Statutory

Consultation Brochure

8 April– 10 June 2026

Calderdale energy park

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Introduction

Welcome to our statutory consultation

Welcome to our statutory consultation on proposals for a new onshore wind project located at Walshaw Moor, to the north of Hebden Bridge in Calderdale, West Yorkshire.

Calderdale Energy Park could deliver approximately 240MW of clean, renewable energy. Given this scale the project is classified as a Nationally Significant Infrastructure Project (NSIP) and will proceed through the Development Consent Order (DCO) process. This means that, following public consultation and assessment, the Secretary of State for Energy Security and Net Zero will make the final decision on whether to grant consent for the project.

This project would make an important contribution in supporting the UK's journey towards decarbonisation by generating clean, sustainable energy locally and reducing reliance on fossil fuels. Calderdale Energy Park will help to provide reliable, low-carbon energy, supporting the UK Government's Net Zero targets and contributing to the nation's response to rising energy costs and energy security challenges.

About the consultation

Our statutory consultation will run from Wednesday 08 April until 11:59pm on Wednesday 10 June 2026. This consultation process has been designed to provide detailed preliminary information about the project based on the assessments we have completed to date and to encourage your feedback on the revised proposals. The revised proposals have been informed by feedback received during the non-statutory consultation and ongoing technical and environmental work and assessments.

This statutory consultation is a formal requirement for NSIPs and offers a vital opportunity for the community, local authorities, and statutory consultees to review the latest proposals, and share their views, helping to shape the ongoing design and assessment of the project. The feedback received will play an important role in finalising the proposals ahead of the submission of the DCO application to the Planning Inspectorate later this year.

We encourage feedback on all aspects of the project, but your local insight on the following areas would be especially valuable in helping to refine the design:

- The updated site turbine layout for Calderdale Energy Park;
- The proposed cable route corridor connecting to Bradford West Substation;
- The updated proposals for the proposed access routes to the turbine; and
- Measures proposed to avoid or minimise impacts identified in the Preliminary Environmental Information Report (PEIR).

About us

The Applicant, Calderdale Wind Farm Limited (CWFL) is a company committed to delivering a nationally significant renewable energy project at Walshaw Moor in West Yorkshire.

The project is sponsored by NextGen Infra, a global investment group and subsidiary of Al Gihaz Holding, with a development track record of over 550 MW of renewable energy projects.

Al Gihaz Holding is active across energy, construction, and industrial solutions with a strong presence in the UK power supply chain via Lamprell, a leading provider of offshore wind infrastructure, and Enshore Subsea, an industry expert in subsea cabling solutions for offshore wind.

Responding to your feedback

Between April - June last year we carried out our non-statutory consultation to gather your feedback on our early proposals. Thank you to everyone who shared their views and attended our events. We received more than 1,000 pieces of feedback, and over 479 people joined us at our public exhibitions.

Throughout the consultation several key issues were raised, and we have detailed how we have responded to these issues through our emerging design.

Other themes that were raised in response to the non-statutory consultation are detailed in the non-statutory consultation summary report. The report can be accessed or downloaded from the document library on www.calderdaleenergypark.co.uk

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You said

Concerns have been raised regarding aviation matters associated with Turbines 1–5, as well as Landscape and Visual Impact Assessment (LVIA), operational noise, and the potential effects arising from Turbines 1–4 in particular, given their proximity to Widdop Lodge.

We did

In light of these concerns and informed by the findings of ongoing technical and environmental assessment work, the project team has removed Turbines 1–5 entirely from the Calderdale Energy Park design. This change aims to address aviation safeguarding requirements and reduce potential landscape, visual and noise-related effects in the Widdop Lodge area.

You said

Concerns have also been raised in relation to the LVIA, specifically regarding the potential visual and character impacts associated with Turbines 33 and 34, which are located at the eastern extent of the site.

We did

Following a detailed review of the LVIA issues raised during engagement, Turbines 33 and 34 have been removed from the proposed layout. Their removal is intended to reduce visual prominence and ensure the scheme responds appropriately to sensitivities in the eastern landscape setting.

You said

Concerns about locating turbines in areas of deep peat and associated ecological and hydrological sensitivity.

We did

Phase 2 peat probing surveys have been completed to refine our understanding of peat depth and distribution across the site. As a direct result of this work, Turbines 23 and 24 have been removed. In addition, several turbine positions have been micro-sited to avoid deeper peat deposits and blanket bog, ensuring the design better aligns with best-practice peatland protection and restoration principles.

You said

Concerns raised about potential landscape setting impacts on the historic location of Top Withens.

We did

To respond to concerns about the visual relationship between the scheme and Top Withens, Turbines 20 and 21 have been moved further downslope to reduce their prominence in key views. Their maximum tip height has also been reduced from 200 m to 150 m, mitigating potential landscape and visual effects on this culturally significant feature.

You said

Concerns raised about the inclusion of Battery Energy Storage System (BESS) in the project.

We did

Reflecting feedback received and the desire to simplify the overall scheme, the BESS component has been removed from the proposed design for Calderdale Energy Park. The project now focuses solely on wind energy generation.

What is a Statutory Consultation?

Calderdale Energy Park is classed as a Nationally Significant Infrastructure Project (NSIP). This means that before we can submit our Development Consent Order (DCO) application, we must carry out a statutory consultation. This is a legal requirement set out in the Planning Act 2008, which sets rules for how projects like ours must consult the public and statutory bodies, and other interested parties.

As part of this process, we have published a Statement of Community Consultation (SoCC). This document explains how we will consult with local communities, local authorities and other key organisations, and sets out the ways people can get involved and share their views. The statutory consultation must be open for a minimum of 28-days. The statutory consultation on Calderdale Energy Park is open for a nine-week period (64 days).

Statutory consultees include local authorities, parish councils and organisations such as the Environment Agency. For Calderdale Energy Park we are required to consult as host authorities;

- Calderdale Metropolitan Borough Council
- Lancashire County Council
- City of Bradford Metropolitan District Council
- Pendle Borough Council

We are committed to working closely with local authorities, statutory bodies and the wider community throughout the DCO process. Public input is a vital part of shaping the project, and we want to ensure that local voices are heard and reflected in the proposals.

During our non-statutory consultation, we received important feedback from residents, community groups and other stakeholders. Alongside our ongoing environmental and technical assessments, this feedback has informed the evolving design of Calderdale Energy Park, which is being presented in this statutory consultation.

We have produced a suite of consultation materials to explain our revised proposals for Calderdale Energy Park.

- **Statutory consultation brochure** – this brochure provides detailed information about the project, what we're consulting on and details of how to get involved.
- **Statement of Community Consultation (SoCC)** – this is a statutory requirement during the statutory consultation; this outlines how we plan to consult with the community during the statutory consultation. Calderdale Council, Pendle Borough Council, Lancashire County Council and the City of Bradford Metropolitan Council have been consulted on this document.
- **Statutory consultation newsletter** - this is the newsletter you may have received in the post. It provides a general overview of the consultation and details how to get involved.
- **The PEIR** - this contains a description of the project and a preliminary assessment of the likely significant environmental effects of Calderdale Energy Park, based on the initial information available. It also sets out how CWFL proposes to mitigate the impacts of and maximise the benefits of Calderdale Energy Park.
- **Statutory consultation feedback form** – this form is structured so you can provide feedback on different elements of Calderdale Energy Park.
- **FAQs Booklet** – this document has been produced to provide more in-depth answers to common questions raised about Calderdale Energy Park.

After the statutory consultation, we will finalise our proposals and prepare the documents required for our DCO application. This will include a Consultation Report, which will set out the feedback we received during both the non-statutory and statutory consultations, and explain how we have taken that feedback into account.

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Why is Calderdale Energy Park Needed?

Strengthening the UK's energy security is a national priority. To reduce reliance on imported fuels and protect households and businesses from volatile global energy markets, the UK needs a greater supply of reliable, home-grown electricity. The Government's ambition to deliver 95% low-carbon electricity by 2030 and reach Net Zero emissions by 2050 reflects this need. Achieving these goals requires a significant increase in domestic renewable energy, supporting local employment, lowering long-term energy costs and ensuring a more resilient and secure energy system for the future.

A significant portion of the UK's carbon emissions comes from power generation, heating and transport. To meet climate targets and achieve Net Zero by 2050, it is essential to move away from fossil fuels and towards clean, renewable energy sources.

Calderdale Energy Park aligns directly with these national priorities. As a new onshore wind project, it will generate clean, renewable electricity from the strong wind resource at Walshaw Moor, supporting the UK's transition to a low-carbon future while helping to meet rising electricity demand.

Since our previous consultation closed in June 2025, the project has been refined in response to community feedback and further technical work. The number of proposed turbines has been reduced from 41 to up to 34, ensuring a careful balance between delivering essential renewable energy and considering the surrounding landscape, habitats and nearby communities.

