

Aberedw Energy Park



Statutory Consultation Brochure

July 2025

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About Bute Energy

At Bute Energy, our mission is to create renewable energy projects that deliver a wealthier, healthier Wales – we want to make the Welsh weather work for Wales through the biggest business investment in the rural economy in a generation.

We’re taking an innovative approach to deliver, as quickly as possible, the renewable energy we need, with all our energy parks capable of producing green energy before 2030.

With Welsh Government targets committed to meeting 100% of Wales’ electricity needs by 2035, we’re playing our part in making that a reality.

We are committed to maximising the positive impact of our projects to deliver:



2 gigawatts worth of clean electricity across our Energy Parks



£3 billion worth of investment into the Welsh economy



Up to 2,000 jobs directly and indirectly through our projects

Our commitment to Wales

- Maximising renewable energy generation from each proposal whilst protecting the environment and supporting local communities.
- Source our products through the local supply chain and develop new skills and apprenticeship programmes.
- Deliver long-term community benefits to support residents, charitable organisations and businesses surrounding each renewable project.
- Develop sustainable, environmental and recreation initiatives around our development sites which will maximise their use for local and regional communities.

Project information

We're now consulting on our finalised proposals before applying to Planning and Environment Decisions Wales (PEDW) for determination by Welsh Ministers. Information on how to give your feedback is on the back page.



Aberedw Energy Park is proposed to be located approximately 3km east of Builth Wells, Powys.



Aberedw Energy Park will have 18 turbines, with a maximum blade tip of 200m



Pay back the carbon cost of the energy park's construction and operation within 10 months



