Lime Down
Solar Park

Design Approach Document

September 2025
Revision 1

Planning Inspectorate Reference: EN010168
Document Reference: APP/7.3
APFP Regulation 5(2)(q)

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Executive Summary

E-1. This Design Approach Document (DAD) has been prepared by Lime Down Solar Park Limited (the Applicant) in relation to an application for a Development Consent Order (DCO) for Lime Down Solar Park (the Scheme).

E-2. The DAD demonstrates how good design has been embedded in the design of the Scheme and how the design of the Scheme has evolved up to the point of the DCO Application within a clear design framework provided by a Design Vision and Design Principles. The DAD has been prepared in accordance with the Planning Inspectorate's guidance titled 'Nationally Significant Infrastructure Projects: Advice on Good Design' and sets out the design decisions taken at each step of the Scheme's development, and the rationale for these decisions, as well as the mechanisms by which good design will be secured post consent.

E-3. The design of the Scheme has evolved in response to the outcomes of environmental assessment, stakeholder engagement, consultation feedback at non-statutory, statutory and targeted consultation, and technical studies, within a framework provided by a Design Vision and Design Principles which have sought to minimise adverse impacts, enhance opportunities, and balance flexibility and certainty in the DCO application. Design changes have included the removal or reduction of Solar PV Panels in sensitive areas to mitigate impacts on landscape, heritage, ecology, and flood risk including the removal of Solar PV panels near the Cotswolds National Landscape, the Fosse Way, and Bradfield Manor (a Grade I listed building). These changes demonstrate how the Design Principles, which include application of the mitigation hierarchy and a landscape-led approach, have led to good design outcomes.

1.1.1 The DAD outlines how good design will be secured post-consent through a suite of management plans and requirements in the **Draft Development Consent Order (DCO) [EN010168/APP/3.1]**, including the **Design Principles and Parameters [EN010168/APP/7.4]**, the **Outline Landscape and Ecological Management Plan (LEMP) [EN010168/APP/7.18]**, and the **Outline Construction Environmental Management Plan (CEMP)[EN010168/APP/7.12]**. A Community Liaison Group will be established to ensure ongoing dialogue with local stakeholders during construction and operation, supporting transparency and responsiveness in design implementation.

E-4. The DAD demonstrates how the Scheme has met national policy requirements in the Overarching National Policy Statement for Energy (EN-1) which requires that through good design, energy projects should produce sustainable infrastructure sensitive to place, including impacts on heritage,

efficient in the use of natural resources, including land-use, and energy used in their construction and operation, matched by an appearance that demonstrates good aesthetic as far as possible.

E-5. In summary, this DAD sets out how the Scheme achieves a balance between delivering urgently needed renewable energy and minimising environmental and community impacts, in line with national policy and good design guidance.

1 Introduction

1.1 Overview of the Scheme

1.1.1 Lime Down Solar Park (the Scheme) comprises the construction, operation and maintenance, and decommissioning of a solar photovoltaic (PV) electricity generating station together with associated development. The Scheme is a Nationally Significant Infrastructure Project (NSIP) pursuant to sub-sections 14(1)(a) and 15(1) and (2) of the Planning Act 2008 (PA 2008), being an onshore generating station in England with a capacity exceeding 50 megawatts (MW). As such, the decision whether to grant development consent will be made by the Secretary of State for Energy Security and Net Zero.

1.1.2 The Scheme comprises a solar PV electricity generating station of over 50 megawatts (MW) and associated development comprising Battery Energy Storage System (BESS) Area, substations, grid connection infrastructure and other infrastructure integral to the construction, operation and maintenance, and decommissioning phases.

1.1.3 The solar PV electricity generating station and BESS Area are located within five land parcels referred to as Lime Down A, B, C, D and E (Solar PV Sites). Grid connection infrastructure is located within the Cable Route Corridor, which is where the Grid Connection Cables would be located to connect the Solar PV Sites to the National Grid at the Existing National Grid Melksham Substation, as well as connecting each of the Solar PV Sites.