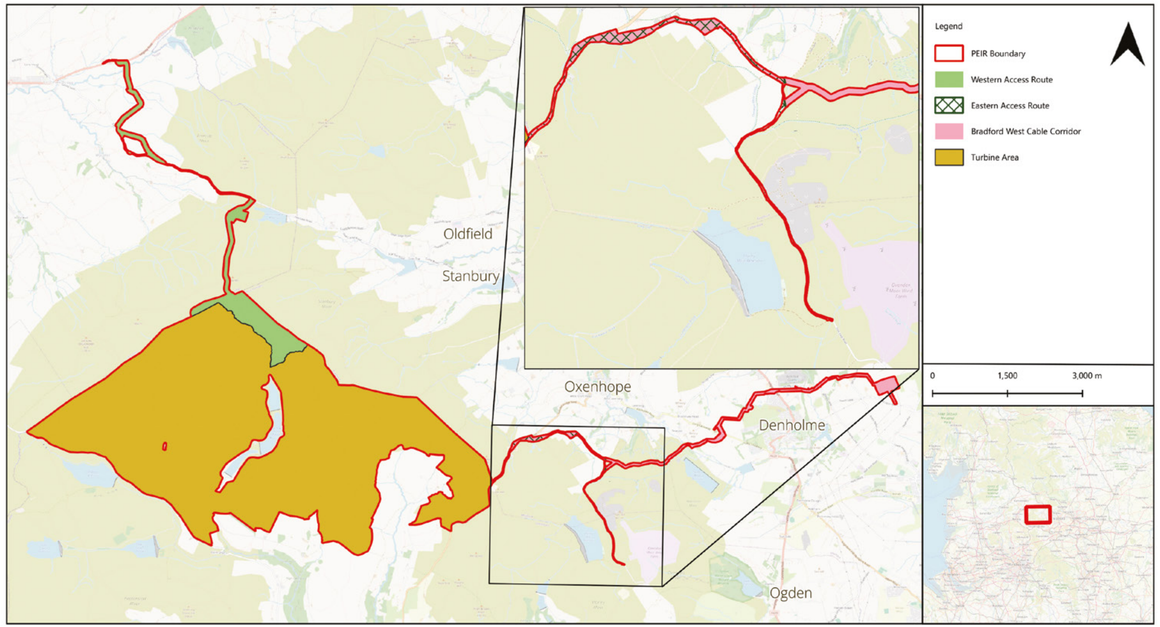
Calderdale Energy Park supports three key national priorities:

- **Energy Security:** Contributing to a resilient and diverse home-grown energy supply.
- **Affordable Energy:** Reducing dependence on fossil fuels and supporting more stable long-term energy costs.
- **Net Zero:** Providing low-carbon electricity to help meet legally binding climate targets.

Calderdale Energy Park is located in an area identified as being suitable for further onshore wind generation[1], making it an important part of both regional and national clean energy strategies. The Walshaw Moor site is particularly well-suited for wind energy, offering strong and consistent wind resources that can deliver reliable, low-carbon power for years to come. By installing wind turbines at Walshaw Moor, Calderdale Energy Park can make a meaningful contribution to the nation's energy supply while supporting regional and local benefits.

A Statement of Need will accompany the DCO Application, setting out in more detail why Calderdale Energy Park is required at Walshaw Moor and how it contributes to the UK's clean energy ambitions.

1. https://new.calderdale.gov.uk/sites/default/files/2023-06/Local-plan-eb-areas-suitability-wind-development_Jan-2017.pdf



Site Location

Calderdale Energy Park would be located across 2,227 hectares of land at Walshaw Moor on either side of the three Walshaw Dean Reservoirs in the Metropolitan Borough of Calderdale, West Yorkshire.

Walshaw Moor sits above the towns of Hebden Bridge and Haworth, near the Walshaw Dean Reservoirs, Hardcastle Crags, and Top Withens.

An Abnormal Indivisible Load (AIL) and Heavy Goods Vehicle (HGV) access route is proposed from the west, connecting the main turbine site to the A6068 via Lancashire Moor Road and Two Laws Road and two proposed 'private' sections of new road on rural properties. Access for HGVs is also proposed from the east, using the public highway from Halifax to Oxenhope, with an 'offline' access connection proposed between High House Edge Lane and the A6033, south of the Horse and Waggon Inn. The purpose of the offline sections of access road is to minimise the potential impacts of larger construction vehicles using environmentally sensitive sections of road in Colne and Oxenhope.

An export cable route is proposed from the eastern edge of the main turbine site on the A6033, running to the existing Bradford West substation. The route has been selected to reduce potential impacts on sensitive environments, including Sites of Special Scientific Interest (SSSI), watercourses and historic landfills.

Calderdale Energy Park offers an opportunity to generate approximately 240MW of renewable energy on this rural site.

The proposed main turbine site is predominantly covered by peat, making it a key carbon store. It is currently managed as a grouse moorland, with land use practices focused on game production. The eastern part of the main turbine site is located in the Green Belt.

While there are limited statutory heritage designations within the proposed boundary for the project, the main turbine site is located within the Brontë Country, which is an area of historical and cultural importance.

Given the site's heritage value, we are committed to respecting the local historical and cultural features throughout the planning and development process.

Onshore wind can be successfully integrated into ecologically sensitive areas when projects are properly planned. Through the environmental studies and technical assessments undertaken for Calderdale Energy Park-summarised in this brochure and detailed further in the PEIR-we have built a strong understanding of the site's characteristics. This evidence-led approach has informed the design, helping us reduce potential impacts on sensitive habitats from the outset and identify appropriate mitigation where required.

What has changed?

Since our non-statutory consultation in 2025 the project has evolved considerably.

In 2025, as part of our non-statutory consultation we presented an updated design for Calderdale Energy Park. A project design was shared with consultees showing 41 turbines and a BESS, the removal of solar panels, and adjusted access routes and grid connection routes.

Following feedback from the local community and ongoing technical and environmental work and assessments, the 2026 design reflects substantial changes to ensure the project is environmentally sensitive, technically robust and responsive to local views.

We have outlined the key updates to the project opposite:

Removal of the Battery Energy Storage System (BESS)

Earlier proposals for Calderdale Energy Park included a BESS to store excess electricity. After reviewing consultation feedback and carrying out further environmental and technical work, the BESS has been removed from the 2026 design.

The project now focuses solely on delivering efficient, large scale onshore wind generation.

Updated Export Capacity

With the refined 2026 layout, the project is now expected to export approximately 240 MW of renewable electricity to the Bradford West Substation - a change from earlier estimates of approximately 300 MW. This is due to the reduction in the number of turbines proposed for the project.

Reduced Number of Wind Turbines

The design has been progressively refined over several stages. The 2026 design now proposes up to 34 turbines. This reduction reflects the findings of detailed environmental surveys alongside feedback from statutory consultees and local communities, who raised concerns relating to landscape and visual effects, peatland impacts, heritage settings, aviation constraints and noise.

This feedback and assessment work has directly influenced the removal, repositioning and re-siting of turbines to ensure the layout is more environmentally sensitive and better reflects the expectations and feedback of the local community. More detailed information about the revised turbine layout is available on page 16 of this brochure.

Grid Connection

The project initially considered four grid connection options. Further technical work and feedback identified Bradford West Substation as the closest substation and the connection option with the least potential for environmental impact. CWFL then requested a formal change of the Point of Connection through the National Energy System Operator (NESO) Gate 2 process.

Access Routes

We have refined our construction access strategy to minimise disruption and improve safety.

Two access points are proposed:

- **West (A6068):** Expected to be used by HGVs, construction traffic, workforce and Abnormal Indivisible Loads (AILs).
- **East (A6033):** For HGVs, construction traffic and staff.

Ongoing technical and environmental work continues to shape these routes, and both remain under review. Further detail on the preferred access arrangements is provided on pages 41 to 43 of this brochure.

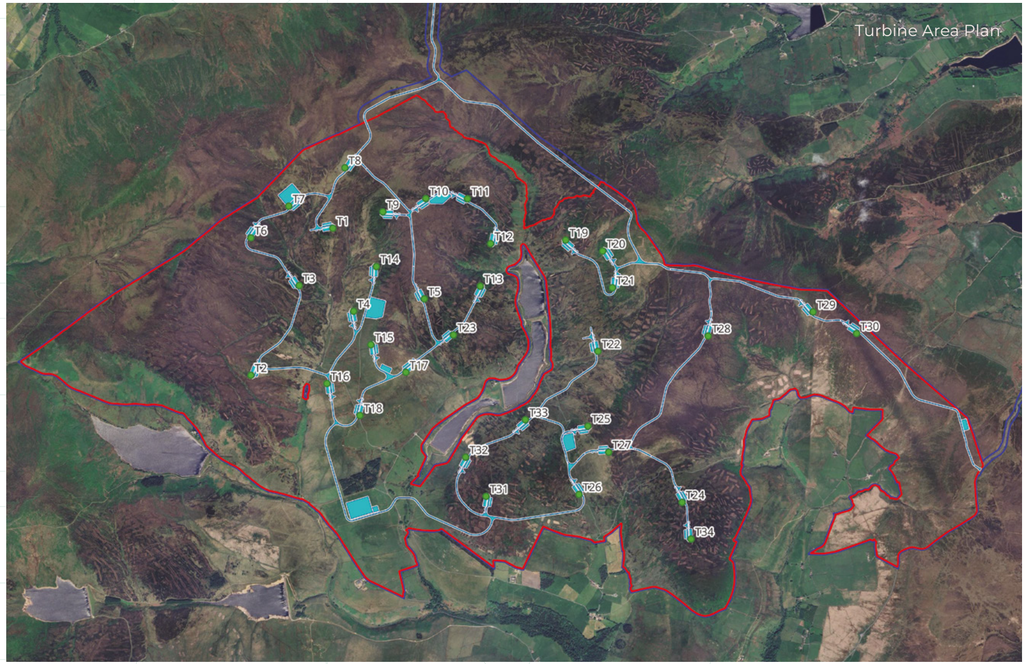
Abnormal Load Routes (AIL)

During the non-statutory consultation, we presented two possible AIL transport routes: a western option and an eastern option. Further technical and environmental work has confirmed that the western route is now the proposed AIL route as it best avoids impacts on sensitive environmental and heritage features. The western route from the A6068 comprises two proposed sections of 'offline' access on rural properties to minimise the potential impacts on environmentally sensitive areas, including identified heritage assets on School Road and Lancashire Moor Road. The offline sections of access road will be constructed to suitable highway specifications for AIL and are proposed to be retained for the duration of the life of Calderdale Energy Park, allowing for the future transport of wind turbine components if needed.

Although the western route is now preferred for AIL movements, both access routes remain under review and will continue to be refined through ongoing technical work and engagement.

These revisions to the design have been shaped by the feedback we received during the non-statutory consultation, as well as insights from our ongoing environmental and technical assessments. Your input plays a vital role in helping us design Calderdale Energy Park in a way that is sensitive to its surroundings and respects the unique character of the local environment.

2026 Turbine Layout



Turbines since scoping	Design change
1, 2, 3 & 4	Potential aviation impacts associated with Pole Hill radar site; potential LVIA impacts on residential properties at Widdop and potential construction and operational noise impacts on residential properties at Widdop. Changes made to address community feedback from non-statutory consultation and concerns raised by aviation consultees.
5	Potential aviation impacts associated with Pole Hill radar site and habitat constraints.
23 & 24	Potential impacts on priority habitats and deeper areas of peat.
33 & 34	To address LVIA feedback received during non-statutory consultation.

