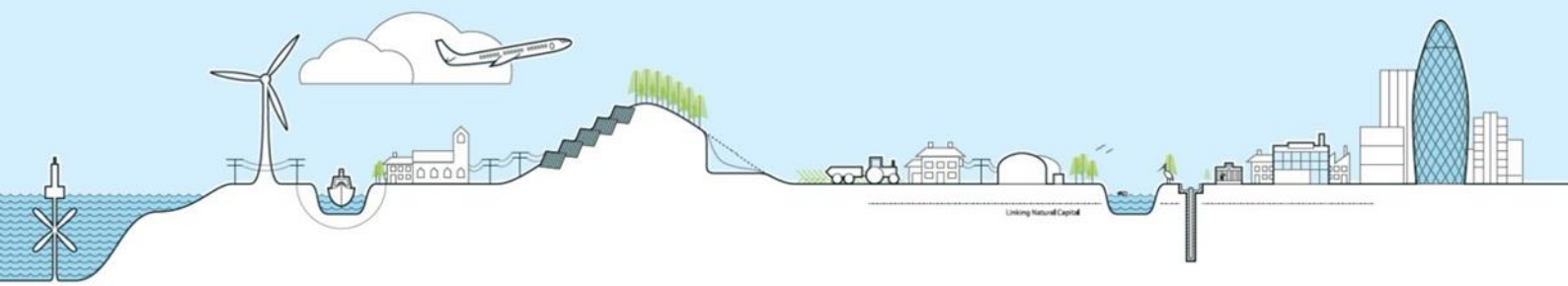
PLANNING STATEMENT

Accompanying a planning application for the construction, operation and decommissioning of a renewable energy generating station comprising ground-mounted photovoltaic solar arrays together with substation, transformer stations, site accesses, internal access tracks, security measures, access gates, other ancillary infrastructure, landscaping and biodiversity enhancements at Low Farm, Grange Road, Wakefield, WF4 4BB

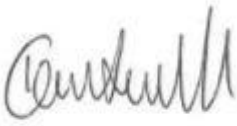
June 2022

Prepared By

aardvark
environment matters



Project Quality Control Sheet

ORIGINAL	Author	Checked by	Approved by
Signature			
Date	24/06/2022	24/06/2022	24/06/2022
Company	Aardvark EM Ltd	Aardvark EM Ltd	Aardvark EM Ltd

Location: **Low Farm, Grange Road, Wakefield, WF4 4BB**

Grid Reference: **SE24071600 (E 424071; N 416003) (centre of application site)**

Project Manager: **Kate Cantwell BA Hone MSc MRTPI**

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Report Number: **R003**

Report Status: **REVISED**

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1 Introduction

This Planning Statement has been prepared by Aardvark EM Limited on behalf of Boom Power Limited ("the Applicant") to accompany a full planning application to Kirklees Council for the construction, operation and decommissioning of a renewable energy generating station comprising ground-mounted photovoltaic solar arrays together with substations, transformer stations, site accesses, internal access tracks, security measures, access gates, other ancillary infrastructure and landscaping and biodiversity enhancements ("the Proposed Development") on land at Low Farm, Wakefield Road, Grange Moor, Wakefield, WF4 4BB in Yorkshire ("the Site").

The Proposed Development would supply up to 49.9MW of clean renewable electricity to the National Grid, providing the equivalent annual electrical needs of approximately 15,200 family homes. The anticipated CO_2 displacement is around 23,300 tonnes per annum, which represents an emission saving equivalent of a reduction in c. 7,500 cars on the road every year.

The solar array would be transmitted to the point of (grid) connection ("POC") at Lady Ings Farm, 58 Low Lane, Middlestown, Wakefield, WF4 4PT.

There is an urgent requirement for renewable energy generation which the Proposed Development would help fulfil; the proposed development is suitable to the Site and its surroundings; the proposal accords with national and local planning policy and relevant material planning considerations; and delivers significant biodiversity benefits.

In accordance with the validation requirements of Kirklees Council, this report sets out the planning policy context relating to the benefits and acceptability of the principle of the Proposed Development assessed against the design principles and concepts that have been applied and how environmental issues relating to the proposed scheme have been addressed.

Whilst the Planning Statement can be read as a standalone document, it should be read in the context of the entire submission documentation in order to fully understand the Proposed Development, its potential impacts and planning merits.

1.1 Accompanying Documentation

The covering letter and planning application form for the Proposed Development (Document Ref: R001) is accompanied by the following documentation:

Document Reference	Document Name
R001	Submission Letter
R002	Drawings Pack
R003	Planning Statement
R004	Design and Access Statement
R005	Transport Assessment
R006	Construction Traffic Management Plan
R007	Noise Assessment
R008	Flood Risk Assessment

R009	Heritage Assessment
R010	Landscape and Visual Impact Assessment (LVIA) – including Landscape and Ecological Enhancement Plan (LEEP)
R011	Ecological Impact Assessment
R012	Agricultural Land Classification Assessment
R013	Statement of Community Involvement
R014	Glint and Glare Assessment

Table 1: List of submitted documents

The planning application drawings submitted in the Planning Application Drawing Pack (see Document Ref: R002) are set out in Table 2 below:

Drawing Number	Drawing Title
2112-D001.1	Location Plan 1-v.c
2112-D001.1	Location Plan 2-v.c
2112-D001.1	Location Plan 3-v.c
B001	Overall Layout Planning B001 V3.3
B004	POC Cable Route V 1.3
31351NGLS	Topo 31351NGLS V 1.0
31351NGLS	Topo 31351NGLS Field 9 V A
Data Sheet	20FT Storage Container V 1.0
Data Sheet	DNO 132kV Substation Entrance Gates V 1.0
Data Sheet	DNO 132kV Substation Palisade Fencing V 1.0
Data Sheet	Huawei Inverter SUN2000-185KTL-H1 V 1.0
Data Sheet	Jinko Module TR 550-570W V 1.0
Data Sheet	Perimeter Deer Fencing V 1.0
Data Sheet	Smart Transformer Station STS-6000K-H1 V 1.0
B101	CCTV Pole Elevations Fence V 1.0
B102	CCTV Pole Elevations Fence Photo V 1.0
B104	Compound Area Layout V 1.0
B121	DNO 132kV Substation Entrance Gates Elevations V 1.0
B007	DNO 132kV Substation Foundations + Elevations V 1.0

B120	DNO 132kV Substation Palisade Fencing Elevations V 1.0
B005	DNO 33kV Substation Foundations + Elevations V 1.0
B106	Education Board V 5.0
B105	Education Board Elevations V 1.0
B008	Education Board Location V 1.0
B107	Internal Access Track Cross Section V 1.0
B109A	Perimeter Deer Fencing + Netting Photo V 1.0
B109B	Perimeter Deer Fencing + Netting Photo V 1.0
B112	Perimeter Deer Fencing Elevations V 1.0
B114	Site Entrance Gates Elevation Wooden V 1.0
B115	Solar Farm Cross Section V 1.0
B002	Solar Panel Elevations V 1.0
B116	Storage Container Foundations + Elevations V 1.0
B117	Transformer Substation Foundations + Elevations V 1.0
B119	Trenching Cross Section V 1.0

Table 2: List of drawings submitted

1.2 The Applicant

Boom Power Limited specialises in non-subsidised solar infrastructure projects. 726 MW of energy has already been delivered by the Boom team and 856 MW has secured planning consent. Boom's dedicated team monitors all components of its developments post-operation to ensure the sites continuously reach their optimum level of performance to provide the grid with greater stability.

The team at Boom have experience in projects small and large, and in total the team have developed and constructed over one gigawatt of solar energy internationally.

1.3 EIA Screening and Scoping

An Environmental Impact Assessment (EIA) Screening Request in accordance with the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended) for installation of a solar photovoltaic farm plus ancillary infrastructure and equipment, landscaping and access was submitted by the Applicant on 22nd April 2021. This provided details of the baseline condition, the proposed approach to the assessment and the likely potential effects arising from the Proposed Development.

Kirklees Council issued its EIA Screening Opinion on 1 June 2021 (Kirklees Council Ref: 2021/20376). It concluded that an Environmental Statement (ES) would not be required, stating that "*The proposal is not likely to have significant effects on the environment which would amount to EIA development. EIA is not required*."

In the Summary / Reasons Kirklees Council states:

"Planning Practice Guidance states that only a very small proportion of Schedule 2 development will require EIA… Whilst the proposal would extend across a substantial area and result in the potentially temporary loss of a substantial area of good quality agricultural land and impact upon visual amenity and biodiversity, on balance, having regard to the height of the panels, their location within the landscape and the location of the site (including natural screening), it is considered that the associated environmental impacts likely to result from it would be of local significance only. Therefore, the proposed development would not have significant effects to the extent that they would necessitate EIA pursuant to the 2017 Regulations."

A copy of the Kirklees Council EIA Screening Opinion is provided at the end of this statement.

1.4 Structure of the Planning Statement

The subsequent sections of this Planning Statement are organised into:

Section 2: Scheme Overview

This section summarises the existing uses and environs of the Site, together with a summary of the Proposed Development. It also identifies the designations applying to the site and surrounding area together with the relevant planning history. See also the Design and Access Statement (Document Ref: R004) for full details describing the Proposed Development.

Section 3: Community Engagement

This section summarises the engagement the Applicant has had with the local community and how feedback received has influenced the Application. See also the Statement of Community Involvement (Document Ref: R013).

Section 4: Policy Context

This section sets out the relevant national and local development plan policy, together with the applicable Supplementary Planning Guidance.

Section 5: The Planning Appraisal

Here the planning considerations considered important to the determination of the Proposed Development are set out and explained in the context of the applicable planning policy outlined in Section 4.

Section 6: Conclusions

This provides a concluding statement in terms of the Proposed Development and its planning merits.

2 Scheme Overview

2.1 The Existing Site

The Site is at OS Grid Reference SE24071600 (E 424071; N416003) (the approximate centre of the Site). Overall, the Site area is approximately 89hectares, including the grid connection cable corridors linking the solar array land parcels to the point of connection at Lady Ings Farm (see Figure 1 below).

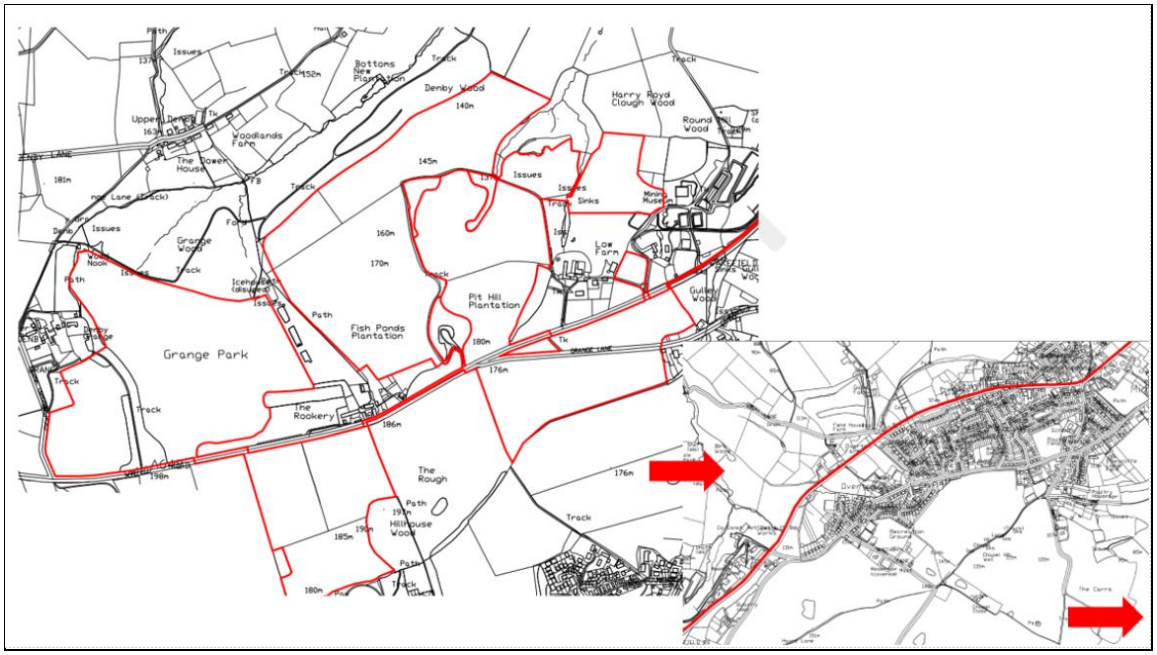

Figure 1: Existing Site Location Plan (See Document Ref: R002 for scaled drawings)

The village of Flockton Green is located on the A637 and to the southeast of the site. Immediately east of Parcel 9 (shown on drawing B001, Document Ref: R002), is the National Coal Mining Museum for England. A small cluster of properties is located at the end of Denby Grange Lane which runs north to south along the western boundary of Parcel 1. Grange Moor and the Jubilee Way Industrial estate are located 780m to the west of the site and Overton, 1.25km to the east continues the ribbon of development which links it with Low Farm.

The site and underground cable route to the point of grid connection ("POC") at Lady Ings Farm which is located within the same Parish.

The development land is split into 9 Parcels:

- Parcel 1 borders Denby Grange and is accessed via an existing agricultural access point to the north of Wakefield Road/A642. This parcel contains the proposed Temporary Site Compound area.

- Parcels 2, 3, 7 & 8 are also accessed via an existing agricultural track which borders the western edge of a wooded mound with branches leading to each of the 7 fields it serves. The track follows the western and then northern edge of edge of the wooded areas using existing tracks to cross the vegetated areas. The southern part of Parcel 2 is set aside for woodland planting/ecology area (see the Ecological Impact Assessment Document Ref: R011 and LEEP contained in Document Ref: R010 for more detail).
- Parcel 4 is located south of Wakefield Road/A642 and borders the Flockton Green cricket field.
- Parcels 5 & 6 are also south of Wakefield road/A642 but are separated by Grange Lane. Parcel 5 is accessed directly off Grange Lane, while Parcel 6 is accessed from Wakefield Road - both using existing agricultural access points. The eastern extent of Parcel 5 is set aside for a no build/ecological area (see the Ecological Impact Assessment Document Ref: R011 and LEEP contained in Document Ref: R010 for more detail).
- Parcel 9 borders the eastern edge of Low Farm and uses a small field which connects the farm and the Museum. It is proposed to contain the two substations. Construction access will be via an existing commercial access to the Museum which avoids construction traffic passing the Low Farm residential properties.

The Site's prevailing character is that of fields in agricultural management comprising arable and improved grassland habitats and interspersed by woodland and tree belts. Field boundaries are a mix of hedgerows and dry stone walls (some vegetated) and fences with evidence of the mining heritage of the area. There is no woodland within the boundary of the Proposed Development although several wooded areas border the site.