1.1.4 The Scheme also includes Highways Improvements Areas where sections of the highway network will contain localised improvements to support the movement of construction vehicles along construction vehicle routes.

1.1.5 A full description of the Scheme is included in **ES Volume 1, Chapter 3: The Scheme [EN010168/APP/6.1]** and shown in **ES Volume 2, Figure 3-1: Indicative Site Layout Plan [EN010168/APP/6.2].** The Scheme location and the Order Limits are shown in **ES Volume 2, Figure 1-2: The Order Limits [EN010168/APP/6.2]**.

1.2 Purpose of this document

1.2.1 Lime Down Solar Park Limited (the Applicant) has prepared this DAD to support the application for a DCO for the Scheme. The Applicant is part of Island Green Power Limited (IGP), who is a leading developer of renewable energy projects, established in 2013.

1.2.2 This DAD sets out how good design has been embedded into the Scheme from the outset of the project, and how it will continue to be achieved

through to detailed design, to ensure that the Scheme achieves well-designed project outcomes and mitigates adverse effects.

1.2.3 This DAD has been prepared in accordance with the Planning Inspectorate's guidance titled 'Nationally Significant Infrastructure Projects: Advice on Good Design' (NSIPs: Advice on Good Design) which was last updated on 16 April 2025 (Ref 1). By doing so, the DAD clearly sets out the design decisions taken at each step of the Scheme's development, and the rationale for these decisions, as well as the mechanisms by which good design will be secured post consent.

1.2.4 This DAD also sets out how consultation and engagement has influenced the iteration and refinement of the layout and design of the Scheme.

1.2.5 This DAD has been structured to align with NSIPs: Advice on Good Design:

- **Section 2: Policy context for Good Design –** introduces the context of what is considered to be good design with reference to national and local planning policy and relevant design guidance;
- **Section 3: Assemble –** provides the project brief, including its purpose, timeline and design team, and sets out the Design Principles and vision of the project;
- **Section 4: Research –** sets out the design evolution of the Scheme from non-statutory consultation up to the Preliminary Environmental Information Report (PEIR), showing how it has mitigated impacts and delivers a positive outcome;
- **Section 5: Co-ordinate –** explains how the design has been iterated and refined further, taking account of consultation and engagement to ensure that Design Principles are being met;
- **Section 6: Securing Good Design –** sets out how good design is secured and will be delivered, including ongoing design advice and community engagement;
- **Section 7: Conclusion** – summarises the contents of this DAD and sets out how the Scheme has and will deliver good design.
- **Section 8:** References; and
- **Annex A:** Consideration of the Planning Inspectorate's guidance 'Nationally Significant Infrastructure Projects: Advice on Good Design'.

1.2.6 **Table 1-1** below sets out an explanation of the key design terminology referred to in this DAD and throughout the DCO application.

Table 1-1 Key design terminology

Design terminology	Definition
Design vision	The overarching strategic goal of the Scheme which defines the key considerations and elements it will deliver.
Design principle	These are principles that have influenced design based decisions. As set out in **Section 3.7** of this DAD, IGP has developed a set of company-wide design principles (global design principles), that have informed the design of the Scheme. The Scheme has also developed its own set of Design Principles based on national and local policies and guidance, and the local context. These Design Principles are set out in **Section 3.7** of this DAD.
Design parameters	Design parameters are the minimum and maximum parameters that the Scheme has been assessed against in the Environmental Statement. The parameters are set out in detail in **Design Principles and Parameters [EN010168/APP/7.4]**. These minimum and maximum parameters include practical design measures such as the size, material used, and the layout of Scheme infrastructure, such as Solar PV Panels.

2 Policy context for Good Design

2.1 What is good design?

2.1.1 As set out in the Planning Inspectorate's guidance NSIPs: Advice on Good Design, the principles of good design have been around since the Roman times and go beyond purely aesthetics. The guidance highlights that the Governments in England and Wales recognise that good design is a process that needs to include the social, environmental and economic aspects of a development, including its construction, operation and management, and its relationships to its surroundings. Ultimately, good design is the result of a wide range of factors and considerations that seek to deliver functionality, durability and aesthetic appeal.