Generating up to 120 megawatts (installed capacity) of clean renewable energy



Enough to power between 86,000* and 113,000 homes



Up to £900,000 of annual Community Benefit Funding

*Approach recommended by RenewableUK

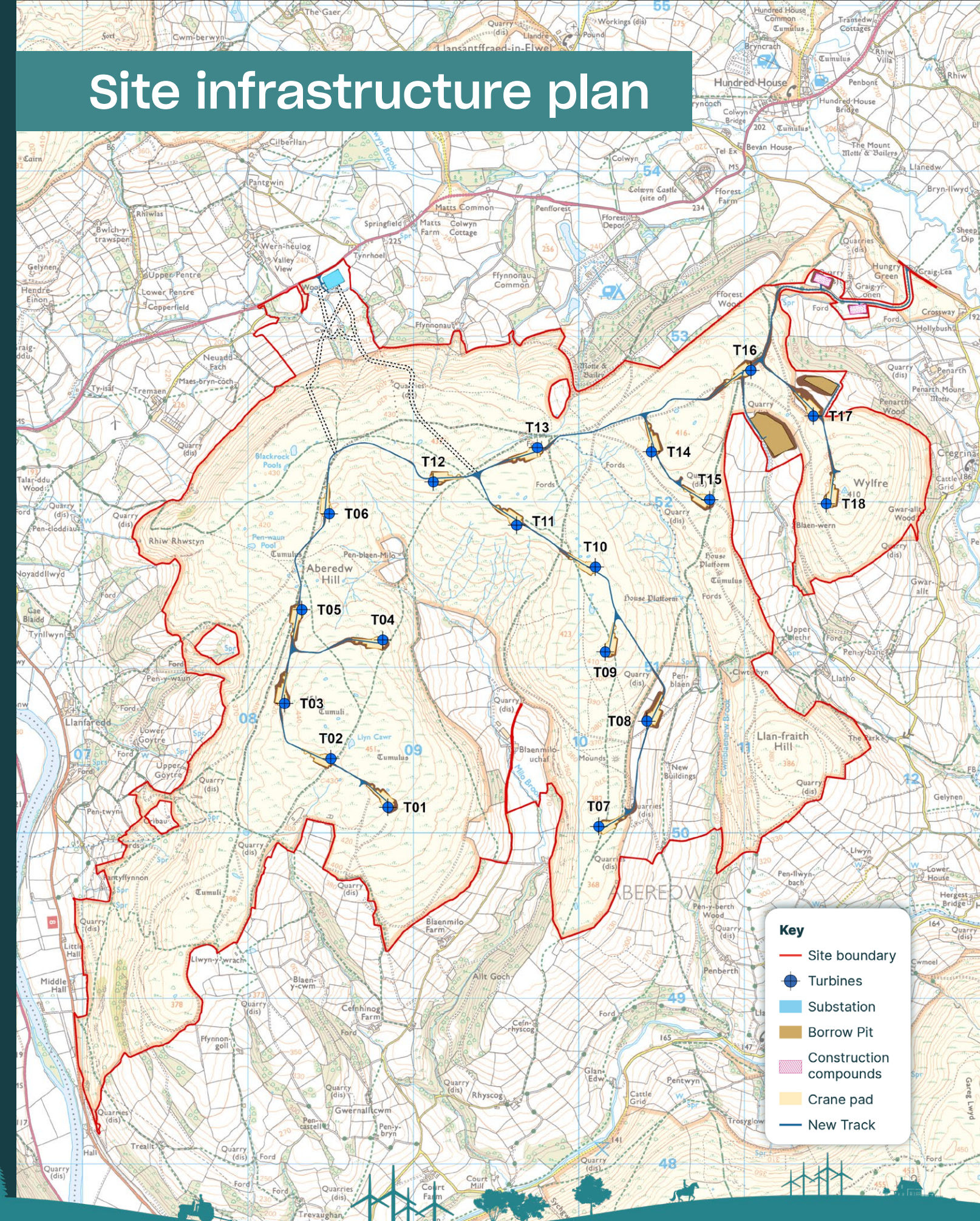
Site map

Aberedw Energy Park will include associated infrastructure, such as transformers housed within turbines and on-site infrastructure comprising a substation, access tracks, crane pads and cabling. A temporary construction compound with site offices will also be constructed.

The Energy Park will be designed with an operational life of up to 40 years, exporting renewable energy directly to the national grid.

The location has been chosen because of its technical and environmental suitability and optimal wind speeds.

Site infrastructure plan



Proposal updates

The proposals have been updated following the results of surveys and feedback received from the community and key stakeholders as part of our earlier consultation.

We've altered our site design to:



Reduce potential shadow flicker and noise at nearby properties



Reduce development on common land



Minimise impacts on landscape, visual amenity and historic features



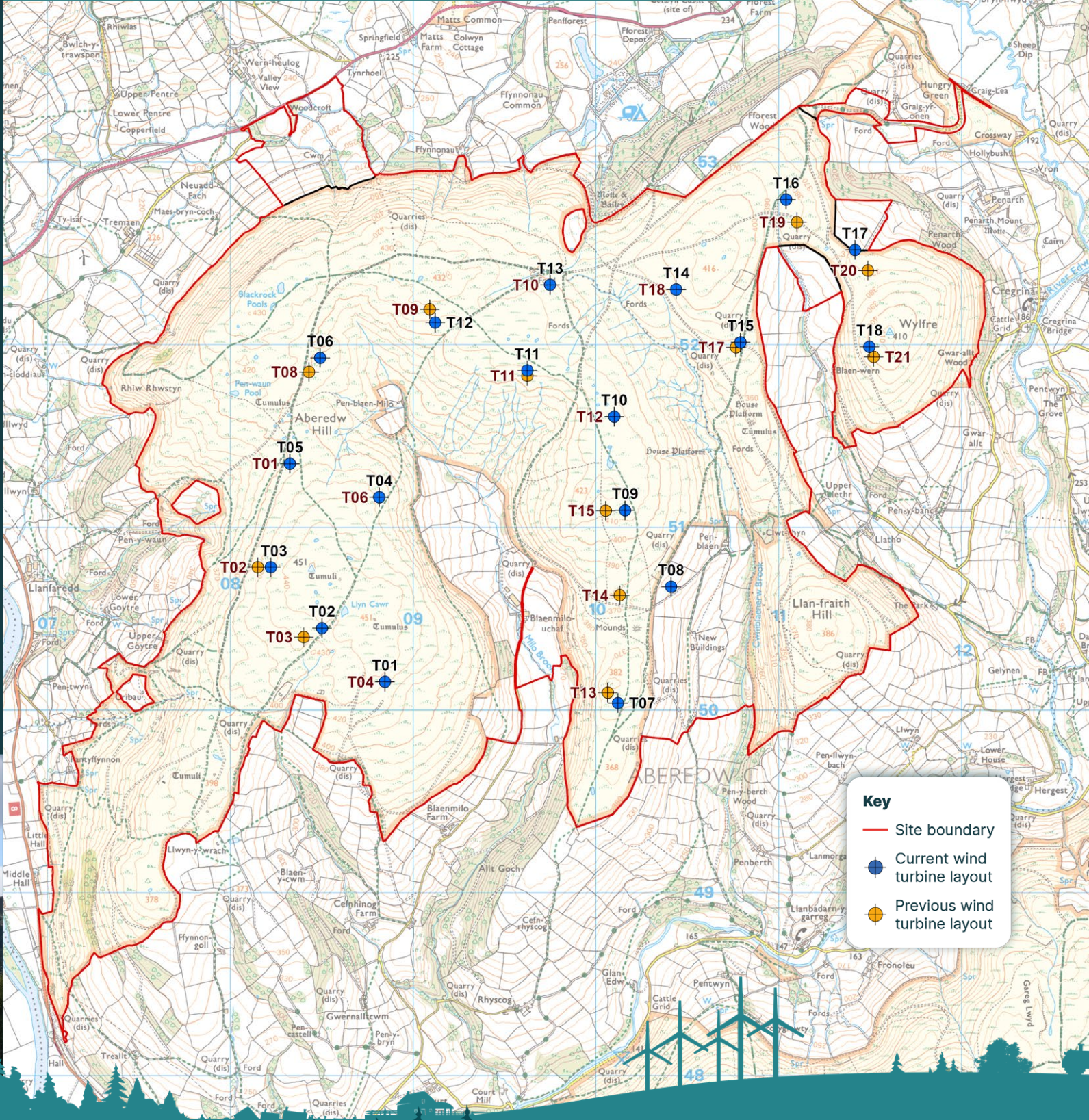
Minimise impacts on the watercourses across the site

We're proposing to upgrade an existing road junction and highway to the energy park site to minimise the amount of new development on Aberedw Hill.

We've selected a substation location near the A481 which will be designed to look like a farm shed and will create an easier connection to the grid. This will have its own upgraded access from the A481.

We've agreed our aviation lighting scheme with the Civil Aviation Authority, and it complies with Ministry of Defence guidance.

Changes to the proposed turbine layout



Environmental assessments

To ensure Aberedw Energy Park is designed with care and sensitivity, we've conducted extensive surveys on ecology, ornithology, historic environment, hydrology, geology and soils, noise, landscape, and visual impact.

These assessments have helped us determine the most suitable locations for the turbines and other infrastructure and ensure that any potential impacts are addressed with robust mitigation measures.

Our Environmental Statement outlines all the surveys we've done and actions we're taking to protect the environment:



Ecology

The project will deliver net benefit for biodiversity over its lifetime, including creating and restoring habitats.

These enhancements brought under appropriate habitat management for the 40-year duration of the project, will benefit wildlife across the site by increasing the quality, diversity and connectivity of habitats.



Ornithology

We've carried out detailed bird surveys across the site, including vantage point, breeding season, bird of prey and winter walkover surveys.

Particular attention has been given to species such as Goshawk, Red Kite and Golden Plover which may be impacted during construction and / or may be at risk of collision.

To reduce the risk, we've used collision risk modelling to help shape the site design and reduce potential impacts. We've added buffer zones around protected bird nesting sites and a Bird Protection Plan will guide construction to avoid disturbance.



Hydrology, hydrogeology, and geology

We've carried out a range of surveys to understand the site's current water environment and ground conditions, including desk studies and fieldwork.

Soil was tested in various locations, and all water features were carefully mapped. Small areas of peaty soils have been identified and avoided in the design.

Several private water supplies are present on site. To protect them, we'll conduct further assessments and regularly monitor water quality during construction.

These findings will shape detailed Soil, Surface Water, and Construction Environmental Management Plans, developed with experts and kept up to date throughout construction and operation.



Aviation and lighting

We've worked closely with the Civil Aviation Authority, National Air Traffic Services, and the Ministry of Defence to ensure our plans comply with aviation safety regulations fully.