There are four waterbodies located immediately adjacent to the site boundaries, and the closest watercourses to the site are two unnamed tributaries of the Smithy Brook. The first is approximately 100m north of Parcel 2 and the second runs between Parcels 2, 7, and 8. The Smithy Brook flows to the River Calder 3.5 km to the east. Approximately 0.5 km to the south of Parcel 4 is Mill Beck which flows generally south east and joins the River Dearne. EA Flood Zone mapping shows the entire Low Farm site to be in Flood Zone 1 (Low Risk) with the closest identified area of higher risk, Flood Zone 2, being 0.5 km to the south and associated with the Mill Beck.

Whilst the potential effect of climate change could increase frequency, depth and extent of fluvial flooding, given the small catchment of the streams to the north and south, any increase in flood risk is considered unlikely to be of a magnitude that would result in on-site fluvial flooding.

There are no watercourses or waterbodies within the Site, though there is a small watercourse just beyond part of the southern boundary of Parcel 5. There are numerous small watercourses within the woodland areas which separate some of the parcels (e.g. Denby Wood to the north of Parcel 7 and Grange Wood to the north of Parcels 1 and 2), and also a number of ponds within Fish Ponds Plantation and The Rookery (to the south-east of Parcel 1).

A detailed summary of the existing Site is provided in the Design and Access Statement (Document Ref: R004).

2.2 The Surrounding Area

The site is located approximately 4 km east of Lepton and 2.8 km east of Middlestown and is set within a predominantly rural landscape, but with the presence of nearby industry and urban settlement. There are several villages and small towns in the local area served by a network of A and B roads.

There are large infrastructure facilities within the surrounding site area, these include New Hall Prison and Young Offenders Institution 675m south east of the site, the industrial estate to the west at Grange Moor and the National Coal Mining Museum at Caphouse Colliery to the east.

2.3 Designations

The Site lies within the Green Belt, but outside of any national/statutory or local/non-statutory landscape designations. Green Belt is a spatial planning designation, rather than a landscape designation, but the openness of the Green Belt does relate to landscape character and is therefore considered via a qualitative assessment in the LVIA (Document Ref: R010).

The Site lies within LCA N1: Emley Moor, within the Rolling Wooded Farmland Landscape Character Type, as described in the Kirklees District Local Character Area. The South East Coalfield and Calder Valley LCTs lie to the east and north-east of the site, within Wakefield District.

The site is located in a Coal Mining Risk Area and as such a Coal Mining Risk Assessment has been carried out and accompanies the Phase 1 Geo-environmental and Geo-technical report by WSP (Document R006).

Non-statutory Nature Conservation Site (NNCS) Kirklees Wood Local Wildlife Site (LWS) is located approximately 1km to the southeast of the site and was selected for species rich acid woodland.

The woodland areas located adjacent to the northern boundaries of Parcels 2 & 7 are included in the register of Ancient Replanted Woodland.

The nearest Statutory Nature Conservation Site is approximately 2km to the southeast of the Site and comprises Denby Grange Colliery Ponds SSSI/SAC which was designated for its regionally significant populations of Great Crested Newt.

The proposed development is not within an area identified as a SSSI Impact Risk Zone for solar developments.

There are no listed buildings or scheduled monuments within the development site boundary, but there are 11 Listed Buildings, two scheduled monuments and one Conservation Area recorded within 1km of the proposed development. The details of these considerations and the potential impact upon them of the proposed development is considered in further detail in the Heritage Assessment, Document Ref: R009.

2.4 Planning History

There are no relevant development control applications/decisions on the Site itself.

2.5 Proposed Development

The Application seeks permission for the following Proposed Development:

> "*Installation, operation and decommissioning of renewable energy generating station comprising ground-mounted photovoltaic solar arrays together with substation, transformer stations, site accesses, internal access tracks, security measures, access gates, other ancillary infrastructure and landscaping and biodiversity enhancements.*"

The Proposed Development would operate for a temporary time period of 40 years from the commencement of operation, and is designed to enable low intensity sheep grazing amongst the solar arrays. This enables the agricultural use of the land to be retained in combination with the delivery of renewable energy and significant biodiversity enhancements. Upon decommissioning the Site would

continue in agricultural use. The temporary presence of the Development does not permanently change the classification of the land from 'greenfield' to 'brownfield' (or 'previously developed' land), and so there is no longer term planning policy implication as a result of allowing the proposed temporary development.

The connection to the grid will be made at the electricity pylon located in an agricultural field at Lady Ings Farm east of Low Lane, located approximately 3 km east of the Site, via an underground cable. The development boundary has also provided for the necessary underground connections between the Parcels located either side of Wakefield Road/A642. The main components of the Proposed Development are explained in detail within the Design and Access Statement (Document Ref: R004) and shown on Figure 2 below:

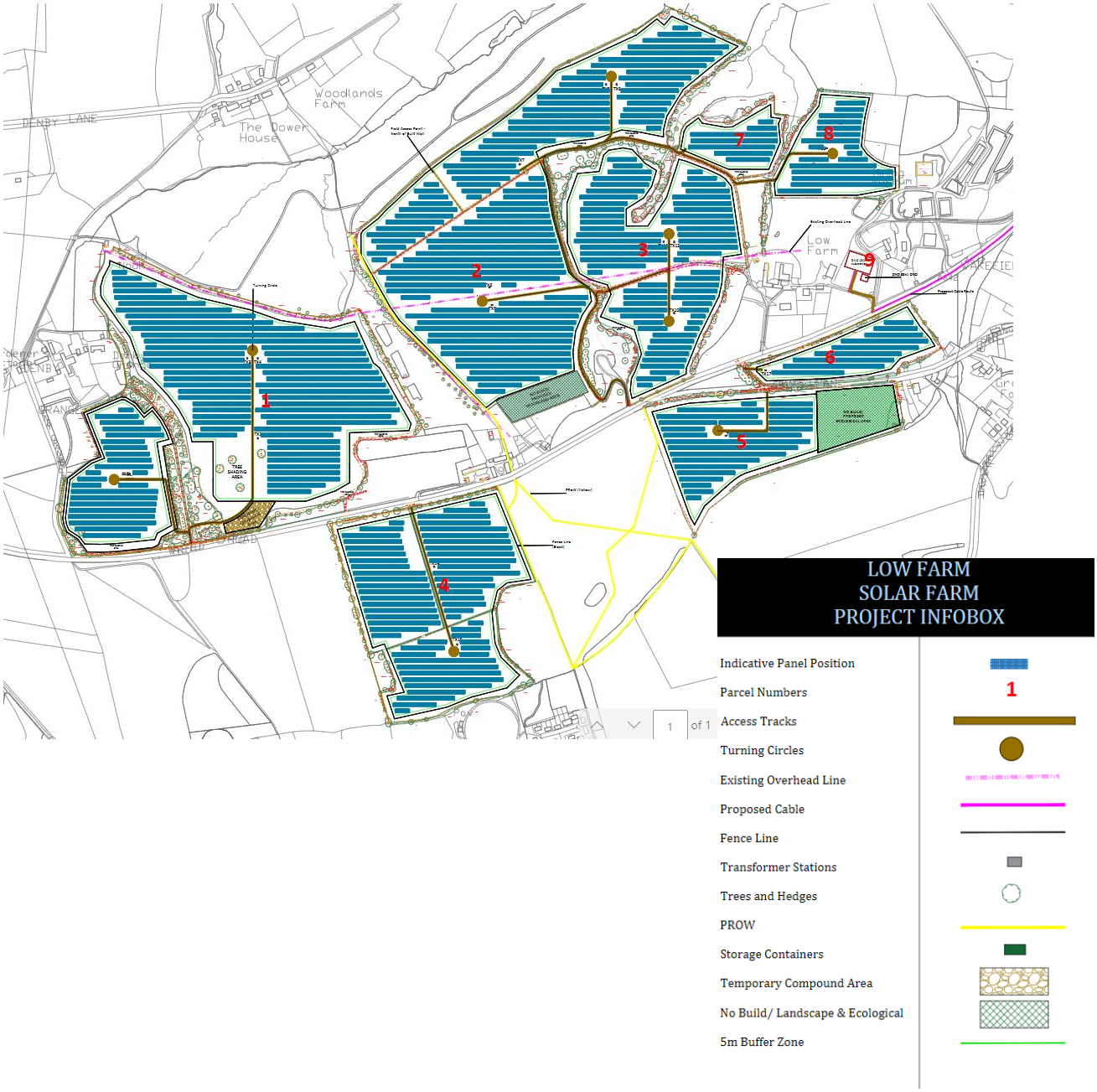

Figure 2: Proposed Site Layout (See Document Ref: R002 for scaled drawings)

Construction would take place over approximately six months (around 26 weeks) with agricultural vehicles using 5 different access points to deliver materials to the Site:

- **Parcel 1** – access on northern edge of the Wakefield Road/A642 east of Denby Grange Lane
- **Parcels 2, 3, 7, 8** – access on northern edge of Wakelfield Road/A642 east of The Rookery
- **Parcel 9** – accessed using the service point on the western boundary of the National Coal Mining museum
- **Parcel 4** – accessed south of Wakefield Road near The Rookery
- **Parcel 5** – accessed south of Grange Lane
- **Parcel 6** – accessed on the southern edge of Wakefield Road/A642 near Low Farm

Minor modifications to the accesses of each Parcel will be required to provide the visibility splays required by the local Highways Authority. This will involve the realignment of the kerb either side of the access, and in the case of access for Parcel 1, also the realignment of the dry stone wall bordering the site and highway (see drawing 17298-HYD-XX-XX-DR-TP-0001 in Document Ref R005). These are relatively minor alterations to existing agricultural accesses which already accommodate large modern farm vehicle movements.

These drawings also demonstrate that vehicle manoeuvres can be undertaken in a safe manner with adequate space provided for the largest vehicle expected to need to use them during the construction and decommissioning periods. During operation only smaller vehicles will need to access the site for occasional monitoring and maintenance visits.

A temporary construction vehicle track will be provided along the routes shown on the Overall Layout plan B001) and constructed to the specification shown on the Internal Access Track Cross Section Drawing B107 v 1.0 (both in Document Ref R002).

The main period of construction will be over a 6 week period during which it is expected there will be 7 deliveries (14 two-way movements) per day, of which 4 are expected to be HGVs. A more detailed breakdown of the vehicle movements is provided in Table 5.1 of the Traffic Assessment (Document Ref R005).

The proposed construction hours are:

- Site open for non-noise invasive works - no heavy machinery nor deliveries;

  Mon-Fri 07:30 - 18:30

  Sat 07:30 - 16:30
- Site fully open for all works including heavy machinery and deliveries

  Mon-Fri 08:30 - 17:30

  Sat 09:00 - 13:00
- Site not open Sundays or Public Holidays

There is a designated construction traffic route to reach Parcel 1 where the temporary site compound will be located. This area will accept deliveries and store materials from which agricultural vehicles will be used to distribute materials as needed around the rest of the site, using a 'just in time' approach.

The proposed construction traffic access route to site has been determined to avoid weight restrictions zones and avoiding small villages where disruption might otherwise be caused. It provides a clear route from the M62 motorway travelling east to the site via Huddersfield.

2.6 Landscape and Biodiversity

Landscape mitigation and biodiversity enhancement proposals have been incorporated into the scheme design as part of the iterative design process (see the Design and Access Statement (Document Ref: R004) for an explanation of the design journey) and the finalised proposals are presented in full in the Landscape and Ecological Enhancement Plan (LEEP) (Document Ref: R010).

The key landscape and biodiversity benefits are listed below:

- Net biodiversity gain of 94.8%
- Hedgerow biodiversity gain of 32%
- Enhancement and reinforcement of 2630m of hedgerow
- Planting of 50 new hedgerow trees
- Planting of 730m of new hedgerow
- Planting of 0.85 ha of open woodland to the south of Parcel 2
- Establishing a 5m buffer zone around the edge of each Parcel which will remain undeveloped for the life of the development
- Potential to increase food availability for Skylarks which may benefit local populations
- Changes to the habitat management which are likely to benefit the Brown Hare
- Avoiding intensive arable farming of the land for the life of the development, enabling soil quality and related ecosystems to recover.

The LEEP objectives support the protection and enhancement of broadleaf woodland and hedgerows, UK Priority habitats and the creation of species rich grassland and further woodland plantation.

2.7 Public Amenity

All existing PRoWs and permissive footpath routes within the Site will be retained and will remain open and in their present position for the duration of the construction and operational phases.

An important objective of the LEEP (Document Ref: R009) is to protect and enhance recreational amenity from PRoWs. This has been addressed by:

- The provision of new hedge on the western edge of Parcel 5 which borders the Kirklees Way footpath
- Planting of a new section of woodland to the south of Parcel 2
- Planting of new hedge south of Parcel 9 which will provide a green break between the large agricultural building to the west and the service areas for the National Coal Mining Museum.

The overall character of the surrounding area is defined by undulating, sometimes elevated, topography; strong tree cover in the form of numerous small woodlands and tree belts. This reduces inter-visibility between the Site and much of its environs, allowing the local landscape to accommodate low-level development of the type proposed.

3 Community Engagement

The Applicant has been committed to early engagement with the local community and other parties as it recognises that good quality, pro-active pre-application discussions should lead to better informed planning applications and improved outcomes for all involved. This section summarises the engagement the Applicant had with the local community prior to submitting the planning application. A full and detailed account of the pre-application consultation process is provided in the Statement of Community Involvement submitted to accompany the planning application (see Document Ref: R013).

Although impacted by the consequences of the COVID19 pandemic, the Applicant sought to listen closely to the community, and pro-actively sought the public's involvement in the development of the proposals through the following outreach events:

- Distribution to 1,200 local residents and businesses of a brochure informing them about the proposals, requesting feedback via a pre-paid feedback form and inviting attendance to a virtual public exhibition event;
- A virtual public exhibition webinar where registered local residents were able to ask questions of the development team, listen to a presentation of the proposals and provide formal feedback on the scheme via an online survey or posted/emailed feedback form. A thirteen-slide deck presentation (Appendix 3) was presented during the virtual public exhibition, giving information about the Applicant, the Site and the Concept Design of the project. The Applicant and its development team were panellists of the virtual public exhibition, helping to explain the design of the site as well as engage in a Q&A session answering any questions attendees had;
- Virtual meetings with Parish Councils;
- Establishing a website for the project which gave an overview of the proposals, a recording of the virtual public exhibition event.

The consultation programme successfully engaged with a high number of residents that live in close proximity to the Site, with 12 individuals completing the feedback form.

Overall, the consultation feedback received via the submitted feedback forms and online survey was balanced. Of the 12 local residents that completed a feedback form, 9 were in favour of the proposal, 3 were in objection.

A wide variety of issues were raised through the public consultation process, and key ones were:

- Landscape impact;
- Visual impact;
- Construction traffic routing and site access points;
- Biodiversity; and
- Loss of agricultural land.

A number of the issues raised by residents informed amendments to the submitted scheme including:

- Location of the education board to be determined in consultation with the Parish Council
- The access points for Parcels 5 and 6 have been changed to avoid passing residential properties on Grange Lane, and instead use existing field access points.
- The landscaping plan responds to public comments about views into the site and value attributed to the surrounding landscape.