2.1.2 According to NSIPs: Advice on Good Design:

"Achieving good design requires a holistic approach to deliver high quality, sustainable infrastructure that responds to place and takes account of often complex environments.

Achieving high quality, good design outcomes requires an effective, intentional, transparent, deliverable process to be planned, followed and secured. Success in good design comes from a combination of securing both good process and good outcomes.

Given the scale and impact of NSIP developments, achieving well-designed project outcomes addressing sustainability and climate change is essential."

2.1.3 The policy requirement for NSIPs to achieve good design is set out in the energy National Policy Statements (NPS) prepared by the government. The relevant NPSs are Overarching National Policy Statement for Energy (EN-1) (NPS EN-1) (Ref 2), the National Policy Statement for Renewable Energy Infrastructure (EN-3) (NPS EN-3) (Ref 3) and the National Policy Statement for Electricity Networks Infrastructure (EN-5) (NPS EN-5) (Ref 4). The government published an updated set of draft NPS's in April 2025 for consultation following a review of the existing energy NPSs, however they do not yet have effect. The published draft NPSs were reviewed for the purposes of this DAD, however no relevant updates were identified in relation to design matters.

2.1.4 The following sections set out the key national and local policies that relate to good design, followed by other guidance and advice that has been considered.

2.1.5 This DAD provides the design narrative in response to these policy requirements. A full appraisal of how the Scheme has complied with the

relevant policy tests set out in national and local policy is provided in the **Planning Statement [EN010168/APP/7.2].**

2.2 Policy Context

2.2.1 The key policy documents relevant to the Scheme that set out the requirement for good design in NSIPs are as follows:

Overarching National Policy Statement for Energy (EN-1)

2.2.2 Paragraph 4.7.1 of NPS EN-1 states that "*the visual appearance of a building, structure, or piece of infrastructure, and how it relates to the landscape it sits within, is sometimes considered to be the most important factor in good design. But high quality and inclusive design goes far beyond aesthetic considerations. The functionality of an object – be it a building or other type of infrastructure – including fitness for purpose and sustainability, is equally important*".

2.2.3 Paragraph 4.7.2 of NPS EN-1 sets out that "*applying good design to energy projects should produce sustainable infrastructure sensitive to place, including impacts on heritage, efficient in the use of natural resources, including land-use, and energy used in their construction and operation, matched by an appearance that demonstrates good aesthetic as far as possible. It is acknowledged, however that the nature of energy infrastructure development will often limit the extent to which it can contribute to the enhancement of the quality of the area".*

2.2.4 Paragraph 4.7.3 of NPS EN-1 explains that "*good design is also a means by which many policy objectives in the NPSs can be met, for example the impact sections show how good design, in terms of siting and use of appropriate technologies, can help mitigate adverse impacts such as noise. Projects should look to use modern methods of construction and sustainable design practices such as use of sustainable timber and low carbon concrete. Where possible, projects should include the reuse of material*." Further, paragraph 4.7.4 of NPS EN-1 states that "*given the benefits of good design in mitigating the adverse impacts of a project, applicants should consider how good design can be applied to a project during the early stages of the project lifecycle."*

2.2.5 Paragraphs 4.7.5 to 4.7.9 of NPS EN-1 set out how the Applicant could consider good design including:

- appointment of a design champion to maximise the value provided by the infrastructure;
- establishment of Design Principles at the outset of the Scheme to guide design evolution;

- consideration of the siting of infrastructure relative to existing landscape character, land form and vegetation;
- sensitive use of materials in any associated development; and
- the incorporation of nature inclusive design.

2.2.6 Footnote 122 of NPS EN-1 explains that design principles:

"should take into account any national guidance on infrastructure design, this could include for example the Design Principles for National Infrastructure published by the National Infrastructure Commission, the National Design Guide and National Model Design Code, as well as any local design policies and standards."