Given the height of the turbines, aviation safety lighting will be required and wherever possible, the final lighting configuration will be optimised to minimise visual impact on the local area and impact on aviation.

Special lighting would be used to reduce brightness downward, making it less visible from below.





Landscape and visual impact

We've completed a comprehensive Landscape and Visual Impact Assessment, reviewing key viewpoints up to 28km from the outermost turbines of the site and 33 km within the Bannau Brycheiniog National Park in consultation with Powys County Council's landscape experts.

We've also undertaken a detailed Residential Visual Amenity Assessment of every residential property with 2km of the site.



Shadow flicker

We've assessed the potential for shadow flicker at nearby residential properties – which is a phenomenon caused by the rotation of turbine blades casting intermittent shadows under certain weather conditions. This effect can be accurately predicted, and we'll implement mitigation measures such as temporarily shutting down turbines during peak shadow flicker periods.



Historic environment

We've conducted extensive archaeological and historic background assessments of the site and surrounding area. These assessments found four designated historic assets within the site, which the design of the proposed development has carefully considered and avoided directly impacting.

Our Construction Environmental Management Plan will set out best practice measures to reduce harm to undesignated and unknown historic assets during construction.

There will be a significant effect on the setting of two designated historic assets, Aberedw Hill Round Barrows (Cadw Ref. RD074) and Cwmblaenerw Enclosed Long Hut (Cadw Ref. RD169), while the Energy Park is operational. This impact will cease once the park is decommissioned.

During construction, we'll employ archaeologists to preserve, and record remains of any undesignated assets that may be physically impacted, with works agreed with Heneb (formerly Clwyd-Powys Archaeological Trust).



Noise

We've carried out thorough noise monitoring and impact assessments in line with best practice, relevant legislation and in consultation with Powys County Council. This ensures that noise limits are set to protect local residents and safeguard residential amenity.

Any planning permission granted will include strict noise limits, and we have taken steps through the design of the project to ensure these limits are not exceeded. Temporary noise during construction will be managed through a Construction Environmental Management Plan, which includes restricted working hours to minimise disruption.



Climate Change

We have calculated that within the first year of operation Aberedw Energy Park will have produced enough green energy to payback the carbon cost of its construction and operation against a fossil-fuel mix of electricity generation.

The carbon cost to build, operate and maintain the Energy Park has been calculated as part of the planning application. This includes the carbon created in the construction of the turbines, the concrete used in the foundations and the carbon released when digging foundations, and the projected 40 year operational life.



Transport and access

The Energy Park is located centrally in Wales, so we are considering two route options for deliveries of turbine components into ports located either to Birkenhead in the north or Swansea in the south.

The primary access point for Aberedw Energy Park will be via an upgraded access junction off of the C1336 road.

This upgraded access junction will provide the sole access for all abnormal loads associated with the turbine deliveries as well as access for HGV's delivering construction materials and access for the construction workers.

A second access point is located directly off the A481, north of the Site, solely to facilitate access to the substation during construction and operation.

There will be no access from the substation to the main wind turbine area of the site.

Any additional works required for the transport of abnormal loads requiring separate consent will be submitted in consultation with the relevant local planning and highway authorities.

A Transport Management Plan will be developed in collaboration with the police, highway authorities, and hauliers to ensure the safe and efficient transport of components and to ensure as minimal disruption as possible; for example it considers school run times and key events.

Transmitting power

Substation

The proposed layout includes a significant change regarding the proposed substation.

During the Aberedw Grid Connection consultation undertaken by Green GEN Cymru in 2024, it was advised that the substation for Aberedw Energy Park would be located on the top of Aberedw Hill, with a wooden pole overhead line to connect it to an electrical switching station proposed as part of the Towy Usk project and the wider grid.

We have now identified a new location for the substation at the base of Aberedw Hill, using underground cables to transmit power from the turbines to the substation.

The grid transformer and switchgear equipment will be within a building, designed to appear like an agricultural building to fit in with the local environment. This will lie close to the electrical switching station proposed as part of the Green Gen Towy Usk project.