PEIR numbering	Scoping numbering	Key siting changes to Scoping turbine locations
1	39	No change.
2	37	Moved out of deeper peat and to avoid priority habitats.
3	New location	To compensate for removal of the original turbines 2, 3 & 4. New turbine locations were identified in areas that did not impact on deeper peat or bog habitats and did not present aviation risks.
4	New location	To compensate for removal of the original turbines 2, 3 & 4. New turbine locations were identified in areas that did not impact on deeper peat or bog habitats and did not present aviation risks.
5	40	No change.
6	6	Moved east downslope to mitigate potential impacts on Pole Hill and reduce overall aviation radar impacts.
7	7	No change.
8	8	Moved out of deeper peat.
9	9	No change.
10	10	Moved out of deeper peat and blanket bog.

PEIR numbering	Scoping numbering	Key siting changes to Scoping turbine locations
11	11	No change.
12	12	No change.
13	13	No change.
14	14	Relocated southeast to avoid blanket bog, deeper peat and to allow for new turbine 4 location.
15	15	No change.
16	16	No change.
17	17	No change.
18	18	No change.
19	19	No change.
20	20	Moved further south downslope and reduced in height to 150m tip height to mitigate potential LVIA setting impacts from Top Withens following feedback received at non-statutory consultation.
21	21	Moved further south downslope and reduced in height to 150m tip height to mitigate potential LVIA setting impacts from Top Withens following feedback received at non-statutory consultation.
22	22	Moved out of deeper peat and blanket bog. The hardstand for turbine T22 has been switched around to increase the distance from construction works to the Pennine Way as much as practicable.

PEIR numbering	Scoping numbering	Key siting changes to Scoping turbine locations
23	**41**	No change.
24	**35**	No change.
25	**25**	No change.
26	**26**	No change.
27	**27**	Moved out of deeper peat.
28	**28**	Moved west to avoid deeper peat.
29	**29**	No change.
30	**30**	Moved out of deeper peat.
31	**31**	No change.
32	**32**	No change.
33	**38**	No change.
34	**36**	Moved further north to reduce potential LVIA impacts raised at non-statutory consultation. turbine 4 location.

Key design considerations and associated changes since the non-statutory consultation include:
*All turbine numbers in the table below relate to the 2025 Calderdale Energy Park design.

Design consideration	Design change
Aviation Met Office radar and Landscape and Visual (residential)	Potential impacts on radar sites, including Pole Hill and potential landscape and visual and noise impacts on residential properties resulted in the removal of turbines T01-T05. T06 was moved east further down slope to reduce the relative tip height to avoid impacts on Pole Hill. Two new turbine locations were identified further north to replace the removed turbines T03 and T04.
Landscape and visual (residential)	Potential impacts on residential properties resulted in the removal of turbines T33 and T34. Turbines T35 and T36 have been repositioned further North (and renamed T34 and T24).
Landscape and visual (setting)	Potential impacts on Top Withens resulted in movement of turbines T20 and T21 further away and downslope of their original position and reduction in height from 200m to 150m tip height.
Peat depth	Phase 2 peat probing provided additional data on peat depths, resulting in removal of turbines T23 and T24 and micro-siting of numerous other turbine locations.
Blanket bog	National Vegetation Classification surveys (NVC) have supported previous UK Habitat ecology surveys resulting in micro-siting of turbines around areas of blanket bog. Proposed use of floated track to reduce impacts on bog has also been refined based on the updated survey results.
Public rights of way	Adjustments have been made to turbine T21 and T22 to minimise potential impacts on the Pennine Way. The hardstand for turbine T22 has been switched around to increase the distance from construction works to the Pennine Way as much as practicable.
Internal access	Internal access tracks have been redesigned to reduce the length and associated impacts of tracks.

Connecting Calderdale Energy Park into the National Grid

During the non-statutory consultation, we presented four potential connection options for connecting Calderdale Energy Park into the National Grid. These options were:

- A connection via Northern Powergrid at the Bradford West substation
- A connection via Electricity North West at the Rochdale substation
- A connection via NESO at a new substation north of Leeds
- A connection via Northern Powergrid at the Elland Road substation in Leeds

Due to the uncertainty on the exact location of a future Leeds North substation and the timings of the NESO grid Gate 2 reforms we decided after the scoping stage to only take forward a connection to the Bradford West substation as part of the PEIR assessment and requested a formal change to the Bradford West substation under the existing NESO Leeds North grid connection offer, as part of the Gate 2 reform process.

The Gate 2 process has been delayed by NESO and CWFL is anticipating formal approval of Bradford West substation connection between September 2026 and January 2027.

Grid Connection: How the Cable Route is being designed

We are currently investigating one potential underground cable route to connect Calderdale Energy Park to the electricity network at the Bradford West Substation. An initial route has been identified within what we call the Bradford West Cable Corridor.

This route is not final. It is being developed in close discussion with: National Grid Electricity Transmission (NGET), Northern Powergrid (NPG), statutory consultees, local authorities and landowners.

To reduce impacts on local communities and the environment, the draft cable corridor has been designed to avoid a number of sensitive areas wherever possible, including:

- **Sites of Special Scientific Interest (SSSIs)** – except along the A6033, where the cable would run within the existing road corridor that runs alongside the SSSI
- **Historic landfill areas and former quarries** – such as the former Thomas Crompton Buck Park Quarry
- **Woodland** – where the cable must pass beneath woodland, it would be installed using trenchless techniques such as Horizontal Directional Drilling (HDD)
- **Major watercourses** – all large crossings are avoided where possible; where necessary, crossings (such as Nab Water) will use HDD
- **Major A roads** – the route avoids significant roads, except along the A6033 where it remains within the existing highway corridor
- At Keighley Road and Whalley Lane in Denholme, HDD will be used to avoid road closures, and the route has been placed parallel to Whalley Lane to keep the road open throughout construction

This approach helps ensure that construction can take place safely while reducing disruption for residents, road users and the natural environment. This route will continue to be refined through detailed design, environmental and technical work and assessments and input from landowners, local authorities and statutory bodies.

Timescales and Grid Connection Reform

NESO is undertaking a review of existing grid connection offers, referred to as the Gate 2 process. Further details about the reform process can be found at **https://www.neso.energy/industry-information/connections-reform/about-connections-reform**

The connection for the Calderdale Energy Park has been given a Gate 2 Phase 2 priority slot, meaning it currently falls within the 2031–2035 connection window.

NESO's ongoing Connections Reform programme may influence the final connection point and timings. We expect to receive an updated connection offer between September 2026 and January 2027 (delayed by NESO from the end of September 2025), which will give much more clarity on our point of connection.

CWFL is aware that if NESO do not approve the requested change from Leeds North to Bradford West, then the project team will need to review the environmental assessment for the grid connection route and how the grid connection is incorporated into the DCO application.

Decommissioning

When the wind farm reaches the end of its operational life, a structured and carefully managed decommissioning process will take place. This ensures the site is restored responsibly, environmental impacts are minimised, and the area is left in a condition that supports its long-term future use.

A outline Decommissioning Environmental Management Plan will be submitted as part of the DCO application. This plan will set out the process to responsibly decommission the site. This plan ensures the whole process is both environmentally responsible and aligned with best practice, collaboration with the landowner and stakeholders will guide effective restoration of the site.

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How decommissioning will work

Removal of Turbines and Infrastructure

All above ground components of wind turbines and associated infrastructure will be dismantled and removed from the site as part of any decommissioning works. Components will be taken away using the same access routes as the construction phase to ensure they are safely removed and to minimise disruption on the local community.

Removing turbines and other visible structures will eliminate any potential long term visual effects on the local landscape. Any short term disturbance during decommissioning will be temporary, and protections used during construction will continue to apply if any excavation is required. Remaining infrastructure will be suitably covered to ensure it fits sensitively within the restored environment.

Recycling and Waste Reduction

Where possible, materials from the turbines and supporting infrastructure will be recycled. Metals, composites and other recoverable elements will be sent to certified recycling centres, helping reduce waste and maximise the reuse of valuable resources where possible.

Land Restoration

Once structures are removed, the land will be reinstated. This includes reinstating soils, re-establishing vegetation, and ensuring the area blends back into its natural surroundings. Any tracks or hardstanding areas that don't need to be removed may be softened or covered with soil and grass, reducing unnecessary ground disturbance while encouraging natural regeneration.

Our aim is simple: to hand the land back in a condition that reflects its original character or supports alternative uses agreed with landowners and local authorities.

Noise, Vibration and Air Quality

Decommissioning will generate some noise, but at lower levels than construction. These effects will be short term and managed through the decommissioning plan, which will set clear measures to control sound, dust and vehicle movements. Current assessments show no significant noise, vibration or air quality impacts are expected during this stage.

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Calderdale Energy Park and the Environment – Our EIA work

Calderdale Energy Park and the Environment – Our work so far

What is the Environmental Impact Assessment (EIA) and why is it important?

The EIA is a systematic and impartial process used to identify, predict and assess potential environmental effects arising from Calderdale Energy Park. It provides robust, evidence based information to decision makers when considering an application for development consent. The purpose of the EIA is to ensure that environmental factors are fully integrated into project design and decision making from the outset, helping to prevent, reduce and, where possible, offset any likely effects, while also maximising potential environmental and community benefits.

EIA Scoping and progress to date

The EIA Scoping Report was submitted to the Planning Inspectorate (PINS) in September 2025 with the Scoping Opinion received in October 2025. These documents identified the topics requiring detailed assessment, which have been shaped by consultation, on-site investigations, and stakeholder engagement. As such, the topics listed on page 31 are being thoroughly assessed as part of the EIA with more information found in the relevant PEIR chapter.

Preliminary Environmental Information Report (PEIR)

The PEIR provides an early overview of the likely significant environmental effects of Calderdale Energy Park based on initial surveys and assessments. It outlines potential impacts across topics such as landscape, ecology, heritage, transport, and socio-economics, and identifies where further technical work is underway. Published at this stage to support statutory consultation, the PEIR enables stakeholders and the community to review emerging proposals, offer feedback, and help shape the final Environmental Statement (ES) that will accompany the DCO application.