- The Planning Statement has been written with the aim of making the benefits to local area clear, in response to feedback that the local benefits were not clear.
- Planning statement as responded specifically to concern from one resident about the potential for impact on the hunting ground of nesting buzzards.

4 Policy Context

The policy to be considered in the examination of the Proposed Development is derived from European and national energy policy and planning policy as set out in the overarching National Policy Statement for Energy EN-1, the National Planning Policy Framework (2019) and the Local Development Plan.

Consideration is also given in this section to Supplementary Planning Guidance as provided by the online Planning Policy Guidance and its advice on renewable and low carbon energy

4.1 Global Climate Emergency

Published on 7th August 2021, signed off by governments and climate change scientists from around the globe, and as widely reported in the international news, the Intragovernmental Panel on Climate Change (IPCC) emphatically stated:

"It is unequivocal that human influence has warmed the atmosphere, ocean and land."

It states that 'widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred; that human-induced climate change is already affecting many weather and climate extremes in every region across the globe; that global warming of 1.5 degrees centigrade and 2 degrees centigrade will be exceeded during the 21st Century unless 'deep reduction in CO_2 and other greenhouse gas emissions occur in the coming decade'; and that limiting human-related global warming in the way it is needed requires limiting cumulative CO_2 emissions and reaching at least net zero CO_2 emissions.

4.2 National Climate Emergency

The objectives of the UK renewable energy policies are in accordance with the overall international and European policy objectives. These are focused on a number of key climate change challenges, which include:

- The reduction of CO_2 emissions to tackle climate change;
- The promotion of competitive energy markets in the UK;
- Affordability to customers; and
- Security of decentralised energy supplies.

There is a significant body of international and national energy policy support for renewable and low carbon development. This support is rooted in the Government's policy of growing the economy in a decarbonising way and achieving its legally binding target of net-zero greenhouse gas emissions by 2050. To help achieve this the Government is rapidly seeking to transition from a traditionally fossil fuel dependent economy to increasing amounts of secure, resilient renewable and low carbon energy, including solar power. The fact that solar technology has advanced to the point where it no longer requires public subsidy to make it commercially viable lends it further support from Government.

4.2.1 COP26

The aim of the UK COP26 Presidency was to keep alive the hope of limiting the rise in global temperature to 1.5C. The high-level outcomes of the event, 'COP26 The Glasgow Climate Pact' claims to have achieved that but is careful to qualify this stating that *"it will only be achieved if every country delivers on what they have pledged."*

One of four priorities was mitigation – reducing emissions. COP26 secured near-global net zero with NDCs from 153 countries and future strengthening of mitigation measures. Over 90% of world GDP

is now covered by net zero commitments. 153 countries put forward new 2030 emissions targets (NDCs).

In Glasgow, countries agreed to come back next year with new strengthened commitments, a new UN climate programme on mitigation ambition, and they finalised the Paris Rulebook. To deliver on these stretching targets, the Presidency has driven commitments to move away from coal power, halt and reverse deforestation, reduce methane emissions and speed up the switch to electric vehicles.

Delivery of renewable energy development plays an important role in reducing emissions, keeping the economy running while reducing demand for power in other ways. This is a privately financed renewable energy development which does not rely on government support to operate. While the public sector is exploring ways to reduce emissions, Boom Power has already used its initiative and industry knowledge to bring forward this development which responds in a practical and immediate way to the need for renewable energy. We cannot phase out coal power without alternatives ready to fill the gap. We cannot rely on electric cars without renewable energy to run them.

4.2.2 Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment report

The IPCC report assesses the physical science basis of Climate Change; multiple lines of scientific evidence confirm that the climate is changing due to human influence. The report in an International context states:

- It is unequivocal that human influence has warmed the atmosphere, ocean and land. The scale of recent changes across the climate system as a whole and the present state of many aspects of the climate system are unprecedented over many centuries to many thousands of years.
- Human-induced climate change is already affecting many weather and climate extremes in every region across the globe; the increased frequency and intensity of hot extremes, marine heatwaves, heavy precipitation, agricultural and ecological droughts in some regions, and proportion of intense tropical cyclones, as well as reductions in Arctic sea ice, snow cover and permafrost.
- Global surface temperature will continue to increase until at least the mid-century under all emissions scenarios considered. Global warming of 1.5°C and 2°C will be exceeded during the 21st century unless deep reductions in CO2 and other greenhouse gas emissions occur in the coming decades.
- Many changes due to past and future greenhouse gas emissions are irreversible for centuries to millennia, especially changes in the ocean, ice sheets and global sea level.

From a physical science perspective, the IPCC outline limiting human-induced global warming to a specific level requires limiting cumulative CO2 emissions, reaching at least net zero CO2 emissions, along with strong reductions in other greenhouse gas emissions. Strong, rapid and sustained reductions in nitrogen emissions would also limit the warming effect.

With a high level of confidence, the IPPC conclude the 'Emissions pathways that reach and sustain net zero Greenhouse Gas emissions defined by the 100-year global warming potential are projected to result in a decline in surface temperature after an earlier peak'. Achieving net zero emissions is therefore essential to limiting future Climate Change.

In a National Context this means that the objectives of the UK renewable energy policies are in accordance with the overall international policy objectives. These are focused on a number of key climate change challenges, which include:

- The reduction of CO_2 emissions to tackle climate change;

- The promotion of competitive energy markets in the UK;
- Affordability to customers; and
- Security of decentralised energy supplies.

This support is rooted in the Government's policy of growing the economy in a decarbonising way and achieving its legally binding target of net-zero greenhouse gas emissions by 2050 following a national climate emergency being declared by UK Parliament in May 2019 building upon the previous target to reduce greenhouse gas emissions by at least 80% relative to 1990 levels by 2050. To achieve this ambitious target many commentators note it will require a step change in the way in which the UK generates electricity and in many other ways of life (including food production, travel and business).

To help achieve this net-zero target the Government is rapidly seeking to transition from a traditionally fossil fuel dependent economy to increasing amounts of secure, resilient renewable and low carbon energy, including solar power. The fact that solar technology has advanced to the point where it no longer requires public subsidy to make it commercially viable lends it further support from Government compared to other innovative means of renewable energy generation which are still reliant on subsidy.

Recent announcements by the Prime Minster and Government Ministers in 'The Ten Point Plan for a Green Industrial Revolution' (November 2020), the 'National Infrastructure Strategy' (November 2020), Energy White Paper (December 2020), hosting of the international climate summit, COP26 in Glasgow in 2021, and proposed changes in law to reduce carbon emissions by 78% by 2035 (bringing forward our current target by 15 years) is expected to further reinforce the requirement for change.

4.2.3 Climate Change Act 2008

The Climate Change Act 2008 set into legislation the UK's approach to tackling and responding to climate change. It introduced a legally binding 2050 target to reduce greenhouse gas emissions by at least 80% relative to 1990 levels.

The two key aims of the Act are to:

- improve carbon management, helping the transition towards a low-carbon economy in the UK; and
- demonstrate UK leadership internationally, signalling commitment to taking our share of responsibility for reducing global emissions in the context of developing international negotiations.

4.2.4 Energy Security Strategy (2012)

The Energy Security Strategy was published by the Department of Energy and Climate Change (DECC) in November 2012. The document sets the direction for energy security policy. It provides a clear assessment of the UK's position, the risks the country faces, and the actions that are being taken.

The Energy Security Strategy sets out that the Government is primarily concerned about ensuring that consumers have access to the energy services they need (physical security) at prices that avoid excessive volatility (price security). The Strategy states that the energy security must be delivered alongside achievement of our legally binding targets on carbon emissions and renewable energy. It is noted that while the Government cannot control world energy market prices, they are seeking to ensure that energy services are as affordable as possible, both for consumers and businesses, and in the long term to reduce dependence on imported fossil fuels.

The Strategy outlined that there are risks to security of supply over the medium-term, with approximately 20% of the capacity available in 2011 set to close by 2021. It outlines the importance of diversity in the supply of energy and places an emphasis on ensuring that there is resilience in the

market. Paragraph 1.10 of the Strategy refers to how the country's energy requirements are likely to change between now and 2050, and states as follows:

"Electricity use is likely to increase by at least 30 per cent and potentially by 100 per cent as much of our heating and transportation becomes electrified. We may see more seasonal demand (caused by electrification of heating) and different peaks in demand (from electric vehicles). These changes to demand patterns, alongside an increased use of renewables and nuclear (less flexible supply), will increase the challenges of balancing the system and also present opportunities to embed demand side response (DSR) and distributed capacity (e.g. night charging of electric vehicles)."

4.2.5 UK Solar PV Strategy (2014)

Government policy is to substantially increase the deployment of renewable energy across the UK, including solar PV. It has published a Roadmap to a Brighter Future as the first part of a UK Solar PV Strategy. The Roadmap sets out four guiding principles, which form the basis of Government's strategy for solar PV. These principles are:

- Support for solar PV should allow cost-effective projects to proceed and to make a cost-effective contribution to UK carbon emission objectives in the context of overall energy goals – ensuring that solar PV has a role alongside other energy generation technologies in delivering carbon reductions, energy security and affordability for consumers.
- Support for solar PV should deliver genuine carbon reductions that help meet the UK's target of 15 per cent renewable energy from final consumption by 2020 and in supporting the decarbonisation of our economy in the longer term – ensuring that all the carbon impacts of solar PV deployment are fully understood.
- Support for solar PV should ensure proposals are appropriately sited, give proper weight to environmental considerations such as landscape and visual impact, heritage and local amenity, and provide opportunities for local communities to influence decisions that affect them.
- Support for solar PV should assess and respond to the impacts of deployment on: grid systems balancing; grid connectivity; and financial incentives – ensuring that we address the challenges of deploying high volumes of solar PV.

4.2.6 Clean Growth Strategy (Oct 2017)

The Government's Clean Growth Strategy (Oct 2017) sets out how it envisages the delivery of the clean, green economic growth needed to combat global warming. It identifies the policies necessary to drive a significant acceleration in the pace of the UK's decarbonisation to achieve the 2032 carbon budget targets that in turn will keep us on track to achieve the net zero target by 2050. The Strategy recognises the potential offered by solar to grow low carbon sources of energy and the Government confirms it wants to see more investment in this sector without public subsidy.

4.2.7 UK 25 Year Environment Plan (2018)

The sister document to the Clean Growth Strategy is the Government's UK 25 Year Environment Plan (Jan 2018). This sets out the goals for improving the environment within a generation and the actions Government will take over the next 25 years to achieve them. It supports the shift away from coal towards cleaner forms of energy as a way of reducing air pollution; confirms that the environmental protection already enshrined in national policy will be maintained and strengthened; and, importantly, indicates the existing requirement to provide biodiversity net gains is likely to be expanded to providing a wider environmental net gain which will be consulted upon as a mandatory requirement.

4.2.8 National Infrastructure Assessment (2018) and Draft National Policy Statement for Renewable Energy Infrastructure

In relation to the need for upgraded energy infrastructure, the National Infrastructure Assessment (2018) is highly supportive of building low cost, low carbon energy sources. The Assessment (prepared by the independent National Infrastructure Commission (NIC)), was the first of its kind in the UK and recommended an increasing deployment of renewables such that by 2030 half of the UK's power should be provided by renewables.

In its Interim Response (Oct 2018) to the Assessment the Government confirmed its ongoing commitment to promoting renewables. It recognised that, within a market-based system and with significant constraints on public expenditure, the private sector has an important role to play in the delivery of renewable energy schemes. The Government's formal response to the NIC Assessment, has just been published in draft this month (EN-3) which states in paragraph 2.47.1 that "solar is a key part of the government's strategy for low-cost decarbonisation of the energy sector."

4.2.9 UK Climate Emergency (2019)

In May 2019 a National Climate Emergency was declared by the UK Parliament. MPs called on Government to make changes that included setting a new target of reaching net zero emissions before 2050.

4.2.10 Net Zero – The UK's contribution to stopping global warming advice report (May 2019)

The UK's declared National Climate Emergency was informed by the publication of this report, prepared by the Committee on Climate Change which is an independent advisor to Government on these matters. It recommended the new emissions target for the UK of net-zero greenhouse gases by 2050.The accompanying Net Zero Technical Report (May 2019) suggested the potential for 29-96 GW of onshore wind, 145-615 GW of solar power and 95-245 GW of offshore wind in the UK.

A number of findings were made in these report that are relevant to the Proposed Development:

- Scenarios for 2030 and 2050 see variable renewables providing 50-75% of overall electrical energy production;
- Significant new renewable generation capacity is needed to accommodate rapid uptake of electric vehicles and hybrid heat pumps. Over the period to 2035, up to 35 GW onshore wind, 45 GW offshore wind and 54 GW of solar PV could be needed;
- The UK's onshore wind, offshore wind and solar PV resource are likely to be more than adequate to deliver an expanded and decarbonised electricity system to 2050

4.2.11 Climate Change Act 2008 (2050 Target Amendment) Order 2019

On 27 June 2019 the UK Parliament approved the net zero target in law, thereby changing the original target of 80% reduction of greenhouse gas emissions (compared to 1990 levels) in the UK by 2050 to 100%.

The aim is to meet the target through UK domestic effort, without relying on international carbon units (or 'credits').

Meeting this Net Zero Target will require major and urgent investment in new technologies and prioritisation of sustainable energy and cleaner power generation, including the use of solar.

4.2.12 Leading on Clean Growth (October 2019)

The Government Response, 'Leading on Clean Growth' (October 2019), reported on key achievements in the UK power sector including a record 33% of electricity generation from renewables in 2018, a rise of low carbon generation to some 52%, and 18 consecutive days of coal-free

generation. It also recognises ongoing reform of the energy system to deliver greater system flexibility in order to integrate significant quantities of low carbon generation.

4.2.13 Reducing UK emissions - 2020 Progress Report to Parliament (June 2021)

The Committee for Climate Change published a 2021 report to Parliament, assessing progress in reducing UK emissions over the past year. The reports Key Message was that: *"The Government has made historic climate promises in the past year, for which it deserves credit. However, it has been too slow to follow these with delivery. This defining year for the UK's climate credentials has been marred by uncertainty and delay to a host of new climate strategies. Those that have emerged have too often missed the mark. With every month of inaction, it is harder for the UK to get on track."*

It goes on to state that only five of 34 sectors assessed have shown notable progress in the past two years, and no sector is yet scoring highly in lowering its level of risk. The CCC made 50 recommendations which reflect the need to build a strong emergency resilience capability for the UK against climate shocks, learning from the COVID-19 response. They include:

- Ensure that developments and infrastructure are compliant with Net Zero and appropriately resilient to climate change through proposed amendments to the Planning Bill. Timing: 2021 – 2022;
- Ensure all departmental policy decisions, planning decisions and procurement decisions, are consistent with the Net Zero goal and reflect the latest understanding of climate risks. Timing Now and ongoing

One of the Committee's recommendations to the Department for Business, Energy & Industrial Strategy is to deliver plans to set timelines for how policies will start to deliver decarbonisation with the required urgency, and ensure that wider policy development is consistent with the UK's climate goals, and publish a plan for reaching an emissions intensity of 50 gCO2/kWh by 2030, with a total of around 350 TWh of low-carbon generation. The recommendations also include to develop a strategy as soon as possible on market design for the medium to long term for a fully decarbonised, resilient electricity system in the 2030s and onwards.