2.2.7 In relation to the Secretary of States decision making, paragraph 4.7.10 of NPS EN-1 states that "*the Secretary of State needs to be satisfied that energy infrastructure developments are sustainable and, having regard to regulatory and other constraints, are as attractive, durable and adaptable (including taking account of natural hazards such as flooding) as they can be."*

2.2.8 Paragraph 4.7.11 of NPS EN-1 states that "*the Secretary of State should be satisfied that the applicant has considered both functionality (including fitness for purpose and sustainability) and aesthetics (including its contribution to the quality of the area in which it would be located, any potential amenity benefits, and visual impacts on the landscape or seascape) as far as possible*."

2.2.9 Paragraph 4.7.12 of NPS EN-1 confirms that the Secretary of State *"should take into account the ultimate purpose of the infrastructure and bear in mind the operational, safety and security requirements which the design has to satisfy"* when considering applications.

National Policy Statement for Renewable Energy Infrastructure (EN-3)

2.2.10 Paragraph 2.1.8 of NPS EN-3 explains that the development of new renewable energy infrastructure "*must show how any likely significant negative effects would be avoided, reduced, mitigated or compensated for, following the mitigation hierarchy."*

2.2.11 Paragraph 2.5.2 of NPS EN-3 states that "*proposals for renewable energy infrastructure should demonstrate good design, particularly in respect of landscape and visual amenity, opportunities for co-existence/co-location with other marine and terrestrial uses, and in the design of the project to mitigate impacts such as noise and effects on ecology and heritage*."

2.2.12 Paragraph 2.10.59 to 2.10.64 of NPS EN-3 set out the requirements for achieving good design in relation to site layout, design and appearance, with paragraph 2.10.60 setting out that "*applicants will consider several factors when considering the design and layout of sites, including proximity to available grid capacity to accommodate the scale of generation, orientation, topography, previous land–use, and ability to mitigate environmental impacts and flood risk.*"

2.2.13 Paragraph 2.10.61 of NPS EN-3 further adds that "*For a solar farm to generate electricity efficiently the panel array spacing should seek to maximise the potential power output of the site. The type, spacing and aspect of panel arrays will depend on the physical characteristics of the site such as site elevation.*"

2.2.14 Paragraph 2.10.98 of NPS EN-3 explains how good design can minimise landscape and visual effects, and states that "*Applicants should follow the criteria for good design set out in Section 4.7 of EN-1 when developing projects and will be expected to direct considerable effort towards minimising the landscape and visual impact of solar PV arrays especially within nationally designated landscapes.*"

2.2.15 National Policy Statement for electricity networks infrastructure (EN-5) Paragraph 2.4.1 of NPS EN-5 states that regard should be given to the desirability of good design in the determination of DCO applications, and Paragraph 2.4.2 signposts applicants to the criteria for good design set out in Section 4.7 of NPS EN-1.

2.2.16 Paragraph 2.4.3 of NPS EN-5 states that, *"... the Secretary of State should bear in mind that electricity networks infrastructure must in the first instance be safe and secure, and that the functional design constraints of safety and security may limit an applicant's ability to influence the aesthetic appearance of that infrastructure."*

2.2.17 Paragraph 2.4.4 of NPS EN-5 sets out that, *"While the above principles should govern the design of an electricity networks infrastructure application to the fullest possible extent – including in its avoidance and/or mitigation of potential adverse impacts...– the functional performance of the infrastructure in respect of security of supply and public and occupational safety must not thereby be threatened."*

Wiltshire Core Strategy, adopted 2015

2.2.18 The majority of the Scheme lies within the administrative area of Wiltshire Council. The Wiltshire Core Strategy (adopted January 2015) (Ref 5) provides the overarching planning policy framework for Wiltshire up to 2026. Core Policy 57: Ensuring high quality design and place shaping, of the Wiltshire Core Strategy sets out the Council's policy on good design, and design requirements to ensure that Wiltshire's features and

characteristics are protected and enhanced. Paragraph 6.129 of the Wiltshire Core Strategy states that "*Good design helps to provide a sense of place, creates or reinforces local distinctiveness, and promotes community cohesiveness and social wellbeing. Wiltshire has a rich built heritage and its vibrant towns and villages are set within large expanses of open countryside which is valued for its tranquillity and beauty as well as its environmental value. Enhancing the character of Wiltshire's countryside and settlements is of the utmost importance and, in order to do this, development must be informed by a thorough understanding of the locality and the development site."*