The Applicant notes that there are elements of assessment requested in the Scoping Opinion that have not been included at the PEIR stage. As requested in the Scoping Opinion, where these elements are not addressed in the PEIR, they will be included in the assessment for the Environmental Statement (ES).

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Chapter 1: Introduction (including glossary)

Chapter 2: Environmental Impact Assessment

Chapter 3: Description of the PEIR Boundary and Surrounding Area

Chapter 4: The Proposed Development

Chapter 5: Alternatives and Design Evolution

Chapter 6: Legislative and Planning Policy Context

Chapter 7: Methodology for the Preliminary Environmental Information Report

Chapter 8: Biodiversity

Chapter 9: Ornithology

Chapter 10: Hydrology and Hydrogeology, Peat and Soils

Chapter 11: Carbon and Climate Change

Chapter 12: Landscape and Visual

Chapter 13: Cultural Heritage

Chapter 14: Access, Traffic and Transport

Chapter 15: Noise and Vibration

Chapter 16: Air Quality

Chapter 17: Socio-economics and Tourism

Chapter 18: Aviation and Radar

Chapter 19: Human Health

Chapter 20: Major Accidents and Disasters

Chapter 21: Shadow Flicker

Chapter 22: Materials and Waste

Chapter 24: Other Matters (Land Contamination and Agricultural Land Classification)

Chapter 23 Cumulative Effects:

Geology and Peat

The landscape around Calderdale Energy Park is shaped by upland peatlands and underlying millstone grit geology. These features are central to the character and sensitivity of the site, and they have played a major role in shaping how the design has evolved.

Extensive surveys have confirmed that much of the site is underlain by peat at variable depths, with areas of modified, drained and eroded peatland alongside pockets of intact peat. Beneath this, the bedrock largely comprises sandstones and mudstones of the Millstone Grit Group. This combination means the area responds slowly to changes in water movement and can be sensitive to disturbance.

How This Has Shaped the Design

The design of Calderdale Energy Park has evolved through two stages of peat probing, hydrological surveys and ground condition assessments. These have helped us understand where peat is deepest, where it is most vulnerable, and where geological or slope constraints exist. As a result:

- Infrastructure has been moved away from deeper peat wherever possible, reducing the amount of required excavation.
- Track alignments have been adjusted to follow shallower peat corridors, natural ridgelines and stable ground conditions.
- Floating tracks are proposed in suitable locations to avoid cutting into peat altogether.
- Watercourse buffers and landform constraints have informed turbine siting, minimising interference with natural drainage patterns and reducing erosion risk.
- Areas identified as having a greater natural susceptibility to peat instability have been designed around, with infrastructure removed or redesigned to avoid them.

This iterative approach ensures that the design responds directly to local ground conditions rather than applying a one-size-fits-all solution across the entire site.

Managing Peat and Protecting the Landscape

Peat is one of the South Pennines' most important natural assets. It stores carbon, supports unique wildlife and plays a vital role in regulating water across the uplands. Because Calderdale Energy Park sits within an extensive peatland landscape, a dedicated Peat Management Plan is being developed to ensure that peat is protected, carefully handled and, wherever possible, used to improve the condition of degraded peatlands across the site. This will be prepared as an outline plan for the DCO application with the final plan prepared following consent. The plan will:

- Minimise peat excavation through careful micro-siting based on ongoing survey data.
- Reuse excavated peat within the site, including reinstating temporary works areas and supporting peatland restoration.
- Maintain natural water movement across peatlands, using appropriate drainage design to avoid over drying peat or diverting flows unnaturally.
- Avoid steep or unstable slopes, with detailed stability assessments used to refine the layout and construction approach.
- Ensure careful handling and storage of peat, ensuring it remains wet and intact to prevent carbon loss.
- Use permeable or low impact construction methods where feasible to maintain the hydrology that keeps peatlands healthy.

Excavation and Reinstatement

- Around 560,000m^3 of peat may be disturbed during construction. Detailed modelling shows that all excavated peat can be reused onsite, with a balanced peat mass. Temporary excavations will be fully reinstated and borrow pits and compounds will be restored with up to 2m of peat.

Good Practice and Long-Term Management

- Strict measures will control how peat is excavated, stored and reinstated, including careful handling of turves, minimum drying, and separating surface and deeper layers. A long-term monitoring programme will track vegetation recovery, stability and moisture levels for at least five years after construction.

As further detailed surveys and design refinement take place ahead of the Environmental Statement, we will continue to:

- Improve the accuracy of peat depth mapping.
- Identify additional opportunities to avoid areas of deep or sensitive peat.
- Refine track and turbine locations to reduce earthworks.
- Apply updated stability, hydrological and geological assessments to inform construction methods.

This ensures that each design step reduces environmental impact, reflects the best available evidence, and is aligned with good practice for developments in peatland landscapes.


Stock image

Hydrology and Hydrogeology

Walshaw Moor and its surrounding upland catchments form a complex hydrological environment defined by peatland habitats, surface water features, and underlying groundwater pathways. Several waterbodies and watercourses are present within the site boundary, contributing to wider catchment systems and playing an important role in both natural drainage and peatland health.

Our proposals recognise the environmental sensitivity of these landscapes and have been developed to ensure that Calderdale Energy Park protects and, where possible, enhances existing water environments. This includes careful planning of infrastructure placement, drainage design, and long-term water management tailored to the characteristics of upland peat systems.

Protecting Peatland Hydrology

Peatlands rely on stable water levels to maintain their structure, ecological function, and carbon storing capacity. Construction and operation activities have therefore been designed to safeguard these conditions.

Key measures include:

- Designing water management strategies that enhance water retention within peat systems.
- Avoiding interruption of natural drainage channels and minimising changes to existing overland flow.
- Using floating or low impact track construction where appropriate to reduce ground disturbance.
- Incorporating detailed site-specific hydrological modelling to understand and mitigate potential effects.

Watercourse Management & Surface Water Protection

The development area contains a network of watercourses and wetland features. These will be protected through a combination of design and mitigation measures intended to maintain natural flow paths and protect water quality.

Our approach includes:

- Buffering watercourses and avoiding direct placement of infrastructure within sensitive zones.
- Implementing pollution prevention controls during construction (e.g., silt traps, settlement ponds, controlled washout areas).
- Using sustainable drainage systems (SuDS) appropriate for upland environments to manage runoff rates.
- Monitoring hydrological conditions throughout the project lifecycle.

Groundwater & Hydrogeology

Although groundwater movement in peat is generally slow and shallow, underlying geological formations can influence drainage patterns and localised recharge. To mitigate potential adverse effects on groundwater regimes, the project will:

- Conduct targeted hydrogeological surveys to establish baseline conditions – these are being progressed for the ES assessment.
- Ensure excavations, borrow pits, and foundation works do not disrupt groundwater pathways.
- Use best practice construction methods to prevent contamination and maintain natural infiltration.

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Commitment to Ongoing Assessment

Hydrology and hydrogeology assessments form a central part of the PEIR and will continue to be refined as survey data, technical modelling and stakeholder feedback evolve.

These assessments will support the development of a suite of mitigation measures designed to prevent increased flood risk on or off site, maintain healthy peatland systems and protect water quality and ecosystem function.

Landscape and Visual

The evolving design of Calderdale Energy Park has been shaped through a detailed landscape and visual assessment, stakeholder engagement, and fieldwork across the South Pennines. At each stage, the design has been refined to reduce visibility, reduce effects on sensitive landscapes, and respond to local character.

Design Evolution

- Edges of sensitive moorland, steep slopes have been avoided in the new design.
- Access routes have been aligned to follow existing tracks where practicable, avoid steep cuttings and limit impacts on valley sides.
- The Bradford West cable corridor has been routed to avoid notable landscape features, including gulleys, woodland and historic features, with trenchless methods used where disturbance would otherwise be significant.
- Where possible, temporary construction areas have been located to use natural screening where available.
- Viewpoints from National Parks, National Landscapes (AONBs), and Special Landscape Areas (SLAs) have been considered as we refined the design.
- Turbines have been set back from the most sensitive skyline relationships with the Yorkshire Dales, Forest of Bowland and Peak District.

Reducing visual effects

- Turbine colour will be a light, neutral matt finish to reduce glare and help them to blend in with the sky.
- CWFL is seeking to agree a reduced aviation lighting scheme with the Civil Aviation Authority (CAA). This would involve lights being installed only on an agreed number of turbines and at agreed locations, rather than across the entire site, while still meeting aviation safety requirements.
- Consistent turbine layout helps reduce visual clutter and creates an ordered appearance.

Reducing Landscape Change

- Moorland restoration will take place around tracks and crane pads using local seed mixes and vegetation to blend new surfaces back into the moorland context.
- We will be planting native species in appropriate lower-lying areas, avoiding non-native woodland in open moorland landscapes.
- After construction, stone walls, drainage grips and landforms will be reinstated.

During construction

- The compounds will be sited away from open viewpoints.
- We will reinstate the site progressively throughout construction, this will limit the visible disturbance at any one time.
- Lighting will be strictly controlled to reduce night time effects during construction.

A Landscape & Ecological Management Plan (LEMP)

The LEMP will guide ongoing management of vegetation and long-term moorland restoration. Habitat restoration will support peatland recovery, improve landscape condition and reduce long term change.

Landscape and visual mitigation measures

Calderdale Energy Park lies outside all nationally designated landscapes, and although the turbines will be visible from some areas, the design has been carefully shaped to sit sensitively within the upland setting. Some nearby landscapes and viewpoints may experience noticeable change, particularly closest to the turbines, but this will be fully explored at the ES stage so any effects can be clearly understood and appropriately managed through the final design.

The turbines will form a new feature in views from certain nearby settlements, public rights of way and a small number of close range properties, especially where open, elevated views exist. These effects will be assessed in detail within the ES to provide a clear and transparent understanding of how the project relates to its surrounding landscape.

Cultural Heritage

The Cultural Heritage assessment work we have been undertaking considered how the project may affect buried archaeology, historic buildings, farmsteads, and wider heritage landscapes, both through physical works and changes to views or setting.