4.3 Local Climate Emergency

Kirklees Council declared a climate emergency in 2019 because it determined that *"we all must take urgent action to improve and protect our environment."* The organisation knows that greenhouse gases such as carbon dioxide trap heat, helping to warm the globe and recognises that *"the amount of carbon emissions are now causing an overall warming of the planet with corresponding devastating impacts starting to be felt."*

This is not just a remote issue, without detection at the local level. The Council specifically acknowledges that cases of extreme weather such as heat waves and rainfall are having consequences already in Kirklees with issues such as moorland fires and flooding in particular affecting the region.

The Council has an emphatic vision - to make Kirklees completely carbon neutral by 2028. This does not simply limit the Council as an organisation to achieving carbon neutrality in its own business and operations, but sets a challenging target for residents and businesses in Kirklees. The Council notes that this will mean dramatically reducing carbon emissions from human activities to zero, and removing any remaining emissions from the atmosphere. To achieve this it sets a number of targets, most relevant here is to consider the environmental impact as part of any Kirklees decision.

A programme and action plan is in development to set out how Kirklees becomes carbon neutral by 2038, but in the meantime, the statutory role the Council has in planning decision making though its

development management and strategic planning functions, is a more immediate way in which the council can lead the region toward the goal of carbon neutrality.

4.4 National Planning Policy

4.4.1 Overarching National Policy Statement for Energy (EN-1)

EN-1 sets out the Government's national policy for the delivery of major energy infrastructure. Whilst primarily of relevance to nationally significant infrastructure projects (NSIPs) over 50MW, it is clearly a material consideration for the Proposed Development which is just below the NSIP threshold.
EN-1 establishes the need for energy related development and so does not require decision makers to consider need on individual applications because of this.

Paragraph 1.7.2 of EN-1 states that energy National Policy Statements should speed up the transition to a low carbon economy and help to realise UK climate change commitments sooner than continuing under the current planning system. EN-1 also acknowledges that the development of new energy infrastructure, at the scale and speed required to meet the current and future need, is likely to have some negative effects on biodiversity, landscape/visual amenity and cultural heritage. However, the policy statement advises that in general it should be possible to mitigate satisfactorily the most significant potential negative effects.

The Government's policy on energy infrastructure development is critical to understanding the policies on need. Paragraph 2.1.1 states that there are three key goals, namely reducing carbon emissions, providing energy security and affordability. Producing the energy the UK requires and getting it to where it is needed necessitates a significant amount of both large and small scale infrastructure. Large scale infrastructure plays a "vital role" in ensuring security of supply (para. 2.1.2).

The transition to a low carbon economy is dealt with at paragraphs 2.2.5 to 2.2.11. The UK needs to wean itself off a high carbon energy mix, to reduce GHG emissions, and to improve the security, availability and affordability of energy through diversification. Under some of the "illustrative" 2050 pathways electricity generation would need to become virtually emission-free.

Paragraph 2.2.23 states that *"The UK must therefore reduce over time its dependence on fossil fuels, particularly unabated combustion. The Government plans to do this by improving energy efficiency and pursuing its objectives for renewables, nuclear power and carbon capture and storage"*.

Paragraph 3.3.10 also states that as part of the UK's need to diversify and decarbonise electricity generation, the Government is committed to dramatically increasing the amount of renewable energy capacity. Paragraph 3.3.11 goes onto state that an increase in renewable electricity is essential to enable the UK to meet its commitments under the EU Renewable Energy Directive.

Overall, EN-1 Section 3.4 identifies that large-scale deployment of renewables will help the UK to tackle climate change, reducing the UK's emissions of carbon dioxide by over 750 million tonnes by 2030. Paragraph 3.4.5 makes it clear that *"The need for new renewable electricity generation projects is therefore urgent"*.

4.4.2 National Planning Policy Framework (2021)

The National Planning Policy Framework (July 2021) (NPPF) sets out the Government's planning policies for England and how these should be applied. At its core is the need for the planning system to contribute to the achievement of sustainable development – meeting the needs of the present without compromising the ability of future generations to meet their own needs.

Paragraph 8 of the NPPF explains that achieving sustainable development means the planning system has three overarching and interdependent objectives:

- *"**an economic objective** - to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;*
- ***a social objective** - to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being ; and*
- ***an environmental objective** - to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy."*

The environmental objective in particular is applicable to renewable energy developments.

Paragraph 11 of the NPPF stipulates when determining planning applications, a presumption in favour of sustainable development should be applied and specifically:

> *"c) approving development proposals that accord with an up-to-date development plan without delay; or*
>
> *d) where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date, granting permission unless:*
>
> > *i. the application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or*
> >
> > *ii. any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole."*

Paragraph 12 underlines that the **presumption in favour of sustainable development** does not change the statutory status of the development plan as the starting point for decision making. The policies within the local development plan are considered below.

Section 6 of the NPPF refers to the economy and paragraph 81 in particular states that *"Planning policies and decisions should help create the condition in which businesses can invest, expand and adapt … The approach taken should allow each area to build on its strengths, counter any weaknesses and address the challenges of the future."* Footnote 42 guides the reader to The Governments' Industrial Strategy which identifies a number of Grand Challenges and sets out a delivery programme to make the UK a leader in 4 areas including 'clean growth'.

Paragraph 84 sets out that in supporting a prosperous rural economy planning decisions should **enable the development and diversification of agricultural and other land based rural business**.

Paragraph 85 states that planning policies and decisions should **recognise that sites to meet local business and community needs in rural areas may have to be found adjacent to or beyond existing settlements**. In these circumstances it will be important to ensure that development is **sensitive to its surroundings, does not have an unacceptable impact on local roads and exploits any opportunities to make a location more sustainable**.

Paragraph 100 states that planning policies and decisions should **protect and enhance public rights of way and access**.

Paragraph 111 directs that development should only be prevented or refused on **highway grounds** if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.

Paragraph 120 states that planning policies and decisions should *"**encourage multiple benefits from both urban and rural land,** including through mixed use schemes and taking opportunities to **achieve net environmental gains** – such as developments that would enable new habitat creation or improve public access to the countryside."*

Paragraph 126 states that **good design** is a key aspect of sustainable development. Paragraph 130 advises that planning policies and decisions should ensure developments function well and add to the overall quality of the area. They should be visually attractive as a result of good layout and appropriate and effective landscaping; be sympathetic to local character and history including landscape setting; and accommodate green space and be safe and accessible with a high standard of amenity and promoting health and well-being. Design quality should be considered throughout the evolution and assessment of development proposals (paragraph 132) and applications that can demonstrate early, proactive and effective engagement with the community should be looked on more favourably than those that cannot.

Section 13 of the NPPF is about Protecting Greenbelt Land. Paragraph 137 states that Government attaches 'great importance' to Green Belts. The fundamental aim of related policy being to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and their permanence. Paragraph 138 sets out the five purposes of the Greenbelt: a) to check the unrestricted sprawl of large built-up areas; b) to prevent neighbouring towns merging into one another; c) to assist in safeguarding the countryside from encroachment; d) to preserve the setting and special character of historic towns; and e) to assist in urban regeneration.

Paragraph 147 sets out that inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in 'very special circumstances'; that when considering any planning application, local planning authorities should ensure that 'substantial weight' is given to any harm to the Green Belt; and that 'very special circumstances' will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm resulting from the proposal, is clearly outweighed by other considerations (paragraph 148).

Paragraph 151 establishes that, when located in the Green Belt, elements of many renewable energy projects will comprise inappropriate development. It states that in such cases developers will need to demonstrate very special circumstances if projects are to proceed. Such very special circumstances may include the wider environmental benefits associated with increased production of energy from renewable sources.

Paragraph 152 sets out that the planning system should **support the transition to a low carbon future in a changing climate and it should help minimise vulnerability and improved resilience.** It states that it should **shape places in ways that contribute to radical reductions in greenhouse gas** emissions, minimise vulnerability and improve resilience, **and support renewable and low carbon energy and associated infrastructure.**

Paragraph 155 states that to help increase the use and supply of renewable and low carbon energy and heat, plans should:

> *"a) provide **a positive strategy for energy from these sources**, that maximises the potential for suitable development, **while ensuring that adverse impacts are addressed satisfactorily** (including cumulative landscape and visual impacts);*
>
> *b) **consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure their development**; and*

*c) **identify opportunities for development to draw its energy supply from decentralised, renewable or low carbon energy supply systems** and for co-locating potential heat customers and suppliers."*

Paragraph 157 states that local planning authorities should **expect new development to take account of landform, layout, building orientation, massing and landscaping**.

Paragraph 158 sets out that when determining planning applications for renewable and low carbon development, local planning authorities should **not require applicants to demonstrate the overall need** for renewable or low carbon energy, and recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions; and **approve the application if its impacts are (or can be made) acceptable**.

Paragraph 159 sets out that inappropriate development in areas at **risk of flooding** should be avoided by directing development away from areas at highest risk. Paragraph 167 directs that when determining any planning applications, local planning authorities should ensure that flood risk is not increased elsewhere and that applications should be supported by a site-specific flood-risk assessment. Development should only be allowed in areas at risk of flooding where, in the light of this assessment it can be demonstrated that;

a) within the site, the most vulnerable development is located in areas of lowest flood risk, unless there are overriding reasons to prefer a different location;

b) the development is appropriately flood resistant and resilient;

c) it incorporates sustainable drainage systems, unless there is clear evidence that this would be inappropriate;

d) any residual risk can be safely managed; and

e) safe access and escape routes.

Section 15 of the NPPF focuses on conserving and enhancing the natural environment. Specifically, Paragraph 174 states that planning policies and decisions should contribute to and enhance the natural and local environment including by **protecting and enhancing valued landscapes**, recognising the **intrinsic character and beauty of the countryside**, by **protecting and enhancing soils**, **minimising impacts on biodiversity** and preventing new development from contributing to, being put at unacceptable risk from, or being adversely affected by, **unacceptable levels of air or noise pollution**.

Paragraph 175 of the NPPF goes on to describe that Plans should distinguish between the hierarchy of designated sites and allocate land with the least environmental value and footnote 58 states where significant development of **agricultural land** is demonstrated to be necessary, areas of poorer quality land should be preferred to those of higher quality.

Paragraph 180 sets out the principles that local planning authorities should apply with regard to **habitats and biodiversity** when determining planning applications including refusing applications where significant harm to biodiversity cannot be mitigated/compensated for; protecting SSSIs; refusing developments that result in the loss or deterioration of irreplaceable habitats unless there are wholly exceptional; and **encouraging opportunities to incorporate biodiversity improvements especially where this can secure measurable gains for biodiversity**.

Paragraph 185 states that planning policies and decisions should also **ensure that new development is appropriate for its location** taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should mitigate and reduce to a minimum potential adverse impacts resulting from noise from new

development – and avoid noise giving rise to significant adverse impacts on health and the quality of life; and identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason.

Paragraph 194 states that in determining applications, local planning authorities should require the applicant to **describe the significance of any heritage assets affected, including the contribution made by their setting**. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should be consulted, and the heritage assets assessed using appropriate expertise where necessary. Where a site on which a development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.

Paragraph 199 states that *"great weight"* should be given to the conservation of the significance of designated heritage assets and *"the more important the asset, the greater the weight should be"*. Paragraph 202 states that where a development proposal will lead to 'less than substantial' harm to the significance of a designated heritage asset, that harm should be weighed against the public benefits of the proposal.

establishes the policy test where development results in 'less than substantial harm' different levels of harm to the significance of heritage assets of differing levels of importance.

The Glossary of the NPPF defines renewable and low carbon energy, including energy for heating and cooling as well as generating electricity. Renewable energy covers those energy flows that occur naturally and repeatedly in the environment including from the sun. Low carbon technologies are those that can help reduce emissions (compared to conventional use of fossil fuels).

4.5 Local Planning Policy

The local development plan for the purposes of determining the Application are the following plans, in so far as they are consistent with the NPPF: The Kirklees Local Plan - adopted on 27 February 2019 comprising the Strategy and Policies document, Allocations and Designations document and associated Policies Map.

There are no relevant "made" Neighbourhood Plans applicable to the Proposed Development.

Kirklees Local Plan – Strategy and Policies

Policy LP1: Presumption in Favour of Sustainable Development states that when considering development proposals, the council will take a positive approach that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework (see above). That the council will always work pro-actively with applicants jointly to find solutions which mean that proposals can be approved wherever possible, **and to secure development that improves the economic, social and environmental conditions in the area.** It goes on to further clarify that proposals that accord with the policies in the Kirklees Local Plan (and, where relevant, with policies in neighbourhood plans) will be approved without delay, unless material considerations indicate otherwise.

The Statement Vision for Kirklees states that: *"In 2031, Kirklees will be a great place to live, work and invest in … Development will have taken place in a sustainable way (balancing economic, social and environmental priorities) and by making efficient and effective use of land and buildings supported by necessary infrastructure and with minimal effect on the environment … The local character and distinctiveness of Kirklees and its places will be retained. The natural, built and historic environment will be maintained and enhanced through … enhancement of green infrastructure … enhancement of*

distinctive and contrasting landscapes, tree and woodland protection … the enhancement of biodiversity and geodiversity and the protection and enhancement of heritage assets."

The strategic objectives set out in Section 4.3 of the Plan summarise the measures needed to deliver the vision. It states that all proposals in the Local Plan should be consistent with one or more of the objectives. The relevant ones in this case being:

1. Support the growth and diversification of the economy, to increase skill levels and employment opportunities including the provision of a high quality communication infrastructure.

… [2, 3, 4, 5] …

6. Protect and improve green infrastructure to support health and well-being, giving residents access to good quality open spaces, sport and recreation opportunities, and to support habitats, allowing wildlife to flourish.
7. Promote development that helps to reduce and mitigate climate change, and development which is adapted so that the potential impact from climate change is reduced and to help the transition towards a low carbon economy.
8. Protect and enhance the characteristics of the built, natural and historic environment, and local distinctiveness which contribute to the character of Kirklees, including the South Pennine Moors, Moorland fringe and the area's industrial heritage.

LP9: Supporting Skilled and Flexible Communities and Workforce states that Wherever possible, proposals for new development will be strongly encouraged to contribute to the creation of local employment opportunities within the district.

LP10: Supporting the Rural Economy states that the economic performance of the rural economy will be improved by several measures including increasing local employment opportunities. In addition, it specifies supporting farm diversification schemes, where the proposal would not adversely affect the management and viability of any farm holding.

LP21: Highways and Access states that proposals shall demonstrate that they can accommodate sustainable modes of transport and be accessed effectively and safely by all users. New development will normally be permitted where safe and suitable access to the site can be achieved for all people and where the residual cumulative impacts of development are not severe. Proposals must provide enough information and demonstrate mitigation measures needed to avoid a detrimental impact on highway safety and the local highway network. More specifically the policy sets out that all proposals must ensure the safe and efficient flow of traffic within the development and on the surrounding highway network; be accompanied by a supporting Transport Assessment; provide adequate layout and visibility; and encourage sustainable travel modes.