This now means:



Underground cabling to the substation likely removes the need for a wooden pole connection down the side of Aberedw Hill.



Less visual impact from the substation and grid connection.



Removal of infrastructure from common land.



Easier access to the substation due to being located next to a main road.



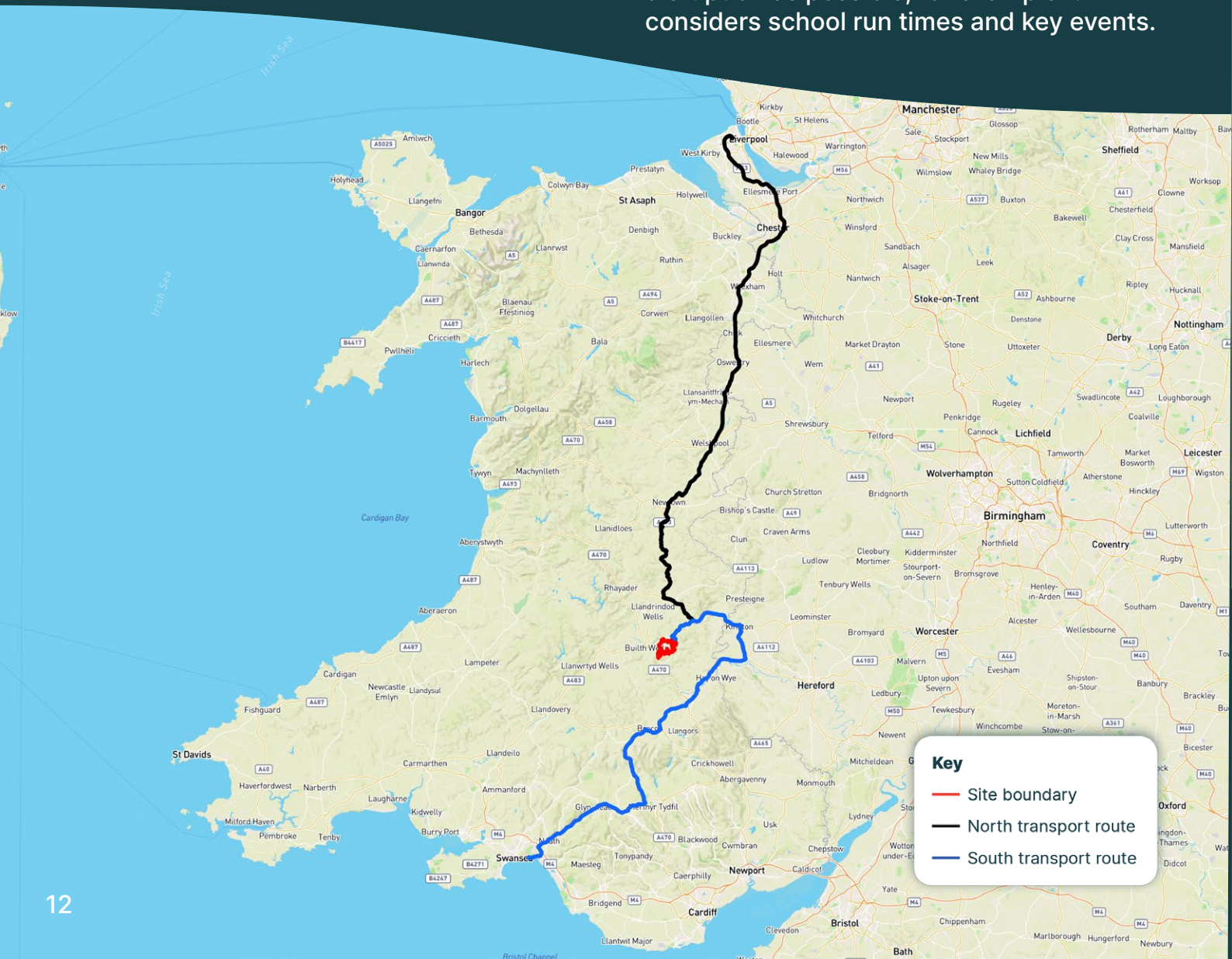
Easier access to the grid network.