The assessment considered:

- Archaeological remains within the turbine area and along access and cable routes
- Listed buildings, conservation areas, historic farmsteads, and monuments in the wider landscape
- Heritage settings, including views, noise and movement during construction and operation
- Specific cultural landscapes, including places linked to the Brontë family

Study areas extended from within the site boundary out to 30 km for highly designated assets.

Archaeology

- The upland moorland is known to contain Mesolithic flint scatters and deep peat deposits with valuable evidence.
- Some historic farmsteads (e.g., Lower Good Greave) lie within areas where groundworks are proposed.
- Along access routes, there is potential for:
  - Sections of a Roman road
  - Remains of a medieval deer park
  - Former quarries, boundary stones and small-scale industrial features
- Because the exact location of many remains is not yet confirmed, a precautionary approach has been taken.

Historic Buildings & Settlements

Within and around the site are several historic structures including:

- Grade II listed laithe houses such as Holme Ends Farmhouse
- Boundary stones, 18th–19th century farmsteads, and ruins
- Heritage settlements including:
  - Wycoller Conservation Area (with vaccary walls and bridges)
  - Haworth, Hebden Bridge and Heptonstall Conservation Areas
  - Top Withens, associated with Wuthering Heights
  - Stoodley Pike Monument

During Construction

Temporary noise, lighting and vehicle movements may be noticeable at times. However, these effects will not harm the significance of any designated heritage assets. This is because:

- Effects are short-term
- Assets are hundreds of metres or kilometres from activity
- Key heritage values (architectural, historic, literary associations) remain unaffected
- There is the potential for disturbance and physical impacts to archaeological remains during construction. However, potential effects will be managed through implementation of the mitigation measures described on page 40.

During Operation

Some turbines will be visible from parts of the surrounding upland landscape, including locations such as Wycoller, the northern edge of Haworth, the Hebden Water farmsteads, Heptonstall and Stoodley Pike.

However, the views from these assets are distant (often 4–8 km away). Many of the assets are located in valleys or sheltered terrain which offer some natural screening. Heritage significance is driven primarily by architecture or history, not panoramic views. The assessment concludes that there will be some small changes to the setting of some heritage assets but all these effects are considered minor and not significant.

Cultural Heritage Mitigation Measures

To protect archaeology and historic features during development of Calderdale Energy Park, a combination of design measures and managed procedures will be applied throughout construction, operation and decommissioning. These include:

- The design of Calderdale Energy Park will avoid heritage features wherever possible including listed structures at Holme End and Wycoller.
- Cables will be buried to ensure there is no permanent change to the settings of heritage assets. Where possible these will follow existing roads to minimise ground disturbance.
- Project layout shaped to avoid known archaeological sensitivity.

During construction, all works will be guided by a Cultural Heritage Management Strategy. This strategy sets out how archaeological remains will be identified, protected and recorded, and includes a programme of work carried out before ground is broken.

This may include:

Pre-Construction (post consent) Investigations

- Walkover surveys to check the presence and condition of known heritage features.
- Geophysical surveys to detect buried remains such as archaeological structures, pits or former trackways.
- Targeted trial trenching or test-pitting in areas with potential for archaeology, helping to confirm whether remains are present and how best to protect them.
- Geoarchaeological and environmental sampling, including peat coring, to recover evidence such as pollen, plants and sediments from past landscapes.
- Historic feature recording, such as surveys of farmsteads, vaccary walls, boundary stones, and small-scale industrial remains prior to any unavoidable disturbance.

On-Site Protection During Construction

- A Chance Finds Procedure will ensure that if unexpected archaeology is uncovered, work will pause while specialists assess, record and, where possible, preserve the find.
- Preservation in situ will be prioritised; where this is not possible, preservation by record (excavation, photography, surveying and analysis) will ensure important information is not lost.

Operational Measures

- No new excavation is expected during operation which minimises the risk to buried archaeology.
- Monitoring may be undertaken where necessary to ensure infrastructure does not adversely affect peatland deposits or groundwater conditions that help preserve archaeological remains.
- Any cable maintenance will reuse existing trenches, avoiding further disturbance.

Together, these measures ensure that important archaeological and historic features are identified, protected and, where necessary, professionally recorded throughout the lifecycle of the Calderdale Energy Park.

Access, Traffic and Transport

The construction of Calderdale Energy Park will mean there is a temporary increase in construction traffic on local roads. We know how important road safety, travel reliability and community access to the moorland are to local residents, so we're planning carefully to minimise disruption during the build.

How the Site Will Be Accessed

During the non-statutory consultation, we presented you with potential access points for Calderdale Energy Park. In response to your feedback and the results of ongoing technical and environmental work we have refined these options further:

Western Access - via A6068: this route would be used by Heavy Goods Vehicles (HGVs) delivery vehicles, general construction traffic construction workforce, and Abnormal Indivisible Load (AIL) traffic associated with delivering turbine components.

This will be the primary entry point for bulk material deliveries and the transport of turbine components, this provides the most suitable corridor for the transport of large turbine components, allowing construction traffic to reach the turbine area without passing through constrained villages or unsuitable local roads.

An offline access route has been proposed from the A6068 to Lancashire Moor Road. The initial offline corridor has been updated since Scoping and with an option to extend the route north of Height Laithe Farm to avoid potential impacts on vaccary walls and the Atom Panopticon car park. All access junctions will be designed and constructed in line with Lancashire County Council standards and private access tracks are proposed to avoid narrow or restricted sections of the road and ensure deliveries can pass safely. This access route has been designed sensitively to reduce impacts on the Trawden Forest Conservation Area and vaccary walls south of Lancashire Moor Road.

Eastern Access - via the A6033: The Eastern Access Route primarily supports staff vehicles, vans, lighter construction traffic and a small number of HGVs. It also forms the grid connection corridor for underground cables to the Bradford West Substation.

An offline access road connection is proposed between the A6033 and High House Edge Lane adjacent to the underground cable corridor. The route is then proposed to extend down to Halifax using the existing highway network. This eastern access route provides a second access point to distribute HGV and construction worker traffic. There may be need to make localised road improvements along the route between High House Edge Lane and Cold Edge Lane adjacent to the Ovenden Wind Farm. The need for localised road improvements is still under review and will be discussed with the highway authority as part of the design development.

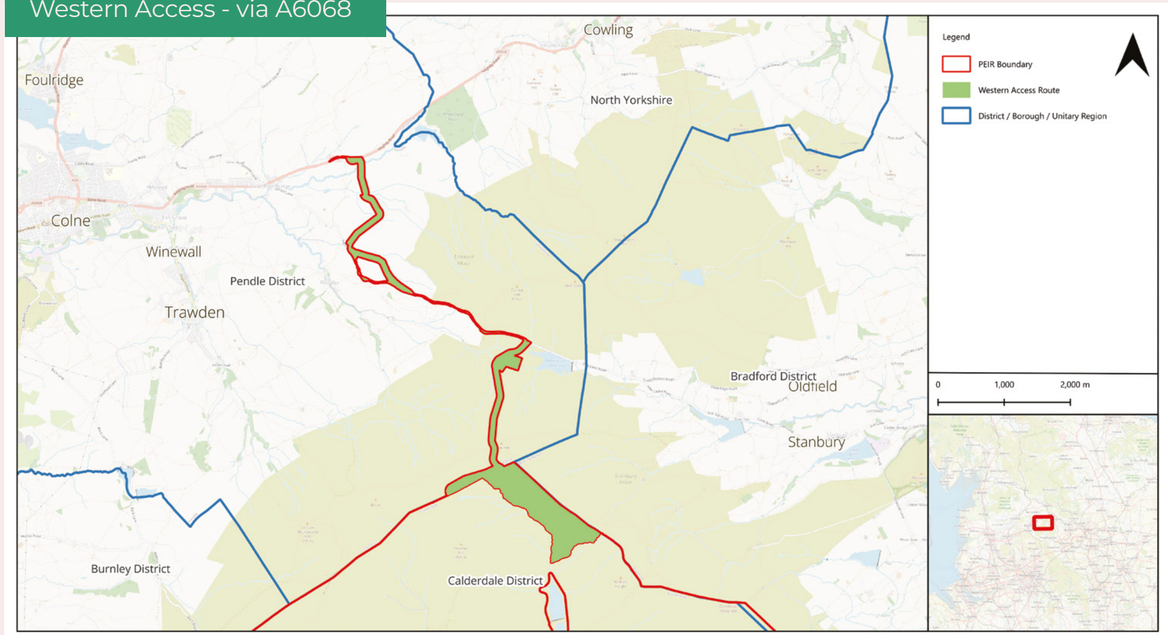
This route makes use of existing roads wherever possible to minimise ground disturbance.

How the Two Routes Work Together

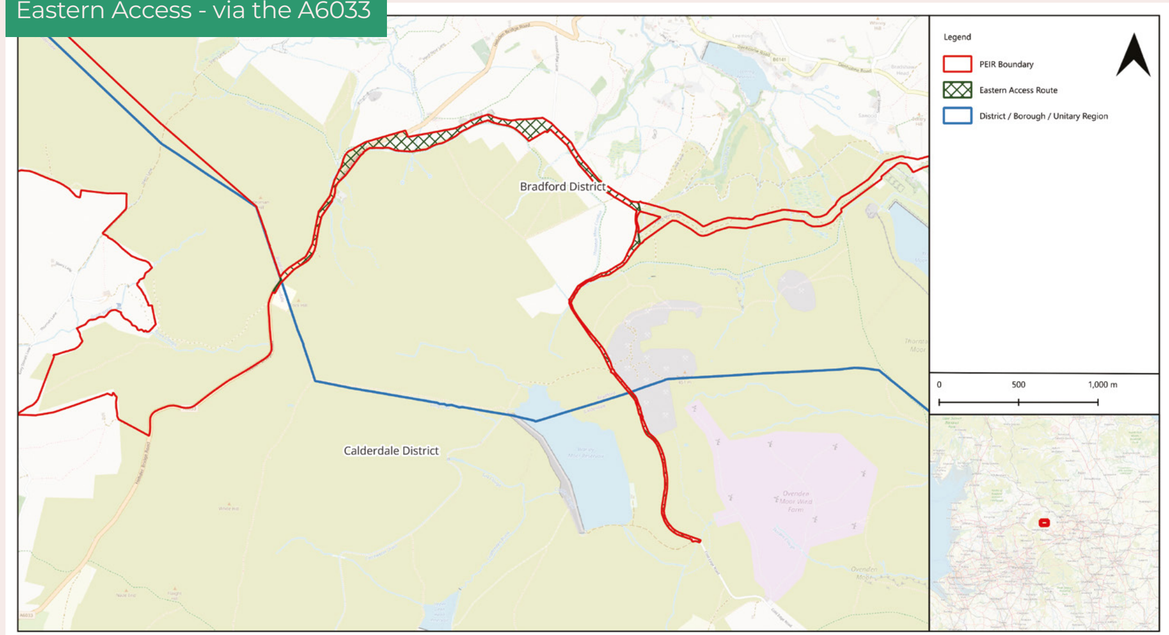
The access strategy has been deliberately designed to separate heavy construction traffic from lighter movements and to distribute activity across the network.