Policy LP24: Design establishes that good design should be at the core of all proposals and should be considered at the outset of the development process, ensuring that design forms part of pre-application consultation of a proposal and proposals should promote good design by ensuring. While the policy is not primarily focussed on renewable energy development, the principles of good design which it sets out still apply – those being:

- form, scale, layout and details which respects and enhances the character, heritage assets and landscape;
- a high standard of amenity; maintaining appropriate distances between different uses and incorporating means of screening where necessary;
- high levels of sustainability;
- development which contributes towards enhancement of the natural environment, supports biodiversity and connects to and enhances ecological networks and green infrastructure; and

- the retention of valuable or important trees and where appropriate the planting of new trees and other landscaping to maximise visual amenity and environmental benefits.

Policy LP26: Renewable and Low Carbon Energy is specifically relevant to the Proposed Development. It is positively worded stating that renewable and low carbon energy proposals will be supported and planning permission granted where the following criteria are met:

a. the proposal would not have an unacceptable impact on landscape character and visual appearance of the local area, including the urban environment;
b. the proposal would not have either individually or cumulatively an unacceptable impact on protected species, designated sites of importance for biodiversity or heritage assets;
c. the statutory protection of any area would not be compromised by the development;
d. any noise, odour, traffic or other impact of development is mitigated so as not to cause unacceptable detriment to local amenity;
e. any significant adverse effects of the proposal are mitigated by wider environmental, social and economic benefits.

The policy justification roots this policy in the NPPF which requires Local Plans to plan positively to deliver renewable and low carbon technology developments, to help tackle climate change and address the environmental role of planning with the outcome of helping to meet the UK's legally binding target to reduce carbon emissions by 80% on 1990 levels by 2050.

It also explains how the council has considered the potential low carbon and renewable technologies that can be developed within the district through The Renewable and Low Carbon Energy Study, by Maslen (September 2010) which addresses Kirklees specifically, and The Low Carbon and Renewable Energy Capacity in Yorkshire and Humber, by Aecom (March 2011) which also considers the potential for different technologies in Kirklees within the Yorkshire and Humber Region context. The result is that the policy justification specifically identifies solar PV as a technology type that offers opportunities for renewable and low carbon energy development.

Furthermore, the policy justification identifies (at paragraph 12.16) that this policy will be delivered by taking a positive approach to applications for renewable and low carbon technology developments that meet the appropriate criteria. It expressly links LP26 with the strategic objective to *"promote development that helps to reduce and mitigate climate change, and … to help the transition towards a low carbon economy."*

Policy PL27: Flood Risk restates the National policy requirement for the Sequential test to be applied, and in this District, also passed, and it states that proposals must be supported by an appropriate site specific Flood Risk which takes account of all sources of flooding set out in the Strategic Flood Risk Assessment and demonstrates that the proposal will be safe throughout the lifetime of the development (taking account of climate change). The proposal must also not increase flood risk elsewhere and where possible should reduce flood risk. Mitigation measures, where necessary, should be proposed.

Policy LP30 Biodiversity & Geodiversity establishes that the council will seek to protect and enhance the biodiversity and geodiversity of Kirklees, including the range of international, national and locally designated wildlife and geological sites, Habitats and Species of Principal Importance and the Kirklees Wildlife Habitat Network. Specifically development proposals are required to:

(i) result in no significant loss or harm to biodiversity in Kirklees through avoidance, adequate mitigation or, as a last resort, compensatory measures secured through the establishment of a legally binding agreement;

(ii) minimise impact on biodiversity and provide net biodiversity gains through good design by incorporating biodiversity enhancements and habitat creation where opportunities exist;

(iii) safeguard and enhance the function and connectivity of the Kirklees Wildlife Habitat Network at a local and wider landscape-scale unless the loss of the site and its functional role within the network can be fully maintained or compensated for in the long term;

(iv) establish additional ecological links to the Kirklees Wildlife Habitat Network where opportunities exist; and

(iv) incorporate biodiversity enhancement measures to reflect the priority habitats and species identified for the relevant Kirklees Biodiversity Opportunity Zone.

LP32: Landscape Proposals states that proposals should be designed to take into account and seek to enhance the landscape character of the area considering in particular:

a. the need to protect the setting and special qualities of the Peak District National park, views in and out of the park and views from surrounding viewpoints;
b. the setting of settlements and buildings within the landscape;
c. the patterns of woodland, trees and field boundaries;
d. the appearance of rivers, canals, reservoirs and other water features within the landscape.

The policy justification demonstrates that the Council understands that landscape character includes a consideration of the natural elements of an area (e.g. geology, topography and vegetation) and human elements (e.g. settlement form and agricultural activities); that variations in the natural and human elements are what make one landscape different from another, and; understanding different landscape characters helps to ensure that development is sensitive to its location and contributes to environmental, social and economic objectives set out in the plan. It recognises that the landscape of Kirklees is widely varied and diverse, often as a result of past human influence and interaction with the landscape, particularly in terms of the exploitation of geological deposits of coal and iron.

LP33: Trees seeks to prevent development that would threaten trees or woodlands of significant amenity and sets a preference for retention of any valuable or important trees where they make a contribution to public amenity, the distinctiveness of a location or contribute to the environment.

LP34: Conserving and Enhancing the Water Environment seeks to avoid deterioration of water courses or water bodies by conserving and, where practicable, enhancing the water environment. To achieve this proposals are encouraged to implement certain strategies which includes adoption of sustainable drainage systems and surface water management.

LP35: Historic Environment applies the principles established in national policy to ensure development proposals affecting a designated heritage asset (or an archaeological site of national importance) preserve or enhance the significance of the asset and where there is harm or loss, development will only be permitted where it can be demonstrated that the proposals would bring substantial public benefits that clearly outweigh the harm, or meets the other exceptions identified in the NPPF (paragraph

Proposals should retain those elements of the historic environment which contribute to the distinct identity of the Kirklees area and ensure they are appropriately conserved, to the extent warranted by their significance, also having regard to the wider benefits of development. Specifically LP35 requires that consideration is given to the need to ensure that proposals maintain and reinforce local distinctiveness and conserve the significance of designated and non-designated heritage assets.

Policy LP52: Protection and Improvement of Environmental Quality requires that proposals which have the potential to increase pollution from various sources including noise, vibration, light, dust and other forms of pollution must be accompanied by an evaluation of impacts and incorporation of measures

to prevent or reduce the pollution, so that it does not reduce to an unacceptable level, the quality of life and well-being of people, and importantly, that where possible, all new development should improve the existing environment.

Policy LP53: Contaminated and Unstable Land requires that development which is on land that is unstable, currently contaminated or suspected of being contaminated so includes the submission of a contamination assessment and/or land instability risk assessment.

Section 9.1.1. of the Plan relates to Development in the Greenbelt which reiterates the emphasis the NPPF places on the role and purpose of the Green Belt, making it one of the intrinsic character and value of it one of the core principles underpinning the Green Belt policies in the Local Plan.

In this section the Local Plan lists the five purposes which Greenbelt is designed to serve:

- to check the unrestricted sprawl of large built-up areas;
- to prevent neighbouring towns merging into one another;
- to assist in safeguarding the countryside from encroachment;
- to preserve the setting and special character of historic towns; and
- to assist in urban regeneration, by encouraging the recycling of derelict and other urban land.

The text recognises that inappropriate development is by definition harmful to the Green Belt and so should not be approved unless very special circumstances exist that would outweigh the harm so caused. It is important that where such very special circumstances exist, the development is not harmful to the visual amenity of the Green Belt and proposals should have regard to all other relevant polices in the plan. These include the use of high quality materials, a design that is sensitive to its Green Belt setting, consideration of the amenity of neighbours and in all cases that any impact on openness is kept to a minimum.

5 The Planning Appraisal

In determining an application for planning permission, a decision maker is required by Section 70(2) of the Town and Country Planning 1990 Act to have regard to the provisions of the development plan so far as material to the application. Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires that a determination *"must be in accordance with the plan unless material considerations indicate otherwise".*

The Courts have determined that it is enough that a proposal accords with the Development Plan when considered as a whole. It is therefore not necessary to accord with each and every policy contained within the Development Plan. Indeed, it is not at all unusual for Development Plan policies to pull in different directions[1].

The local development plan for the purposes of determining the Application are the following plans, in so far as they are consistent with the NPPF: The Kirklees Local Plan - adopted on 27 February 2019 comprising the Strategy and Policies document, Allocations and Designations document and associated Policies Map.

The NPPF is also a key material consideration. It holds a presumption in favour of sustainable development which states that for decision making this means "approving development proposals that accord with an up to date development plan without delay" (paragraph 11c) and in paragraph 12 reminding decision makers that that the presumption in favour of sustainable development does not change the statutory status of the development plan as the starting point for decision making.

This section contains a detailed analysis of the Proposed Development against the identified relevant national and local planning policies and other material planning considerations. The key issues for the determination of the Application are:

- The principle of the development as renewable energy;
- Landscape and visual impacts;
- Cultural heritage impacts
- Biodiversity impacts;
- The use of agricultural land;
- Farm diversification;
- Impacts on amenity;
- Flood risk impacts; and
- Traffic impacts and access;
- Green Belt.

5.1 The Principle of the Development as Renewable Energy

The Proposed Development comprises a solar farm, a renewable energy generating station supplying up to 49.9MW of clean energy to the National Grid.

[1] Laura Cummins and London Borough of Camden, SSETR and Barrett Homes Limited [2001]; R. v Rochdale MBC ex parte Milne [2000] & City of Edinburgh Council v. Secretary of State for Scotland [1997]

The use of best available technology on the Site aims to maximise the use and productivity of the land for the generation of renewable energy.

The Glossary of the NPPF defines renewable energy as covering those energy flows that occur naturally and repeatedly in the environment including from the sun. The Proposed Development meets the definition therefore of renewable energy as defined in national planning policy.

National policy is strongly supportive of renewable energy as a means of meeting our increasing energy demands, tackling climate change and transitioning to a prosperous and low carbon sustainable economy. Privately funded, large scale solar developments such as the Proposed Development are recognised as being not just necessary but central to meeting an urgent need.

No-where in national or local policy is there a requirement to demonstrate the need for renewable energy development. The urgency of the need for substantially greater quantities of renewable energy (including large scale solar) is self-evident in light of the step change in Government energy policy driven by its declared Climate Emergency to achieve a 100% reduction in greenhouse gas emissions by 2050 (Net Zero). This is a legally binding target.

There is no requirement in either national or local planning policy to undertake a life cycle analysis of the Proposed Development. Policy at all levels makes it clear that solar power is a renewable and low carbon energy source and as such should be supported where appropriately located. The Design and Access Statement (Document Ref: R004) explains how the Proposed Development has been designed to be resilient to climate change. This could be secured under a planning condition requiring the submission and approval of a Decommissioning Plan in the event planning permission for the Proposed Development was to be granted.

The NPPF paragraph 11 and the local development plan policy LP1 contain a presumption in favour of sustainable development – meeting the needs of the present without compromising the ability of future generations to meet their own needs (paragraph 7 of the NPPF).

NPPF paragraph 152 states that the planning system should support the transition to a low carbon future and support renewable and low carbon energy and associated infrastructure. Paragraph 157 goes onto state that in determining planning applications, local planning authorities should expect new development to “take account of landform, layout, building orientation, massing and landscaping”. With paragraph 158 concluding that when determining planning applications for renewable and low carbon development, local planning authorities should “not require applicants to demonstrate the overall need for renewable or low carbon energy, and recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions” and “approve the application if its impacts are (or can be made) acceptable”.

Policy LP26 of the local development plan promotes and encourages the development of renewable energy schemes where certain criteria are met, in summary, that:

a. the proposal would not have an unacceptable impact on landscape character and visual appearance of the area – **this is addressed in section 5.2 of this report**
b. the proposal would not have an unacceptable impact on protected species, designated sites of importance for biodiversity or heritage assets - **this is addressed in section 5.4 of this report**
c. the statutory protection of any area would not be compromised by the development – **this is also addressed in section 5.4 of this report**
d. any noise, odour, traffic or other impact of development is mitigated so as not to cause unacceptable detriment to local amenity – **this is addressed in sections 5.7 & 5.9 of this report**

e. any significant adverse effects of the proposal are mitigated by wider environmental, social and economic benefits – **this is addressed in the concluding section of this report**

The Proposed Development would supply 49.9MW of clean renewable electricity for distribution to the National Grid, contributing to the objective of sustainable development in accordance with NPPF paragraph 11, local development plan policy LP1 and increasing renewable energy generation in accordance with NPPF paragraph 152, and local plan policy LP26. This quantity of additional renewable energy is a significant contribution to meeting both national and local renewable energy targets. It is a significant environmental benefit, displacing as it does approximately 23,300 tonnes per year of CO_2 emissions and meeting the electrical needs of approximately 15,200 homes. This is being provided at a time of Climate Emergency and swiftly after the publication of the Intragovernmental Panel on Climate Chance, titled "AR6: Climate Change 2021 – The Physical Science Basis" which confirmed *"It is unequivocal that human influence has warmed the atmosphere, ocean and land."*

The assessments accompanying the Application make it clear that the Proposed Development as mitigated would not significantly adversely affect landscape designations, biodiversity or the historic environment, and would in fact deliver a significant biodiversity net gain of 94.8% for habitat and 32% for hedgerow would be delivered. Safe road access has been provided, and residential amenity has been demonstrated to be protected from noise and glint and glare impacts. Soil health would be improved as a result of the Proposed Development, there would be no permanent loss of best and most versatile agricultural land and sheep grazing around the solar arrays would maintain the land in agricultural use. The Proposed Development would offer an important form of farm diversification of benefit to the local economy. The Best Available Technology is being used to maximise the energy efficiency of the Proposed Development. It is therefore, a sustainable form of development.

In applying the relevant national and local policy therefore regarding the principle of the development as a sustainable low carbon renewable energy source, it is clear that the Proposed Development is fully compliant. The assessments undertaken to inform the scheme design have not indicated any material reason to do otherwise than approve this proposal.

5.2 Landscape and Visual

The NPPF (paragraph 127) and local development plan policy LP32 requires the protection or enhancement of the landscape and visual quality of the area. In particular, within Special Landscape Areas development will only be permitted where the special landscape qualities of the area are maintained or enhanced.

The likely landscape and visual impacts of the Proposed Development have been fully assessed in the submitted LVIA (Document Reference R010).

Both the Design and Access Statement (Document Ref: R004) and the LEEP contained within the LVIA (Document Ref R010) it, make clear that great care has been taken in designing a high-quality proposal, with the site layout taking its lead from the environmental and community sensitivities where-ever possible. Specifically, this has taken the form of sympathetic treatment of PRoWs to enhance their recreational amenity value and the moving a site access away from residential properties after concerns were raised through the webinar event. New planting of native species woodland and hedgerows is proposed across the Site and the Applicant is willing to take the professional advice of the EcIA which recommends a Management Plan to control Japanese Knotweed currently on the site.