Grid connection

The park will be connected to the wider national grid system via Green GEN Cymru's Aberedw Grid Connection and Towy-Usk projects.

Green GEN Cymru will design, consent and construct the grid connection for the Aberedw Energy Park. You can find out more about their plans by visiting the respective websites:

www.greenenaberedw.com | www.greengentowyusk.com



Construction and decommissioning

Construction of the energy park is likely to take less than two years to complete.

To ensure that the construction process causes as little disruption to the local community as possible, we'll be submitting an Outline Construction Environmental Management Plan with our application.

Key features of the construction are:

- No turbines or hard standings are placed on peat (no peat on the site).
- Average turbine foundations 25m across.
- Approximate total volume of concrete used on the turbine bases: 26,000m³
- Every effort to be made that soil removed during construction to be stored on site and used in restoration.
- A surface water assessment has been carried out and a management plan will be agreed with expert stakeholders prior to work starting on site. The plan will cover both construction and operation.

Operation and decommissioning

The anticipated lifespan of the project is 40 years. After construction is complete, and Aberedw Energy Park is operational, engineers will regularly assess and maintain the turbines and the other on-site infrastructure. Any issues on the site during operation will be followed up accordingly.

As part of the planning permission, a planning condition will be included to require a Decommissioning Plan to be agreed before the site is decommissioned. There will also be a legal obligation to set up a decommissioning fund with the local authority.

The Energy Park owner has the financial responsibility to decommission the site and remove all infrastructure. To ensure this, an independently valued bond is secured early in the project to cover decommissioning costs—protecting landowners and taxpayers. If the owner defaults, the bond allows authorities to step in and carry out the work.

In summary, decommissioning is planned for from the start, with strong legal and financial safeguards. An outline decommissioning plan will also be agreed before construction begins.



Community investment



The Aberedw Energy Park will deliver significant benefits to the local community, including a Community Benefit Fund of up to £900,000 each year over the lifespan of the project.

The Community Benefit Fund will provide local groups, charities, and services with funding to sustain their work, and create new innovative projects that benefit local people.

How will the funding be structured?

- For every megawatt Aberedw Energy Park has the capacity to generate, £7,500 will be invested in the local community and this will link to the Consumer Price Index to allow for economic inflation and to future proof the funding.
- The Community Benefit Fund will be administered through an independent charitable entity and informed by a local panel.
- There would be a contractual term in any potential change in ownership which would ensure that the buyer is legally bound to honour the terms of the Community Benefit Fund contract for the duration of the lifespan of the Energy Park.

Our five key areas of focus:

Cost of living support
Identifying how we can support local residents struggling with the cost of living, particularly those living in fuel poverty.

Education
Designing and delivering interactive educational sessions for all ages, raising awareness about issues like climate change and renewable energy generation.

Environment and culture
Engaging with communities to celebrate and promote the natural environment, local culture and heritage sites.

Employment
Working with education, training and employment providers to create pathways and opportunities to enter the renewable energy industry.

Recreation and health
Helping to improve access to local recreation, health and wellbeing activities, to support the physical and mental health of local communities.



Project timeline

Winter 2023

Initial consultation with community and stakeholders

Winter 2023 to Autumn 2024

Evolution of our proposals – informed by feedback and site surveys

Early 2025

Drafting application with detailed plans and environmental statement

2025

Meteorological Mast - planning permission and installation

Summer 2025

Statutory pre-application consultation

Winter 2025

Submission of Development of National Significance planning application

Autumn 2026

Welsh Ministers expected to determine application

2027/8

Procurement of turbines, construction contracts, and associated electrical and civil engineering work

2029

Construction completion, and first export of clean, green energy to the National Grid.

Have your say

We invite you to give feedback on our draft planning application for Aberedw Energy Park.

Your feedback will be reviewed and responded to in the Consultation Report and submitted to PEDW as part of the planning application.

Please get in touch and send us your feedback by 5pm on Monday 18 August 2025.



aberedwenergypark.wales



Feedback forms are available on our website, or at our public drop-in sessions. Or get in touch and we can send you a hard copy in the post.



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Freepost GRASSHOPPER CONSULT



Scan the QR code to take our short survey, which will help us better understand your views on the energy park, and what's important to your community.