This approach reduces congestion at any single access point, it minimises safety risks for walkers, cyclists and horse riders, limits environmental and heritage impacts and ensures the delivery of oversized loads can be controlled and escorted properly.

Western Access - via A6068



Eastern Access - via the A6033



Noise and Vibration

The work we have done so far

To understand existing noise conditions, specialist consultants carried out detailed background noise monitoring at locations around the moorland between March and May 2025. These surveys recorded natural sounds such as wind in vegetation, birdsong, running water, and distant road traffic. These measurements form the basis for assessing future noise.

To understand potential noise impacts of Calderdale Energy Park we then modelled noise from a number of activities with the noise monitoring forming the baseline conditions for our assessment. We then modelled noise from:

- Construction activities
- Turbine operation
- Decommissioning activities
- Cable installation along the Bradford West Cable Corridor
- Use of the Eastern and Western Access Routes

Construction Noise and Vibration

During construction, activities such as foundation works, track building, and cable installation will produce some temporary noise. However, noise generating activities will be kept as far as practical from homes and sensitive locations and work will mostly take place during standard daytime working hours.

Construction activities on Calderdale Energy Park will be subject to a strict Construction Environmental Management Plan, using measures such as:

- Well maintained, quieter plant and machinery
- Temporary acoustic barriers where needed
- Locating generators and pumps away from properties
- Minimising drop heights when moving materials
- Switching off engines when not in use

Construction vibration is also expected to be very low, as no high-vibration techniques (such as piling or blasting) are planned near homes or sensitive receptors. The assessment concludes that, with these measures in place, no significant construction noise or vibration effects are expected.

Operational Noise

Once operational, the main source of noise will be the wind turbines themselves. All turbines must meet strict national noise limits to protect the amenity of nearby residents. The design of Calderdale Energy Park has been refined to ensure adequate separation between turbines and residential properties, and the results of our noise assessment shows that:

- Turbine noise will remain well within national limits during both daytime and night time periods.
- Low frequency noise, infrasound, and amplitude modulation are not expected to result in significant effects.
- A limited number of turbines will use “turbine mode management” to ensure the wind farm stays within agreed Site Specific Noise Limits, helping keep noise levels low for nearby communities.

As a result, no significant noise effects are predicted during the operational phase of Calderdale Energy Project.

Noise Along the Bradford West Cable Corridor

We recognise that there will be some noise created during the construction phases along the cable route. Cable installation is carried out using standard trenching techniques within existing road corridors wherever possible. To minimise disruption:

- Some temporary noise will occur during construction along the cable route; however, works will use standard trenching methods within existing road corridors wherever possible.
- Most works will take place within the existing highway boundary, limiting proximity to homes.
- Only small teams and light machinery are required for cable installation.

Horizontal Directional Drilling (HDD)

How We Reduce Noise

Across all stages of the project, we will:

- Use good practice construction methods
- Maintain clear communication with communities
- Position equipment to reduce local impacts
- Avoid night time working where possible
- Use quieter technology and well maintained machinery
- Follow national guidance and local requirements throughout

We are committed to keeping noise levels as low as possible. The preliminary environmental assessment indicates that, with the measures already built into the design and those secured through management plans, no significant noise or vibration effects are expected at any stage of the Calderdale Energy Park.

Air Quality

How We Are Assessing Air Quality

Air quality is an important consideration when planning and delivering large infrastructure projects. For the Calderdale Energy Park, we have carried out a detailed review of how construction, operation and future decommissioning could affect local air quality.

Our preliminary assessment shows that no significant effects on human health are expected at any stage of the project. Potential effects on designated ecological sites are being assessed jointly through the Air Quality and Biodiversity chapters, with further detailed work to be completed before submission of the Environmental Statement.

Our assessments looked at:

- Existing air quality around the moorland and nearby roads
- Dust from construction activities
- Emissions from construction vehicles and machinery
- Traffic using the eastern and western access routes
- Potential impacts on nearby designated ecological sites
- How air quality will change by the time construction begins

We also reviewed monitoring data from Calderdale, Bradford, Pendle and Rochdale to understand local air quality trends. Across the wider study area, air quality is generally good, with pollutant levels well below national objectives outside towns and built-up areas.

Construction: Managing Dust and Emissions

Construction will generate some temporary dust and emissions. These will be controlled through an Construction Environmental Management Plan (CEMP), which will include:

- Water suppression during dry/windy conditions
- Covering or managing stockpiles
- Using modern, cleaner machinery
- Switching off engines when not in use
- Wheel washing and surfaced access points
- Locating equipment away from homes and well used paths where possible

With these measures in place, no significant effects on air quality are expected.

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Construction Traffic

During the busiest month of construction, there will be an increase in HGVs and light vehicles travelling to the site. However:

- Traffic will be split across two access routes
- Vehicle numbers are not expected to meaningfully affect roadside air quality
- Current pollutant levels along the affected routes are well within national limits

Further traffic modelling will be completed for the Environmental Statement, but at this stage, with mitigation measures in place no significant effects on human health are anticipated.

Protecting Sensitive Ecological Sites

Parts of the Project lie within the South Pennine Moors Special Areas of Conservation (SAC) / Special Protection Area (SPA) / SSSI, which are sensitive to nitrogen and dust deposition. We are taking a cautious and evidence-led approach through:

- Screening construction and traffic emissions against Natural England thresholds
- Considering both nitrogen oxides (NOx) and ammonia, in line with national guidance
- Assessing dust risks for habitats within 50m of works
- Using modern plant and minimising movement where habitats are closest

Further detailed modelling will be carried out for the Environmental Statement to ensure that no significant effects occur on designated habitats, or that appropriate mitigation is secured if required.

Operation

Operational impacts on air quality will be minimal:

- Wind turbines produce no emissions
- Only occasional maintenance visits are required
- No BESS or combustion equipment is included

Our Commitment to Good Air Quality

We are committed to ensuring that the Calderdale Energy Park is delivered responsibly. Our approach includes:

- Using best practice dust and emissions control
- Routing and scheduling construction traffic to reduce local impacts
- Working closely with local authorities, Natural England and stakeholders
- Applying mitigation wherever needed to protect people and the environment

Ornithology and Ecology

Walshaw Moor and the South Penine Moors are important landscapes for a variety of bird species, many of which are protected under national and international legislation. The area supports both resident and migratory birds, offering feeding, breeding, and resting opportunities. Understanding the presence and behaviour of birds in the area is a vital part of planning Calderdale Energy Park responsibly, ensuring that the natural environment and its wildlife are respected.

As part of the EIA, extensive ornithological surveys have been undertaken to understand how the construction, operation, and decommissioning of Calderdale Energy Park may affect these species. As part of the assessment works, potential impacts on bats have also been considered. This work ensures the design is shaped by up-to-date ecological evidence and that appropriate mitigation and compensation are built into the project from the outset.

During Construction

Our initial assessments show that some habitats within the South Pennine Moors may be affected during construction, which could influence species such as oystercatcher, hen harrier, marsh harrier, kestrel, red kite, barn owl, skylark and meadow pipit. This is due to temporary construction activity as well as some areas that may change more permanently.

To address this, a restoration and peatland recovery programme is being developed. This work aims not only to offset impacts but also to deliver long-term improvements for wildlife. As we complete final surveys, we are refining our understanding of how dust, hydrology, nitrogen and other factors may influence habitats, which will be confirmed in the ES.

Construction activity also has the potential to temporarily disturb certain bird species. We are refining noise and disturbance modelling to understand how many breeding pairs might be affected and what measures will best reduce disruption.

We have also looked at whether birds from the North Pennine Moors SPA might move into the area as a result of the project. The available desktop evidence so far shows this is unlikely due to distance and limited habitat connectivity, and this will be confirmed in the ES.

Operational Phase

Once operational, changes in land management across the Walshaw Moor Estate may influence some moorland and open ground species, whilst creating opportunities for woodland and scrub associated birds. A long term land management and monitoring strategy is being developed to help species adapt and to ensure habitats improve over time.

Some birds naturally avoid tall structures, so we are refining our modelling to understand how species might move around the turbines. We are also undertaking detailed collision risk modelling, which will be finalised once the turbine specifications are confirmed, ensuring the assessment is as accurate as possible.

Carbon and Climate Change

Climate change is a key consideration for Calderdale Energy Park. Our assessments on climate change have focussed on two things: how the project will help reduce greenhouse gas (GHG) emissions, and how resilient it will be to future climate conditions. The assessment also considers whether climate change could amplify other environmental effects.

Responding to Climate Change

The assessment also considers how future weather patterns - such as higher temperatures, more intense rainfall and increased storminess - could affect the project over its lifetime.

Based on UK climate projections:

- All turbines and infrastructure will be designed to national standards that already factor in changing climate conditions.
- Drainage and water management measures, including sustainable drainage systems (SuDS), help manage heavy rain.
- Heat resistant materials and components will be used where needed.
- Operational procedures include weather monitoring, worker safety plans, and maintenance regimes designed for future climate conditions.
- The assessment concludes that no significant risks have been identified, and the project is expected to remain resilient in a changing climate.