The LVIA considers that the existing vegetation pattern in the local landscape provides an appropriate context for further vegetation to be included as part of the Proposed Development. Considering the scale, extent and duration of effects arising from the Proposed Development, the LVIA states:

*"**Scale:** The scale of existing landscape elements that would be lost and the scale of change that would arise from the introduction of new elements is considered to be medium. The various tree belts and woodlands that help to visually break up the different parcels within the Site are particularly important in this respect.*

***Extent:** The extent of the impact of the Proposed Development on landscape character would largely be contained within the Site itself and to parts of the local landscape within a 0.5 km radius of the Site. There would be minor experiential/perceptual effects on the wider setting of the Site.*

***Duration:** The Proposed Development would be operational for a period of 40 years and the duration of effects arising would, therefore, be medium-to-long-term when considering the establishment of mitigation.*

***Reversibility:** The impact of the development could be reversed in the future with removal of the solar PV development from the Site."*

In summary, while effects of the Proposed Development on the site itself are assessed to be 'major adverse', effects on the surrounding area are assessed to be 'minor/negligible adverse' (see Table 6.1 in the LVIA Document Ref R010). Having considered impacts on specific residential properties, and users of PROWs, the overall conclusion of the LVIA is that the development is 'well located'. The scheme includes extensive new hedgerows and hedgerow enhancements, major effects are limited to the immediate environs of the site, and implementation of the LEEP would help to integrate the solar development into the surrounding landscape – the effectiveness of which would improve over the medium to long term. Upon decommissioning of the development, the adverse effects will be removed and the gains will remain beyond the life of the development leaving a positive landscape legacy.

In view of the above findings, it is considered that the Proposed Development would therefore accord with the relevant paragraphs of the NPPF and local development policies LP1, LP26, LP32 and LP33.

5.3 Cultural Heritage

A desk-based study, walkover survey and site visits have been carried out in order to identify assets that may be affected by the Proposed Development and establish their current condition and baseline setting. A Geophysical survey has been carried out and interim results have also informed the assessment.

There are two scheduled monuments (Shaft head near Caphouse Colliery and New Hall moat and fishpond), 11 Listed Buildings (Grade II* and Grade II) and one conservation area within 1km of the proposed development. There are no registered parks and gardens or World Heritage Sites within 1km.

A walkover survey of the site identified the main features of each Parcel and considered this alongside a desk based assessment including consideration of data from the Heritage Environment Record. The archaeological potential and impact was then considered, and the significant of each feature of interest considered.

Construction of the Proposed Development has the potential to disturb, damage or remove archaeological remains. This can include localised damage to archaeological remains by the insertion of piles, truncation of archaeological deposits through topsoil removal for access tracks, site compounds and damage through excavation of trenches for cables.

The aggregate impact of a proposed development is an assessment of the overall effect of a single development on multiple heritage assets. While aggregate impact is difficult to quantify, based on the restricted number of assets where any appreciable effect is likely on this site, the aggregate impact of this development is negligible.

"Cumulative impacts affecting the setting of a heritage asset can derive from the combination of different environmental impacts (such as visual intrusion, noise, dust, and vibration) arising from a single development or from the overall effect of a series of discrete developments. In the latter case, the cumulative visual impact may be the result of different developments within a single view, the effect of developments seen when looking in different directions from a single viewpoint, of the sequential viewing of several developments when moving through the setting of one or more heritage assets."

The Setting of Heritage Assets 2011a, 25

The capacity of the landscape for absorbing the proposed change varies according to landscape character. The Heritage Assessment (Document Ref: R009) states that the proposed development would have a 'slight cumulative impact' in relation to the existing landscape, but that cumulative effect would not be readily appreciable from any distance. On that basis, an overall assessment of negligible cumulative impacts us made.

In terms of indirect impacts, most of the designated heritage assets in the wider area are located at such a distance to minimise the impact of the proposed development, or else the contribution of setting to overall significance is less important than other factors. The landscape context of many of these buildings and monuments is such that they would be partly or wholly insulated from the effects of the proposed development by a combination of local blocking from trees, buildings, or embankments, or that other modern intrusions have already impinged upon their settings.

However, the size of the development and the proximity of the panels to the Grade II milestone near Denby Lane, Denby Grange Barn, and the undesignated Rookery Farm, would indicate an appreciable level of impact (negative/minor). The proximity of the Hope Pit Conservation Area results in an assessment of up to negative/moderate - although this could be mitigated through design. The Heritage Assessment suggests that the size of the development, the incorporation of the former park, and the lack of similar developments in this fairly (now) rural area, could indicate an impact of up to negative/moderate for the historic landscape, but, importantly, it also notes that the Proposed Development should be seen in the context of a technology that is arguably a linear succession to the coal industry that once dominated the area and *"On that basis the impact of the proposed development can be assessed as negative/minor overall."*

With reference to NPPF Paragraph 202, this is less than substantial harm, and that case is out-weighed by the significant benefits of this scheme outlined in other sections of this document. The Proposed Development therefore accords with NPPF Paragraph 189 and 194 and Local Plan policy LP35.

5.4 Biodiversity

Both national and local policy place great importance on the protection and enhancement of biodiversity, including achieving a 'biodiversity net gain' when mitigating impacts of new development. A standardised approach to calculating biodiversity losses and gains resulting from development has recently been formally adopted by DEFRA although has widely been in use in the determination of planning application for some time owing to the anticipated and justified need to deliver such gains. Indeed, nationally and locally important nature conservation sites should be protected, along with protected species unless the benefits of the proposed development outweigh the harm.

The likely effects of the Proposed Development on nature conservation and biodiversity have been assessed in the submitted Preliminary Ecological Appraisal by Western Ecology (Document ref: R011.

A desk study, extended Phase 1 habitat survey, biodiversity impact assessment calculation, and great crested newt surveys were undertaken in June 2021.

The overwhelming majority of the Site consists of arable farmland, which is not a Habitat of Principal Importance (HPI). The only HPI within the Site are the hedgerows within the boundaries of the Proposed Development. Other habitat types identified on the site were improved grassland, tall ruderal

To ensure compliance with nature conservation legislation and planning policy, the following recommendations are made in the PEA:

Amphibians

There was unknown potential for Great Crested Newts to be present in the land and water based habitats associated with the Site. The recommended eDNA surveys were undertaken on 25th June 2021 which confirmed the absence of newts and therefore negating and mitigation or compensation in the design of the scheme.

Badgers & Hedgehogs

There is potential that Badgers and or Hedgehogs may become trapped within site during the construction and operation phases. To prevent this, the Applicant will adopt the recommendations of the PEA which are:

- Site fencing along the boundaries should leave a gap of at least 5 metres wide between the fence and any woodland, hedgerow or wall boundary;
- Any trenches left open at night should have some means of escape for Badgers, such as the placement of a scaffolding board at one end;
- Any security fences should have a gap at each corner sufficient to allow Badgers to exit the Site should they gain entry. There is also potential for security fencing associated with the completed development to restrict movement across the Site. To prevent this from happening, all permanent fencing will have 'mammal scrapes' beneath them at intervals to allow Badgers and other mammals to continue to use the Site during the operational phase.

Bats - Roosting

Individual mature trees associated with hedgerows and field compartments provide an unknown potential for roosting bats. However, the proposed development does not include any works to trees and so further surveys are not required.

Birds

The footprint of the proposed development largely concerns the arable and improved grassland field compartments, which have some limited potential for ground nesting species such as Skylark. To prevent the risk of damaging or destroying any potentially active nests within the field compartments, if works will take place during the accepted nesting season (from March to August inclusive) ground nesting bird surveys should be completed prior to any construction activities within these areas. The Applicant will adopt this approach if necessary when the delivery programme is fixed.

The PEA also recommends that potential bird nesting habitats associated with field boundaries such as hedgerows, stone walls and woodland should also be protected from accidental damage during the construction phase by a suitable buffer zone, which has been factored into the proposed site layout (see Drawing B001 Overall Layout Planning B001 V3.3 in Document R002).

If construction activities are also likely to impact any of these areas during the nesting season, a pre-works nesting bird survey of these areas will be undertaken.

Reptiles

Habitats such as hedgerows, stone walls and woodland provide low suitability for common reptiles such as Slow Worm and Grass Snake. While these areas will not be lost to the development, site preparations may involve some clearance of these habitats. To avoid risk of harm or injury to reptiles during construction a 2m protection zone for hedgerows and woodland and Reasonable Avoidance Measures (RAMS) adopted. Such sympathetic clearance methods will avoid adverse impact to reptiles within these habitats.

Clearance works can be undertaken in September to October inclusive, when nesting birds are absent, but reptiles are still active and able to disperse freely.

5.5 Biodiversity Net Gain

The Biodiversity Net Gain Assessment (accompanying the EcIA Document Ref: R011), calculated using the Defra Matric, calculates that the Proposed Development would deliver an impressive 94.8% overall biodiversity net gain and 32% net gain specifically in relation to hedgerow improvements and provision. This is particularly impactful in view of the Kirklees Biodiversity Opportunity Zone, the Pennine Foothills within which the site is located, and areas of Wildlife Habitat Network which border the site - both of these designations are included in the Policies Map for the Kirklees Local Plan.

Through undertaking these assessments and surveys, with a commitment to deliver the mitigation and timings of works as recommended in the EcIA, and through implementation of the LEEP, the Applicant is able to comply with policy LP26 of the local development plan and Section 15 of the NPPF.

5.6 Use of Agricultural Land

NPPF paragraph 175 seeks to resist the loss of Best and Most Versatile (BMV) land, meaning grades 1, 2 and 3a as defined in the NPPF Glossary and the MAFF 1988 guidance for grading the quality of agricultural land. Guidance requires the proposed use of any agricultural land to be necessary and for poorer quality land to be used in preference to higher quality agricultural land.

An assessment of agricultural land quality, involving a desktop study and a detailed Agricultural Land Classification (ALC) survey, has been undertaken to determine the quality of agricultural land of the Site (the Study Area). The results of this survey are presented in detail in the Agricultural Land Classification (Document Ref: R012).

The ALC system provides a framework for classifying land according to the extent to which its physical or chemical characteristics impose long-term limitations on agricultural use. The ALC system divides agricultural land into five grades (Grade 1 'Excellent' to Grade 5 'Very Poor'), with Grade 3 subdivided into Subgrade 3a 'Good' and Subgrade 3b 'Moderate'. Agricultural land classified as Grade 1, 2 and Subgrade 3a falls in the 'best and most versatile' category.

A semi-detailed ALC survey of the approximately the Site was carried out in May 2021 with detailed survey involved examination of the soil's physical properties at 21 locations (the locations of which are shown in Figure 2 of Document Reference R012).

The maintenance, and improvement, of soil health is a material consideration when deciding if a development is appropriate on agricultural land. It is relevant to this assessment that the Proposed Development is temporary and reversible, and that *"the management of the land under solar PV panels as grassland can benefit soil health."* The Assessment explains how soil structure can impact the

movement of water through the soil and that well aerated soil encourages healthy plant (crop) growth and an abundance of soil fauna and aerobic microbes. The Assessment explains that:

"Soils are habitats for millions of species, ranging from bacteria, fungi, protozoa, and microscopic invertebrates to mites, springtails, ants, worms and plants. Soil biota are strongly influenced by land management. Modern farming has led to the loss of soil biodiversity. Changes in land management practice and land use can have large effects on soil biodiversity over relatively short time scales. ***Reducing the intensity of management, introducing no-tillage management, and converting arable land to pasture, such as grassland under solar PV arrays, has substantial beneficial effects****." [bold added].*

Taking into account climate/rainfall, gradient, micro-relief, and risk of flooding, the Assessment concludes that just 18% of the site is Subgrade 3a (Good), 28% is subgrade 3b (Moderate) and 54% is Grade 4 (Poor).

Grade	% of Study Area
Subgrade 3a (Good)	18%
Subgrade 3b (Moderate)	28%
Grade 4 (Poor)	54%

Table 3: Agricultural Land Classification Impacts

The Ministry of Agriculture, Fisheries and Food (MAFF) provisional (Pre 1988) ALC information shows that the Kirklees District has a high proportion of agricultural land in Grade 4, i.e., 42.2% compared with 14.1% in England as a whole. Therefore, the presence of 46ha (54%) of agricultural land in Grade 4 at the Site is unsurprising, as this quality of land is widespread in the District.

MAFF has carried out detailed (Post 1988) ALC surveys to the south of the Site and has determined a mixture of Grade 2, Subgrade 3a, Subgrade 3b and Grade 4. Therefore, the occurrence of approximately 70 ha, or 82%, of agricultural land at the Site represents some of the poorest quality land available in the area in terms of the National Planning Policy Framework (2021).

Given that the management of grassland under solar PV panels can improve soil health, such as increasing soil organic matter (SOM), and hence soil organic carbon (SOC), increasing soil biodiversity, and improving soil structure which is consistent with aims and objectives for improving soil health in the Government's 25 Year Plan for the Environment. The Assessment concludes, then that:

"… the reversible development of agricultural land at this Site for the proposed Low Farm Solar Farm at Flockton Green would not significantly harm national interests regarding agricultural land quality and soil."

The use of agricultural land is necessary in this case as the location of the Proposed Development is driven first and foremost by its requirement to be close to an available grid connection point, i.e. the Lady Ings Farm POC which has capacity, and the availability of which has been secured under agreement with the Applicant. Options for POS are limited by the District Network Operator.

In conclusion while the Proposed Development affects Best and Most Versatile agricultural land it would not result in the permanent loss of BMV land. It would remain in agricultural use through sheep grazing; it would deliver significant biodiversity improvements; it would improve soil health; and is the proportion of the Site which is BMV land (Grade 3a) forms less than 20% of the total Site area, which means the impact is quite restricted. The development of agricultural land at this Site would not,

therefore, significantly harm national agricultural interests in accordance with NPPF paragraph 171[2] and would comply with local development plan policies LP1 and LP52.

5.7 Farm Diversification

There is support in NPPF paragraph 84 (b) and local development plan policies LP1 and LP34 support farm diversification projects (including renewable energy) that meet sustainable development objectives, help support the rural economy and encourage agricultural enterprise, subject to development proposals being well designed and of a type, size and scale appropriate to a rural setting.

Farm diversification can generally be understood to be 'the entrepreneurial use of farm resources for a non-agricultural purpose for commercial gain'. Hence, diversification reflects the reduced dependence of farmers on agriculture as a source of income. Diversification also implies entrepreneurial activity on behalf of the farmer.

