any potential impacts. We recognise the importance of maintaining connectivity between nearby towns and villages and we will ensure that our work does not make it difficult for those living and working in the area.

Q **Will the overhead line emit any noise?**

A High-voltage overhead lines can sometimes generate noise, under certain conditions. This often sounds like either a crackle or humming sound and occurs mainly during wet weather. Noise may also arise as a result of wind blowing past the line or pylons. Any potential noise impacts will be assessed as part of the Environmental Impact Assessment (EIA) and this will include plans for mitigation. We will always ensure that the design of the overhead line and substation carefully considers any impacts on the local community.

Q **What are electric and magnetic fields (EMFs) and are they safe?**

A Electric Magnetic Fields (EMFs) are produced whenever electricity is used or transmitted. Our household wiring, appliances and electricity supply are all sources. So, they are around us all the time in modern life. Overhead lines are a source, but just one of many. The maximum possible exposure under the overhead line is 38.9 microtesla, which is similar to what you would expect from using a hairdryer or walking close to a microwave when it's cooking. There are limits in place to protect us all against EMF exposure. These limits have been based on careful reviews of the science by independent experts, who recommend safe levels of exposure for the public. The exposure limit for members of the public is 360 microtesla, so even if you are standing directly underneath the overhead line, the levels are just a small fraction of the limit. After many decades of research and hundreds of millions of pounds spent investigating the issue, there are no established health effects below the exposure limits. You can read more about EMFs in our EMF factsheet which is available on our website.

Effects on property

Q **Would the project affect property values?**

A We have considered the location of communities and individual properties in developing the route alignment seeking to avoid particular areas or reduce impacts, where we can. You can read more about the alignment in our consultation brochure which is available on our website.

The route alignment is still open to change through feedback and ongoing assessment so it's too early to know exactly how individual properties will be affected.

A study published in September 2024 for Scottish Renewables by BiGGAR Economics assessed the potential effects of power lines on house price trends, looking at the Beauly Denny line – a high voltage line through areas of rural Scotland, completed in 2015.

BiGGAR Economics surveyed estate agents from areas surrounding the Beauly Denny line. The study found that the uncertain period during the planning process did have some effect on the housing market, but that when the line was built housing market trends along the power line have mirrored those of the wider local authorities. Macroeconomic factors have been the principal drivers of house price growth and the power line has had no noticeable impact on house prices.

The Beauly Denny power line stretches from Beauly, north of inverness to Denny near Falkirk. This project is 137 miles long and has pylons almost double the height of the pylons proposed for Vyrnwy Frankton.

The report is available here: *https://www.scottishrenewables.com/publications/1714-house-prices-impact-of-beauly-denny-grid-infrastructure*

Q **The government announced it was considering reducing energy bills for communities hosting infrastructure – what's the status of this?**

A The government completed and reported on a consultation on the role played by local communities which host transmission network infrastructure. This consultation was about the high voltage transmission network, not the distribution network which is what the Vyrnwy Frankton project would become.

The government is moving ahead with its plans following the consultation. We are monitoring the situation and will comply with any relevant legislation. More information is available here: *https://www.gov.uk/government/consultations/community-benefits-for-electricity-transmission-network-infrastructure*

Landowners

Q **How will you support those that are likely to be directly impacted by the project?**

A We understand the effect on those impacted by our proposals including homeowners, landowners and the local community, and we are committed to ensuring that any impacts are mitigated as much as possible. While we're making every attempt to keep impacts on communities low, the route alignment does cross through areas of agricultural land. Our dedicated lands team are talking to landowners and working closely with those who are most affected by our proposals. If you have an interest in land affected by our proposals and have not been contacted by our lands team, please get in touch.

Q **How will you compensate landowners that have equipment on their land?**

A This is our second round of consultation, and we are still asking for feedback on the work we have done to date and how we should further develop our proposals. It is very important to us that people respond to this consultation and tell us their concerns so we can work to reduce the effects on communities and individual properties. Once we have refined our proposals, we will work with landowners affected to discuss how we can support them. We will work hard to reduce impacts on individual properties but if the final design does impact your property, we will discuss what compensation is available to you in line with current legislation.

Consultation and feedback

Q What did you do with the feedback to first consultation?

A We analysed all feedback from our first consultation, and it has influenced the route alignment. We have published our phase one consultation report. The report sets out the feedback we received and our response to the comments received. We have also explained how feedback has influenced the route alignment in the phase two consultation brochure. Both documents are on our website.

Q How will my feedback be considered and why is it important?

A We are legally required to have regard to all of the feedback we receive to the statutory consultation. Your feedback will be assessed by our project team, who will consider it as part of a review the proposals. Feedback from the communities will be considered alongside feedback from specialist stakeholders, environmental assessments, and engineering requirements such as safety and efficiency.

As part of application for development consent, we will publish a Consultation Report explaining the feedback we've had and how we've had regard to it in developing the project.

The spring 2025 consultation 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.

Q What feedback do you want?

A Your knowledge is very valuable to us and we welcome any feedback you have on our proposals.

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 400 kV 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.

Feedback is most helpful when it is as specific as possible, citing pylon locations. You can find pylon numbers on our interactive map here, *https://greengenvyrnwyfrankton.com/en/the-project/our-preferred-route/*

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.

info@greengen vyrnwyfrankton.com

0800 915 3590

FREEPOST Green GEN Cymru V2F