In Combination Climate Change Effects

As the climate changes, some environmental impacts can worsen - for example, flooding or habitat stress. The assessment checked whether climate change could intensify any of the project's effects on topics such as ecology, hydrology, transport or human health.

Across all topics:

- No significant in combination effects were identified.
- Future climate conditions do not alter the conclusions made in the project's environmental assessments.

Cutting Greenhouse Gas Emissions

Wind energy plays a vital role in the UK's pathway to Net Zero. Calderdale Energy Park will supply clean electricity that would otherwise come from fossil fuels - mainly natural gas power stations.

The detailed whole-life carbon assessment shows that:

- Over its 35-year lifetime, the project is expected to reduce UK greenhouse gas emissions by almost 3 million tonnes of CO_2 compared to natural gas generation.
- Most project emissions arise from the manufacture of turbines, cables and other components, rather than day-to-day operation.
- Even when all construction, operation and decommissioning emissions are counted, the project still delivers a significant net reduction in carbon emissions.

The Climate Change assessment finds that:

- The project will have a significant beneficial effect on reducing greenhouse gas emissions.
- The proposed design includes robust measures to remain resilient in future climate conditions.

Population and Health

As part of our Preliminary Environmental Impact Assessment work, we have undertaken a human health assessment based on the latest guidance. This work looks closely at how Calderdale Energy Park could influence people's health and wellbeing across nearby communities - both during construction and once the project is operating.

To build a complete picture we looked at health and population data using covering:

- General health status
- Life expectancy
- Prevalence of long-term conditions
- Deprivation and income
- Vulnerable groups such as older adults, children and young people, and people with chronic illnesses

This helped us understand which communities may be more sensitive to change. We also considered national policy, including the National Policy Statements for Energy, Local Plans across Calderdale, Bradford, Pendle and Burnley, and NHS guidance on tackling inequalities and improving long-term health outcomes.

Key Findings

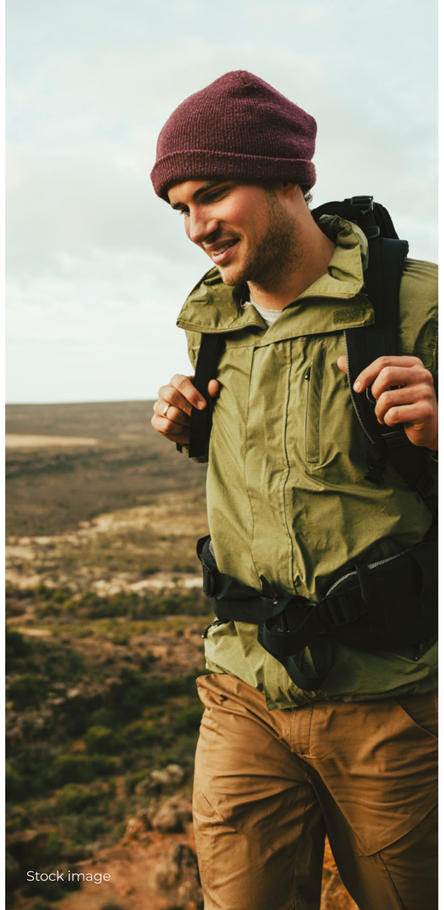
Access to the outdoors

Construction may temporarily affect access to public rights of way, open access land and common land. To mitigate this we will provide temporary alternative routes and any permanently affected land will be compensated with a suitable replacement.

Community wellbeing, identity and sense of place

Changes to a familiar landscape can affect how people feel about where they live. Some temporary construction activity (machinery, compound areas, lighting) may be visible from parts of the surrounding area.

For the operational phase, the turbines will create long-term noticeable changes to local views and the landscape, especially within about 10 km and for properties or public routes with direct, open views. While responses are highly subjective, some people - particularly those with strong attachment to the moorland setting or cultural associations like the Brontë landscape - may feel a change in sense of place or identity.



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While operational changes will alter parts of the landscape, these effects are not expected to translate into wider population-level impacts. Access to the moorland and PRoW network will remain, people typically adapt to visual change over time, and similar infrastructure is already present in the wider Pennine setting.

Overall, while some individuals may experience a shift in their personal "feeling of place," these effects are anticipated to remain limited and not of a scale that would affect community-wide wellbeing.

There is potential for impacts to tourism during the operational phase. This is still to be assessed further, with more information to be published at the ES stage.

Housing

At this stage, our assessments indicate that no likely significant effects on local housing or population health. Housing across the study area is generally more affordable than regional and national averages, and any temporary workforce demand during construction is unlikely to place meaningful pressure on local housing, including for vulnerable groups.

Jobs, income and skills

Calderdale Energy Park will bring, around ***193 job years***[1] of construction employment, local training and skills and development, supply chain benefits for businesses. These opportunities can positively affect health by supporting financial stability and wellbeing.

There is potential for impacts to tourism during the operational phase. This is still to be assessed further, with more information to be published at the ES stage.

Local healthcare services

We reviewed whether temporary construction workers might add pressure to local GPs or hospitals.

- Most workers will remain registered with their usual GP
- Any increase in demand on local NHS services will be very small

A positive contribution to public health

When operating, Calderdale Energy Park will produce clean renewable energy, helping to:

- Cut carbon emissions
- Improve energy security
- Reduce the risks associated with energy price spikes and energy insecurity
- Support essential services, homes and organisations

The findings of the Human Health assessment shows that across all stages of the project the evidence shows no likely significant adverse effects on population health. Where temporary changes may occur, these effects are limited in scale, short-lived, and managed through well established industry best practice and clear commitments to communication with the community.

Alongside this, the project offers meaningful benefits - from employment and skills opportunities to the wider public health gains that come from generating clean, reliable renewable energy. As the UK strengthens its low-carbon energy system, these contributions become increasingly important for community resilience and long-term wellbeing.

1. "193 job years" means the equivalent of 193 full-time jobs lasting one year. It's a way of showing total employment created over the whole construction period — for example, this could mean around 40 full-time jobs each year over five years, or any similar combination.

Aviation

Understanding how Calderdale Energy Park interacts with aviation and radar systems is an important part of the assessment process. Our early work follows Civil Aviation Authority (CAA) guidance and considers nearby airports, military activity, radar infrastructure and established flight procedures. This ensures the project can be delivered safely and without disruption to aviation operations.

How We Assess Aviation

To understand potential effects, we have reviewed a wide area around the site, using national aviation data, specialist radar modelling and assessments carried out by organisations responsible for airport flight procedures. This has involved early engagement with Leeds Bradford, Manchester and Blackpool Airports, NATS/NERL, the Ministry of Defence (MoD) and the Met Office.

The site itself sits on high ground between Bradford and Burnley in largely uncontrolled airspace below 3,500 feet, with controlled airspace for major airports above that. It also lies within a military low-flying corridor and in areas safeguarded for airport flight procedures and radar.

What We've Found So Far

Our preliminary assessment indicates that the project can be safely integrated into the local and regional airspace environment.

For civil airports, Blackpool Airport's instrument flight procedures (IFPs) contractor has confirmed that the Proposed Development will have no effect on the airport's IFPs. Manchester Airport has confirmed that the Proposed Development will have no effect on their IFPs. Some interaction with Leeds Bradford and BAE Warton procedures is possible. If any changes are required, these would involve minor adjustments to published altitudes, agreed and approved through the CAA.

The MoD has confirmed that military low flying can continue safely with aviation lighting on the turbines and final layout details provided before construction.

Early modelling also identified a potential effect on the Pole Hill navigation beacon. Turbines in this area have been removed from the design, and no further issues are expected.

The project is visible to several primary radar systems operated by airports, NATS/NERL, BAE Systems and the Met Office. Wind turbines can create unwanted radar interference and work is now underway with radar operators to agree appropriate mitigation. Any solution will need to meet all aviation safety requirements and be acceptable to the relevant operators.

Built-In Mitigation

As the design has evolved, we have already incorporated several measures to avoid or reduce impacts. These include removing turbines where necessary to protect navigation systems and ensuring all turbines feature aviation lighting. Further refinements may be made as ongoing technical work continues.

The next stage of work will involve completing the detailed assessments with airports and the MoD, agreeing solutions for radar, and finalising any required updates to flight procedures. The outcomes of this work will be presented in full within the Environmental Statement submitted with the DCO application.

Shadow Flicker

What Is Shadow Flicker?

Shadow flicker is the effect created when rotating turbine blades briefly block sunlight and cast moving shadows through a window. This can cause light levels inside a room to change for short periods of time. It only occurs indoors and only when the sun is shining, the turbine is spinning, and the angle between the sun and turbine aligns with a building window (or glazed door).

Shadows that fall outdoors on open ground are known as shadow cast, which does not have an impact on indoor amenity and is not defined as shadow flicker.

How We Assessed Shadow Flicker

In line with national guidance and planning policy, for Calderdale Energy Park, we assessed:

- All buildings within the defined Assessment Area
- Worst case conditions (sun shining all day, turbines always spinning)
- Realistic conditions (based on average sunshine hours)
- The direction of the sun, turbine dimensions and distance to homes

What the Assessment Found

The assessment looked at 34 properties within the study area and found that shadow flicker effects are limited and only occur when very specific conditions line up.

Under worst-case assumptions - where the sun is shining all day, every day, and turbines are always facing the property - 13 properties could theoretically exceed the typical guideline of 30 hours per year or 30 minutes per day, while the remaining 21 properties are well below this level.

When realistic local sunshine levels are taken into account, none of the 34 properties exceed 30 hours per year. Overall, the findings show that shadow flicker is a localised, infrequent effect that varies throughout the year and depends on rare combinations of weather, turbine orientation and sunlight.

How We Will Manage Shadow Flicker

To protect residential amenity, Calderdale Energy Park will use a Shadow Flicker Control System, a proven technology used on many UK wind farms, this system:

- Detects when the right conditions for shadow flicker occur
- Momentarily pauses the relevant turbine(s) to prevent flicker
- Operates automatically during sunny periods when a shadow could fall on a property

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Proactive mitigation

Automatic control for all properties within 10 rotor diameters of a turbine, reducing flicker to near zero.