Due to the relatively low income from farming, many farmers have had to diversify to secure an economically sustainable profit. The agricultural sector particularly is experiencing a very challenging period as the UK has left the EU. The UK is no longer part of the EU's Common Agricultural Policy (CAP), or its related farm payment/subsidy schemes. The Government is moving toward a "public money for public goods" approach whereby farmers will be paid in future for protecting the countryside, planting trees, nurturing wildlife habitats and taking measures to prevent flooding. The Path to Sustainable Farming: An agricultural Transition Plan 2021 to 2024 states that:

"*Domestically, reaching our Net Zero target is one of this government's top priorities. We know that reaching Net Zero will be a challenge, requiring action across the economy. This will mean changes to the way land is managed to reduce agricultural greenhouse gas emissions. We will support the sector to make these changes through the schemes set out in this plan."*

While this does not specifically refer to renewable energy or solar in particular, the link between the two is clear and it would be surprising if the live national pilot schemes for Environmental Land Management which run from 2021 – 2025 do not include some assessment of solar and renewables in the mix, given the leading role landowners and the renewables industry have taken in this direction through purely privately funded developments.

Renewable energy is an important form of farm diversification, recognised by the National Farmers Union (NFU) as an important step towards making British agriculture carbon neutral within two decades. As farming is responsible for around a tenth of UK greenhouse gas emissions, it is likely that renewable energy farm diversification projects will be an important step to help the sector reach net zero, while also delivery many of the biodiversity and soil quality benefits that can be gained from allowing intensively farmed arable land to lie fallow or be grazed for the life of a solar development.

Farm diversification is an important aspect of long-term viability and productivity of farms and the Proposed Development has been sensitively designed and located such as to comply with NPPF paragraph 84 (b) and local development plan policies LP1 and LP34.

[2] Where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality. Footnote 53 of the NPPF.

5.8 Amenity

The need to protect the amenity of the local area and nearby sensitive receptors through minimising visual and noise impacts and effects of glint and glare is a requirement of both national and local planning policy. Visual impacts have been assessed in the Landscape and Visual Impact Assessment (Document Ref R010) and found to be acceptable (refer to section 5.2 above), the effects of noise and glint and glare are considered in turn below.

Noise

A Noise Impact Assessment has been produced to accompany the Application (see Document Ref: R007). The assessment considers the potential noise generation from the plant associated with the Proposed Development, with respect to existing sound levels in the area. The assessment methodology contained in British Standard 4142:2014+A1:2019 Method for rating and assessing industrial and commercial sound has been used in conjunction with supplementary acoustic guidance.

The assessment evaluates the likely impacts associated with the proposed solar farm likely to be experienced at nearby existing sensitive receptors, based on manufacturer noise levels and a baseline noise levels at the site. A noise survey was carried out to establish the existing noise environment in the vicinity of existing sensitive receptors, during both daytime and night time periods. Road traffic noise from the A642 (Wakefield Road) was the dominant noise source at monitoring locations 3 and 4. Bird song and wildlife noise were regularly audible across the site and occasionally dominated at locations 1 and 2 during daytime and night time periods.

When considering the proposed development in context, the predicted noise impact is considered to be low to negligible. The assessment demonstrates that the Proposed Development will give rise to noise impacts that would be categorised as No Observed Adverse Effect Level (NOAEL)[3] within the PPG Noise guidance. The amenity of the closest residential receptors would therefore not be adversely affected by noise arising from the Proposed Development.

Glint and Glare

Solar panels are made up of silicon based photovoltaic (PV) cells that are encased in a glass covering. Glass does not have a true specular reflection but does reflect a certain magnitude of light. Reflection of sunlight from PV panels is unwanted by the Applicant. This is because the greater the amount of light which can be captured at the PV cell, the greater the amount of electricity that can be produced. The manufacturers of the panels therefore use anti–reflective coating in the glass that changes the reflectivity from specular distribution to diffuse distribution. Therefore, as light falls onto the PV panels, most of the sunlight is transmitted to the cell beneath the glass with only a small amount reflected back in a multiple of angles and magnitudes. The result is an object that is perceived to have very little glare. Nonetheless, and for the purposes of completeness and in order to provide a robust assessment of the Proposed Development, a Glint and Glare Assessment has been prepared (see Document Ref: R014). The assessment relates to the possible effects upon surrounding road users and dwellings.

The definition of glint and glare can vary. However, the definition used in the assessment is aligned with the Federal Aviation Administration (FAA) in the United States of America, which is generally used for such assessments applied to British scenarios, is as follows:

[3] The definition of *No Observed Adverse Effect Level* in PPG Noise is reproduced below:

"Noise can be heard, but does not cause any change in behaviour, attitude or other physiological response. Can slightly affect the acoustic character of the area but not such that there is a change in the quality of life."

- Glint – a momentary flash of bright light typically received by moving receptors or from moving reflectors;
- Glare – a continuous source of bright light typically received by static receptors or from large reflective surfaces.

In context, glint will be witnessed by moderate to fast moving receptors whilst glare would be encountered by static or slow-moving receptors with respect to a reflector. The term 'solar reflection' is used in this report to refer to both reflection types i.e. glint and glare.

There are two aerodromes within 30km of the Site, but none were considered to need detailed assessment because the Proposed Development is located outside their respective safeguarding buffer zones.

The assessment concludes that there are no glint and glare impacts at residential receptors, and once mitigation measures are taken into account, there are similarly no glint and glare impacts for road receptors. The proposed mitigation measures are that hedgerows will be infilled/gapped up and maintained to a height of 2.5m around the Proposed Development. This has been incorporated in the Landscape and Ecology Enhancement Plan (LEEP) that accompanies the LVIA (Document Ref: R010).

Overall, therefore the Proposed Development is acceptable in amenity terms and meets the requirements of the NPPF paragraph 174(e) and local development plan policies LP21 and LP52.

5.9 Flood Risk

A Flood Risk Assessment (FRA) and Drainage Strategy has been prepared to accompany the Application (see Document Ref: R008) and considers the impact of the Proposed Development on the existing hydrology in the area.

Whilst the site is located within Flood Zone 1, the total site area exceeds 1 hectare and therefore, under National Planning Guidance, a Flood Risk Assessment is required.

Neither the EA nor the Calder Catchment Strategic Flood Risk Assessment has identified the site or surrounding area as having been impacted by any previous incidents of fluvial flooding. Taking into account the potential effects of climate change, given the small catchment size of the streams to the north and south, any increase in flood risk is considered unlikely to be of a magnitude so as to result in on-site fluvial flooding. The site is therefore determined to be at 'low' risk of fluvial flooding.

The EA Surface Water Mapping also shows the majority of the nine parcels of land to be at 'very low' risk of flooding from surface water.

The EA's Long Term Flood Risk Mapping indicates the depths of the identified flooding in Parcels 3-6 to be shallow and 'below 300mm', and likely to be associated with local depressions or channels.

Given the shallow depths indicated, any surface water will likely travel as sheet flow with the prevailing topographies. As the remaining parcels sit outside any large 'high' risk areas it is concluded that the risk of surface water flooding to the site is low.

While the potential effects of climate change could increase the frequency, depth and extent of on-site surface water flooding, given the sloping topographies, any increase in flood risk is considered unlikely to be of a magnitude which would result in a significant increase in the risk of on-site surface water flooding, as any surface water run-off will likely continue to be directed overland as shallow 'sheet-flow' and away from the site.

Sequential & Exception Tests

This assessment has demonstrated that the site is on land designated as Flood Zone 1 by the EA's Flood Zone Mapping, and is at low or negligible risk of flooding from all other potential sources. While an Exception Test is not explicitly required under the NPPG, measures to mitigate any 'residual' flood risks and to ensure that the proposed development will be safe for its lifetime have been considered.

This takes into account the vulnerability of site users, and seeks to avoid increasing flood risk elsewhere.

- the proposed solar panels will be fixed at a minimum of 0.8m above ground level to address any residual risk of surface water flooding.
- the finished floor levels (FFL) of the sub-stations and transformers will be set above the adjacent ground levels by a minimum of 300mm either by raising the floor level above proposed ground levels or sloping ground levels away from the building.
- Safe egress will be possible via the existing access points access roads off the A642 and Grange Lane, both of which are at low risk of flooding from all assessed sources.

Surface Water Drainage

Pre-development

Currently, no positive surface water drainage system serves any of the parcels of land, and therefore rainfall simply infiltrates the ground. In the event of prolonged or intense rainfall, any surface water run-off is expected to be directed overland as shallow 'sheet flow' into the shallow valleys running adjacent to the parcels. Flows will then likely be conveyed away from the site by the existing ditches, Unnamed Watercourses 1 and 2 and the Smithy Brook.

Post-development

While a portion of the site will contain solar photovoltaic panels, the remainder of the site area will comprise spacing between rows, field margins, and retained hedgerows. As rainfall will drain freely off the panels onto the ground beneath, it is *not* considered that the total surface area of the proposed solar photovoltaic panel array is impermeable surface.

This assumption is endorsed by the EA which has previously stated, with regard to a similar proposed solar farm site, that: *"We accept the premise that surface water volumes are unlikely to be exacerbated by the proposed development since the overall impermeable area will not be significantly altered".*

A study of the hydrological implications of solar farms (Cook, L.M. and McCuen, R.H. (2013) 'Hydrologic Response of Solar Farms', Journal of Hydrologic Engineering, 18: 536 - 541) also confirms that solar photovoltaic panels do not have a significant effect on the surface water run-off rate, volume or time to peak.

To address any potential effects from soil compaction during construction and operation, which might otherwise have the potential to increase surface water run-off, the proposed access tracks and temporary construction compounds will be formed pre-construction using permeable materials (compacted hardcore) which will limit ground compaction and associated surface water run-off intensification.

In summary, the proposed drainage strategy utilises the existing topography and natural drainage regime to ensure that any overland flows, will continue to be allowed to infiltrate to ground, or run-off overland into the existing surrounding ditches/watercourse, as is the existing arrangement.

With the proposed change from arable to grass cover and permeable compacted hardcore being used for tracks, this approach will maintain or improve the existing hydrological regime and the proposed development is therefore considered to result in a favourable drainage response. As such, a specific engineered drainage strategy is not considered necessary in order to control the hydrological response

of the site to rainfall and the Proposed Development accords with NPPF paragraphs 152 & 153 and local plan policies LP27 and LP34.

5.10 Traffic and Access

A CTMP has been prepared and accompanies the Application (see Document Ref: R006). This explains in detail the proposed Site access points, vehicle movements and the construction vehicle route from the strategic highway network to the Site.

It is expected that there will be approximately seven HGVs per day accessing the Site over the construction period. There will also be construction workers arriving at the Site in the morning and departing in the evening, although it is anticipated these will be minimised by use of minibuses to collect workers from their accommodation and transport to site in groups avoiding multiple individual vehicle movements.

The level of traffic forecast during the temporary construction phase is therefore low. It is concluded that construction traffic associated with the Proposed Development will not have a material effect on the safety or operation of the local highway network. The Site Manager will implement site management commitments made in the CTMP as the key means of mitigation. If required by the Highways Authority the delivery times can be adopted to avoid school pick up and drop off times.

Operational traffic is very low, at approximately one to two light van maintenance visits per month.

The existing PRoWs are not proposed to be diverted or closed and will remain open to users during the temporary construction period and during site operation.

Overall, the Proposed Development is acceptable in traffic and access terms and meets the requirements of the NPPF paragraph 111 and relevant local development plan policies.

5.11 Green Belt

In regard to assessing the Proposed Development in the Green Belt (see Document Ref: R010), the starting point is as set out by the NPPF (2021):

"The Government attaches great importance to Green Belts. The fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and their permanence" (paragraph 137).

Paragraph 138 goes on to state that:

"Green Belt serves five purposes:

a) *to check the unrestricted sprawl of large built-up areas;*
b) *to prevent neighbouring towns merging into one another;*
c) *to assist in safeguarding the countryside from encroachment;*
d) *to preserve the setting and special character of historic towns; and*
e) *to assist in urban regeneration, by encouraging the recycling of derelict and other urban land."*

Paragraph 147 states that inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances.

Paragraph 148 states:

"When considering any planning application, local planning authorities should ensure that substantial weight is given to any harm to the Green Belt. "Very special circumstances" will not exist unless the

potential harm to the Green Belt by reason of inappropriateness, and any other harm[4] resulting from the proposal, is clearly outweighed by other considerations."

Very special circumstances is thereby the outcome of a planning balancing exercise and the harms must be clearly outweighed by the benefits.

The policies in the NPPF set out those types of development that are appropriate (i.e. not inappropriate) in the Green Belt. The Proposed Development does not fall into any of the exceptions listed in paragraphs 149 of the NPPF. The Proposed Development is therefore considered to be inappropriate development within the Kirklees Green Belt (KGB).

The NPPF does however provide provision for renewable energy projects in the Green Belt. At paragraph 151 it states:

"When located in the Green Belt, elements of many renewable energy projects will comprise inappropriate development. In such cases developers will need to demonstrate very special circumstances if projects are to proceed. Such very special circumstances may include the wider environmental benefits associated with increased production of energy from renewable sources" (our emphasis).

Paragraph 151 of the NPPF adds, in relation to the improvement of the Green Belts, *"Once Green Belts have been defined, local planning authorities should plan positively to enhance their beneficial use, such as looking for opportunities to provide access; to provide opportunities for outdoor sport and recreation; to retain and enhance landscapes, visual amenity and biodiversity; or to improve damaged and derelict land."*

It is therefore necessary to apply the two tests of harm set out in the paragraph 144:

a. The amount of harm (if any) to the Green Belt; and
b. The amount of other harm (through the impact of development on highways, visual amenity or otherwise).

Thereafter it is necessary to carry out a planning balancing exercise (which is a matter of planning judgement) to establish whether any harm to the Green Belt is outweighed by other considerations including benefits of the Proposed Development and allowing for mitigation as the NPPF allows; and whether the necessary very special circumstances exist to approve the Application.

Section 19 of the Kirklees Local Plan specifically relates to the Green Belt, and subsection 9.1.1 to development in the Green Belt. It explains in the policy justification that Kirklees has an extensive area of land designated as Green Belt, representing about 70% of the total land in the district (excluding the Peak District National Park). The illustrates the challenge of finding land appropriate for large scale solar development needed to meet UK and local policy targets in this particular area. Entirely avoiding the KGB is not likely to be feasible alongside delivery of solar farms which are supported in other Plan policies.

5.11.1 Openness

The concept of "openness" in paragraph 137 of the NPPF is naturally read as referring back to the underlying aim of Green Belt policy that is *"to prevent urban sprawl by keeping land permanently open..."*. Openness is the counterpart of urban sprawl and is also linked to the purposes to be served by the Green Belt. It is not necessarily a statement about the visual qualities of the land, though in some cases this may be an aspect of the planning judgement involved in applying this broad policy

[4] The phrase "any other harm" means any harm, not only Green Belt harm (see Redhill Aerodrome [2014] EWCA Civ 1386).

concept. Nor does it imply freedom from any form of development; some forms of development are appropriate and as such are compatible with the concept of openness[5].

The word 'openness' is open-textured, and a number of factors are capable of being relevant when it comes to applying it to the particular facts of a specific case. Prominent among these will be factors relevant to how built up the Green Belt is now and how built up it would be if redevelopment occurs, and factors relevant to the visual impact on the aspect of openness which the Green Belt presents[6]. It is clear from '*Samuel Smith'* that visual impact is a factor that may be material to the assessment of openness, and it will be for the decision maker to determine whether or not it is to be taken into account in any individual case.

One factor which can affect appropriateness, the preservation of openness and conflict with Green Belt purposes, is the duration of development and the reversibility of its effects[7]. The Application is proposed for a lifetime of 40 operational years and is therefore considered to be relevant to its acceptability within the Green Belt.

The National Planning Policy Guidance provides further guidance to the decision maker under the heading of:

'What factors can be taken into account when considering the potential impact of development on the openness of the Green Belt?'[8]:

"Assessing the impact of a proposal on the openness of the Green Belt, where it is relevant to do so, requires a judgment based on the circumstances of the case. By way of example, the courts have identified a number of matters which may need to be taken into account in making this assessment. These include, but are not limited to:

- *openness is capable of having both spatial and visual aspects – in other words, the visual impact of the proposal may be relevant, as could its volume;*
- *the duration of the development, and its remediability – taking into account any provisions to return land to its original state or to an equivalent (or improved) state of openness; and*
- *the degree of activity likely to be generated, such as traffic generation."*

Paragraph 13 of the Planning Practice Guidance also provides specific guidance on solar farms stating that *"The deployment of large-scale solar farms can have a negative impact on the rural environment, particularly in undulating landscapes. However, the visual impact of a well-planned and well-screened solar farm can be properly addressed within the landscape if planned sensitively."*

5.11.2 Other Harm

As demonstrated in the sections above, consideration has been given to 'other harm' regarding heritage, biodiversity, agricultural land, farm diversification, amenity, flood risk, traffic and access. Landscape and visual impacts have also been assessed in relation to landscape character and visual receptors.

The supporting assessments are clearly set out below, indicating mitigating measures taken to reduce harm as part of the Proposed Development:

[5] R (oao Samuel Smith Old Brewery (Tadcaster) and others v North Yorkshire County Council [2020] UKSC 3 at [22]

[6] per Sales LJ Turner v Secretary of State for Communities and Local Government [2016] EWCA Civ 466 at [14]

[7] Europa Oil and Gas Ltd v Secretary of State for Communities and Local Government [2013] EWHC 2643 (Admin) at [67]; (upheld at [2014] EWCA Civ 825)

[8] Ref. ID: 64-001-20190722 published 22 July 2019

Assessment	Mitigation Measures	Harm	Report Ref:
Landscape and Visual	Input into the design to ensure suitable distances from PRoW, and location of key infrastructure such as the onsite substation and inverters. Enhancement measures incorporated within the LEEP (See Document Ref: R010). Alignment with Glint and Glare Assessment recommendations for mitigation (Document Ref: R014).	Limited Temporary Harm (40 years)	R010, R011 and R014.
Heritage and Archaeology	Undertook a Desk Based Assessment of Heritage Assets and Archaeological records followed by a geophysical survey prior to submission to identify any unknown archaeology on Site.	Limited, Indirect and Reversible Harm (40 years)	R009
Biodiversity	Suitable avoidance measures applied for both habitats and species identified. Enhancement measures incorporated within the LEEP (See Document Ref: R010). Biodiversity Net Gain of at least 94.8% for habitats and 32% for hedgrows	Enhancement	R010 and R011
Use of Agricultural Land	82% of land at the Site is some of the poorest quality land available in the area (i.e. Sub grade 3b and 4). Land will be retained in agricultural use through sheep grazing. Temporary use and fully reversible. Benefits demonstrated to soil health due to change in management of the land.	Enhancement	R012
Farm Diversification	The site would support the rural economy by providing farm diversification for the landowner.	Benefit	R002
Amenity	Noise: location of noise generating equipment has been moved as far practicable from sensitive receptors. Glint and Glare: choice of technology, site topography, new vegetative screen planting and positive management of existing planting to improve screening	Noise: No Harm Glint and Glare: Limited Temporary Harm	R007 R014

Flood Risk	No additional mitigation needed.	No harm	R008
Traffic and Access	Construction traffic routing to avoid restricted roads and smaller settlements, safe access design. Site management and implementation of CTMP to manage construction traffic.	Limited Temporary Harm	R005 and R006

Table 4: Green Belt 'Other Harm' Summary

It is concluded from the accompanying assessments that limited weight should be applied to "other harm" when undertaking the planning balance in accordance with paragraph 148 of the NPPF and local policies.

5.11.3 Very Special Circumstances

It is a key planning policy requirement that very special circumstances need to exist for inappropriate development to be approved in the Green Belt.

It is incorrect to suggest that every circumstance in itself has to be 'very special'. Some factors which are quite ordinary in themselves could, cumulatively, become very special circumstances[9]. Thus, the correct approach is to consider whether the very special circumstances relied upon by an applicant (and any other identified by the decision maker), when considered as a whole, are sufficient to outweigh any harm to the Green Belt and any other harm arising from the Proposed Development.

The following are considered to be benefits of the Proposed Development:

5.11.3.1 Increasing Renewable Energy Generation

The Proposed Development would supply up to 49.9MW to the National Grid, providing the equivalent annual electrical needs of approximately 15,200 family homes in Kirklees. The anticipated CO_2 displacement is around 23,300 tonnes per annum, which represents an emission saving equivalent of a reduction in c.7,500 cars on the road every year.

As detailed in Section 4.2, Kirklees is at a time of climate emergency and there is an urgent requirement for renewable energy infrastructure, particularly when considered in the context of the June 2019 ambitious target to reduce greenhouse gas emissions to net zero by 2050 in accordance with the Climate Change Act 2008.

While there is no requirement for an applicant to demonstrate the need for renewable energy in planning policy, national energy policy makes clear that renewable and low carbon energy is vital to our economic prosperity and social well-being and that it is important to ensure that the UK:

- Transitions to a low carbon economy and reduces greenhouse gas emissions to address the predominant challenge of our time, climate change;
- supports an increased supply from renewables;
- continues to have secure, diverse and resilient supplies of electricity as the UK transitions to low carbon energy sources and to replace closing electricity generating capacity;
- increases electricity capacity within the system to stay ahead of growing demand at all times whilst seeking to reduce demand wherever possible; and

[9] R. (on the application of Basildon DC) v First Secretary of State [2004] EWHC 2759

- delivers new low carbon and renewable energy infrastructure as soon as possible - the need is urgent.

When located in the Green Belt, paragraph 151 is clear in stating that "*Such very special circumstances may include the wider environmental benefits associated with increased production of energy from renewable sources"*.

The NPS EN-1 and NPPF states that renewable energy and associated infrastructure should be supported in the planning system, as part of working towards a radical reduction of greenhouse gases to tackle climate change. Paragraph 155 encourages local panning authorities to maximise the potential for renewable energy and to approve such applications where their impacts are acceptable.

This is afforded significant weight in the planning balance.

5.11.3.2 Climate Emergency

In May 2019 a national climate emergency was declared by the UK Parliament. MPs called on Government to make changes that included the setting of a radical and ambitious new target of reaching net zero emissions before 2050.

On a local level, in 2019 Kirklees Council declared a climate emergency and is awaiting publication os a programme and action plan to make Kirklees carbon neutral by 2038 which will help deliver the national target to reach net-zero carbon by 2030.

The Proposed Development would make a significant and valuable contribution to achieving emission targets on a national and local level.

This is afforded substantial weight in the planning balance.

5.11.3.3 Energy Security

The Proposed Development supplies clean renewable energy to the National Grid, comprising secure, distributed and diversified energy generation which accords with the Government's policy on energy security as identified within NPS EN-1 which explains the need for energy security allied with a reduction in carbon emissions.

This is afforded substantial weight in the planning balance.

5.11.3.4 Best Available Technology

The Proposed Development comprises the latest best available technology that delivers greater levels of solar efficiency than equipment that was being used elsewhere only very recently. This will increase the productivity of the panels and make best use of the land available.

Overall this maximises renewable energy production from the Site whilst providing security of supply in accordance with Government Policy, reducing the reliance on fossil fuel generation and the associated adverse environmental and climate effects.

This is afforded significant weight in the planning balance.

5.11.3.5 Good Design

In addition to using best available technology, through undertaking an iterative design process, as outlined in the Design and Access Statement (see Document Ref: R004), the design of the Proposed Development has been a key consideration in the layout of the site to minimise harm and provide significant benefits to the development as a whole.

This is afforded moderate weight in the planning balance.

5.11.3.6 Temporary and Reversible Impacts

The Application is proposed for a lifetime of 40 operational years. After the 40-year period the generating station would be decommissioned. All electricity generating equipment and built structures associated with the Proposed Development would be removed from the Site and it would continue in agricultural use. It is therefore considered that the Proposed Development is considered a temporary development. This also aligns with paragraph 13 of the Planning Practice Guidance which states that solar farms are normally temporary structures and planning conditions can be used to ensure that the installations are removed when no longer in use and the land is restored to its previous use[10].

Construction traffic associated with the Proposed Development will be limited to the construction period of 26 weeks and will not have a material effect on the safety or operation of the local highway network.

This is afforded substantial weight in the planning balance.

5.11.3.7 Biodiversity Net Gain

The Proposed Development proposes a significant number of biodiversity benefits within the accompanying LEEP (see Document Ref: R010).

The LVIA and accompanying LEEP set out how the Proposed Development would:

- Significantly enhance the overall biodiversity value of the Site;
- Protect and enhance the existing characteristics and features of value of the Site including the field structure, mature trees and hedgerows;
- Create a strong structural planting framework and protect, restore and maintain the existing vegetation network, which would also provide enhanced screening of close- and middle-distance views of the Proposed Development;
- Create greater opportunities for protected species' and species of conservation concern;
- Enhance the Green Infrastructure (GI) connectivity within the Site and wider landscape, contributing positively to aspirations set out within the Thurrock Green Infrastructure Plan;

[10] Paragraph: 013 Reference ID: 5-013-20150327, published 27 March 2015

- Protect and enhance recreational amenity from PRoW; and
- Secure the long-term future management of the Site for the duration of the development.

This significant enhancement of the biodiversity of the Site is demonstrated by the Net Biodiversity Gain Statement Accompanying the Preliminary Ecological Appraisal (Document Ref. R011), which concludes that there will be a net gain of 94.8% for habitats and 32% for hedgerows through the implementation of the Proposed Development.

This is afforded substantial weight in the planning balance.

5.11.3.8 Soil Regeneration

Aims and objectives for safeguarding and, where possible, improving soil health are set out in the Government's 'Safeguarding our soils: A strategy for England'[11]4. The Soil Strategy for England, which builds on Defra's 'Soil Action Plan for England (2004-2006), sets out an ambitious vision to protect and improve soil to meet an increased global demand for food and to help combat the adverse effects of climate change.

As demonstrated within the ALC report (see Document Ref: R012), the greatest benefits in terms of increase in soil organic matter (SOM), and hence soil organic carbon (SOC), can be realised through land use change from intensive arable to grasslands. Likewise, SOM and SOC are increased when cultivation of the land for crops (tillage) is stopped and the land is uncultivated (zero tillage). Global evidence suggests that zero tillage results in more total soil carbon storage when applied for 12 years or more. Therefore, there is evidence that conversion of land from arable to grassland which is uncultivated over the long-term (>12 years), such as that under solar farm arrays, increases SOC and SOM.

This is afforded moderate weight in the planning balance.

5.11.3.9 Farm Diversification

Renewable energy is an important form of farm diversification, recognised by the National Farmers Union (NFU) as an important step towards making British agriculture carbon neutral within two decades. As farming is responsible for around a tenth of UK greenhouse gas emissions, supporting renewable energy farm diversification projects will be a vital step to reaching net zero.

This is afforded moderate weight in the planning balance.

[11] 4 Department for Environment, Food and Rural Affairs (2009). Safeguarding our soils: A strategy for England

6 Conclusion

For the reasons outlined in this Planning Statement, it is considered that the Proposed Development is in accordance with the relevant planning policies and guidance at both the national and local levels.

The Proposed Development would supply 49.9MW of clean renewable electricity for distribution to the National Grid, providing the equivalent annual electrical needs of approximately 15,200 family homes. The anticipated CO_2 displacement is around 23,300 tonnes per annum, which represents an emission saving equivalent of a reduction in 7,500 cars on the road every year.

The Proposed Development has been designed to a high standard and has sensitively responded to the local landscape, cultural heritage assets and in response to feedback from the local community. It will provide significant biodiversity enhancements (92% net gain in habitat units, and 32% net gain in hedgerow units), allow for soil regeneration, it does not increase flood risk, will appropriately protect residential amenity, has safe highway accesses and will improve green infrastructure corridors and connectivity benefitting both wildlife and the recreational amenity experience of PRoW users.

The nature of the development requires it to be located as close as possible to the point of connection which is determined by the District Network Operator and grid availability. The Proposed Development represents an important farm diversification project, with indirect socio-economic benefits, at a time of significant change and concern within the UK farming industry. No significant adverse effects have been identified through the thorough site investigation and public consultation undertaken.

The protection for Greenbelt Land which is established in NPPF and local plan policies as detailed earlier in this report, is attributed great importance as required by Section 13, in particular Paragraph 137 of the NPPF. The development does not constitute urban sprawl, and land is kept permanently open, maintaining and returning to full agricultural use after decommissioning so as not to remove its permanence.

The very special circumstances required by Paragraph 147 of the NPPF are the current presence and further future threat of climate change which has just recently been so publicly discussed and endorsed at the global level following publication of the IPCC6 report. At a local level Kirklees planning policies specifically identify local impacts of climate change and the Council has committed in both corporate and planning policies to address this by making Kirklees Carbon Neutral by 2038. Solar development is identified as a renewable energy that offers opportunities to Kirklees also in terms of farm diversification, jobs and indirect economic benefits.

This site has been thoroughly investigated and there are no significant adverse effects identified by the suitably qualified team working on the project. In fact, significant gains have been identified in a number of areas, not least ecologically which would see the Proposed Development deliver a significant 94.8% overall biodiversity net gain, and 32% biodiversity net gain for hedges. These considerations, and the contribution the scheme would offer to the national target for renewable energy generation alongside the locational restrictions presented by the technology and land availability, mean that very special circumstances have clearly been demonstrated in this report and Paragraph 151 of the NPPF is satisfied.

Overall, there is an urgent requirement for the Proposed Development; this report and the supporting documents have demonstrated that it is entirely suitable for the chosen Site and its surroundings; it accords with national and local planning policy; all relevant material planning considerations have been fully addressed; and it will deliver significant environmental benefits - not least renewable energy which addresses climate change challenges at every administrative level.

Based on the Proposed Development and assessments undertaken, the Site is deemed suitable for a development of this nature in terms of planning policy and planning guidance. The scheme is

sustainable development, the delivery of which is the overarching goal of current planning policy and as such planning permission should be granted. This proposal will deliver development that is in line with paragraphs 11 and 47 of the NPPF (2021) and Section 38(6) of the Planning and Compulsory Purchase Act 2004, when undertaking the planning balance, and considering conformity with the NPPF as a whole, the Proposed Development will accord with the local development plan and that there are no material considerations which indicate a decision should be made otherwise.

Appendix 1 Copy of Kirklees Screening Opinion