Reactive mitigation

For properties further away, the system can be activated if a concern is raised.

After mitigation, no significant shadow flicker effects are predicted for any property.

Shadow Cast on Footpaths and Bridleways

Although not part of formal planning requirements, we assessed shadows falling on:

- The Pennine Bridleway
- The Calder–Aire Link
- The Pennine Way

Key findings:

- Both the Pennine Bridleway and Calder–Aire Link lie outside recommended equestrian safety buffer distances.
- Shadow cast on open ground is not harmful, with no known safety incidents recorded at UK wind farms.
- Measures such as optional rider familiarisation sessions and advisory signage will be offered.
- The Pennine Way walking route passes close to three turbines, but effects on walkers are not expected to be significant.

What This Means for the Community

Shadow flicker will be carefully controlled, using best practice turbine technology. No significant effects are expected during the operational phase of Calderdale Energy Park. Properties nearest the turbines will benefit from automatic, proactive protection and Public Rights of Way will remain safe and accessible.

Materials and Waste

Construction

The material requirements for the construction phase have been estimated for the Turbine Area and the Bradford West Cable Corridor. However, requirements for the access routes are not yet available and will be included in the ES. Without this data a full significance assessment of this phase cannot be undertake and significant effects cannot be ruled out.

Estimations for inert, non-hazardous waste and hazardous waste have also been undertaken for the Wind Turbine Area and the Bradford West Cable Corridor. The predicted levels indicate that the project would use low values of landfill capacity in the Yorkshire and the Humber region. However, this has the potential to change with the provision of data for the Access Routes and as a result, the effect on disposal capacity cannot be ruled out at this stage.

Operation and Maintenance

After approximately 20 years wind turbine replacement will occur, to minimise the effects of this phase, if replacement is required the replacement process will utilise existing access routes and turbines will like to be 80% recycled. Overall, the effects on waste during the operation and maintenance phase will be significantly less than construction and the effects are considered not-significant.

Decommissioning

Decommissioning is anticipated to occur approximately 35 years after Calderdale Energy Park becomes operational. At this stage, it is not known what the inert, non-hazardous or hazardous landfill void capacity will be available when this stage is set to occur. However, the infrastructure and operational components of the project are highly recyclable, with a significant proportion of crushed rock, recycled aggregate, concrete, sand and steel minimising the need for disposal to landfill. Current recycling and reuse from wind turbines is 85-96% and it is expected that this figure would at worst stay the same, or likely improve, by the time Calderdale Energy Park is decommissioned. As a result, both inert, non-hazardous and hazardous waste are expected to represent a small proportion of available landfill capacity, resulting in a negligible magnitude of change and therefore considered not significant.

Between now and preparation of the ES, further detailed design information will be gathered to enable a full assessment of materials use and waste generation across the entire project. Updated quantities for construction materials, cut-and-fill balances and waste arisings will be incorporated into the assessment once the Applicant's refined design data becomes available.

Cumulative effects

At this stage, the preliminary assesment shows that some cumulative effects cannot be ruled out, these relate to:

- Biodiversity and Ornithology
- Hydrology, peat and water environments
- Landscape and visual receptors
- Transport, noise and air quality
- Socio-economics
- Aviation

Before the Environmental Statement (ES) is finalised, the cumulative effects assessment will be updated to reflect the final design of the Calderdale Energy Park and the confirmed construction and operational details. This will include a full review of cumulative effects across all topics, using the completed ES-level technical assessments and updated significance conclusions. The ES will also identify any additional mitigation or design changes needed to manage cumulative effects, including those arising from interactions with other projects or between different environmental topics. Where required, these measures will be coordinated and secured through the DCO.

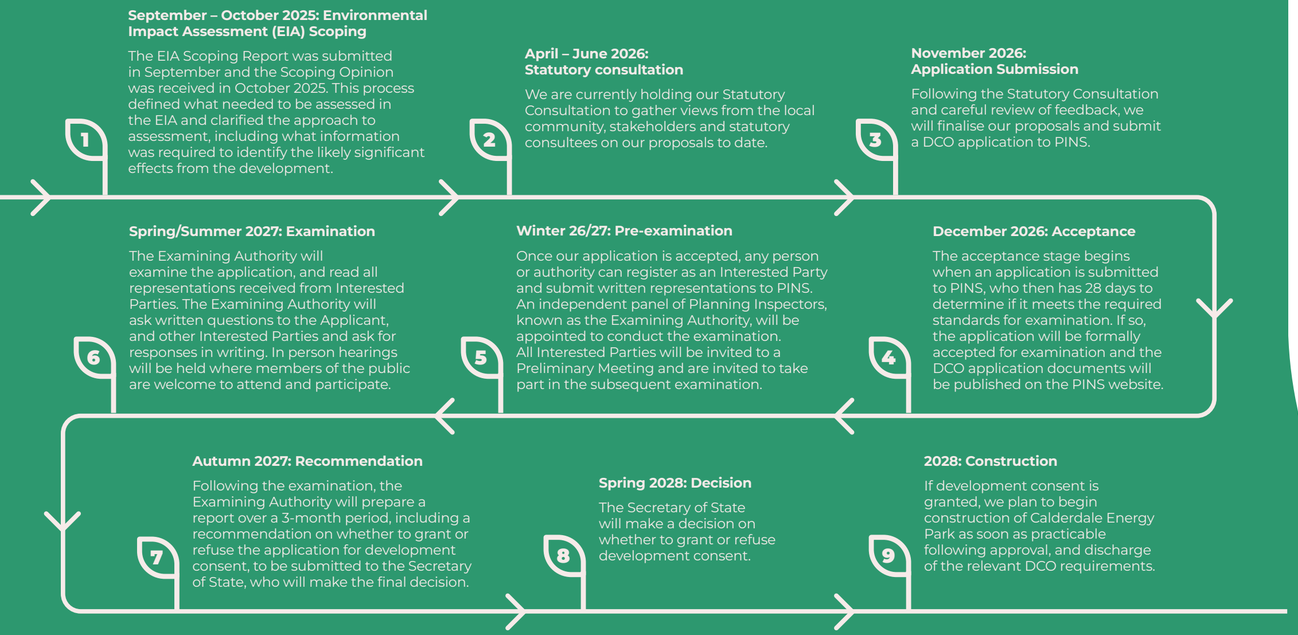
What happens next?

The Preliminary Environmental Information Report (PEIR) we have presented in this brochure reflects the environmental survey work and assessments completed to date. As a preliminary report, it provides the best available picture at this stage of the project but it is prepared at a point where some information is still developing, and where further evidence may lead to updates or refinements. This is an expected and established part of the Environmental Impact Assessment process.

Over the coming months, we will continue to carry out further detailed environmental studies, technical assessments and design updates. All of this additional work, together with the feedback received during this statutory consultation, will contribute to the Environmental Statement, which we will submit as part of the DCO application.

By outlining this now, we aim to be clear about what is known, what is still being explored, and how local insights and emerging evidence will shape the final proposals. Your feedback during this consultation is an important part of that process, and will directly inform the next stages of assessment and design.

DCO consenting process and anticipated project timeline



How we'll use your feedback and next steps

Your feedback and insights are central to shaping Calderdale Energy Park.

The statutory consultation provides an opportunity for the community, local authorities and statutory consultees to share their feedback on the proposals, the PEIR and the emerging design.

Once the consultation closes, all feedback will be carefully reviewed and considered alongside technical assessments, surveys and environmental studies. This input will help guide the refinement of the proposals, including:

- Design improvements to reduce impacts on the environment, landscape and communities
- Finalisation of mitigation measures to address potential effects on ecology, heritage, air quality, noise and other key topics
- Enhancements to community benefits, including access, biodiversity and socio-economic opportunities
- Preparation of a comprehensive ES to accompany the DCO application

A Consultation Report will be submitted as part of the DCO application. This report will summarise the feedback received, explain how it has been considered and detail the changes made to the project design in response.

Through this process, Calderdale Energy Park aims to ensure that the final proposals deliver a balanced, sustainable project that maximises renewable energy generation while carefully considering the needs of local communities and the environment.

Consultation events

The statutory consultation for Calderdale Energy Park will run from Wednesday 08 April to Wednesday 10 June, with the deadline for submitting comments at 11:59pm on 10 June 2026.

We encourage everyone in the local community, stakeholders and interested parties to review the proposals and share their feedback. Your input will help shape the final design and inform the ES that will accompany the DCO application.

How to Get Involved

There are several ways to engage with the consultation:

- **Online via the project website:** Visit www.calderdaleenergypark.co.uk to view all consultation documents, download materials free of charge, and submit feedback. The website will have the same information available as at in-person events.
- **Paper feedback form:** Paper copies of our feedback form will be available at our in-person public exhibition events and can be downloaded and printed from our website at www.calderdaleenergypark.co.uk. You can also contact us to request a paper feedback form be sent to you in the post.
- **Email:** Send your comments to info@calderdaleenergypark.com.
- **Post:** Write to us using Freepost CALDERDALE ENERGY PARK.
- **Information line:** Call 01422 702506 to speak with a member of the project team.

We will respond to enquiries as promptly as possible and all feedback received by the deadline of 11:59pm on 10 June 2026 will be considered as part of the consultation process.

In-Person Consultation Events

We hope that you will be able to attend one of the following events to learn more about Calderdale energy park, speak with the project team and share your feedback.

The events will be held at:

Date	Time	Location
Friday 17 April	2:00pm – 7:00pm	Denholme Community Centre
Saturday 18 April	1:00pm – 5:00pm	Oxenhope Community Centre
Tuesday 21 April	1:00pm – 7:00pm	Hebden Bridge Town Hall
Saturday 09 May	11:00am – 3:00pm	Trawden Forest Community Centre
Tuesday 19 May	1:00pm – 7:00pm	Haworth Village Hall
Thursday 21 May	2:00pm – 7:00pm	Primet Community Centre, Colne

Online Webinar

For those unable to attend one of the in-person events, we will be holding an online webinar on 14 May 2026 from 6:30pm until 8:00pm.

You can sign up for the webinar on our website at: www.calderdaleenergypark.co.uk

Or email the project team at: info@calderdaleenergypark.com

Calderdale
energy park