2.2.19 Core Policy 57 of the Wiltshire Core Strategy seeks to ensure that development *"creates a strong sense of place through drawing on the local context and being complementary to the locality*". It says development should do this through:

- Enhancing local distinctiveness, relating positively to landscape setting and ensuring views into and out of the site are retained and enhanced;
- Retaining existing important landscape and natural features;
- Responding positively to existing townscape and landscape features;
- Being sympathetic to historic buildings and landscapes;
- Making efficient use of land;
- Having regard to impact on amenity;
- Incorporating measures to reduce crime or antisocial behaviour;
- Ensuring new roads or rights of way are legible, safe and accessible;
- Planning for diversity and adaptability, considering how space will be used immediately and in the long term;
- The use of high standards of building materials, finishes and landscaping; and
- Ensuring design statements and masterplans, setting out the development concept and design principles are submitted.

2.2.20 As there are some small highway improvement areas located within South Gloucestershire, South Gloucestershire Council is also a host authority for the Scheme. The South Gloucestershire Core Strategy 2006-2027 (Ref 6) sets out a vision for future development in South Gloucestershire to 2027. Policy CS1 seeks the "*highest possible standards of design and site planning"* and required proposals to demonstrate that siting, form, scale, height, massing detailing, colour and materials are informed by, respect

and enhance the character, distinctiveness and amenity of the site and its context, safeguarding existing features of landscape, nature conservation, heritage and amenity value of public rights of way.

Made Neighbourhood Plans

2.2.21 The Scheme is located within the following Made Neighbourhood Plan areas, therefore the relevant design policies have been considered:

- Sherston Neighbourhood Plan 2006 to 2026 (Made May 2019) (Ref 7);
- Hullavington Neighbourhood Development Plan 2016 to 2026 (Made September 2019) (Ref 8);
- Malmesbury Neighbourhood Plan 2016 to 2026 (Made February 2015) (Ref 9);
- Chippenham Without Neighbourhood Plan 2022-2036 (Made October 2023) (Ref 19);
- Corsham Neighbourhood Plan 2016-2026 (Made November 2019) (Ref 20); and
- Joint Melksham Neighbourhood Plan 2 2020-2038 (Made August 2025) (Ref 21).

2.3 Guidance and advice

2.3.1 Alongside policy requirements, the following guidance and advice has been considered in the Scheme's approach to good design:

- NSIPs: Advice on Good Design (Planning Inspectorate, April 2025) (Ref 1);
- National Infrastructure Strategy (HM Treasury, November 2020) (Ref 10);
- Design Principles for National Infrastructure (National Infrastructure Commission Design Group) (2020) (Ref 11);
- National Design Guide (Ministry of Housing, Communities and Local Government, January 2021) (Ref 12);
- National Model Design Code (Ministry of Housing, Communities and Local Government, June 2021) (Ref 13);
- Solar Energy UK: 11 Commitments on Solar Farms (2022) (Ref 14);
- Wiltshire Council Design Guide (Wiltshire Council, 2024) (Ref 15); and

- South Gloucestershire Design Checklist (South Gloucestershire Council, 2007) (Ref 16).

3 Assemble

3.1 Project Brief

3.1.1 The project brief and purpose of the Scheme is to sensitively design and deliver:

- the construction, operation and maintenance, and decommissioning of a solar PV electricity generating station with a grid connection capacity of approximately 500MW; and
- 'associated development' including Battery Energy Storage System (BESS), grid connection infrastructure and other infrastructure. In doing so, the design must take into account the local and surrounding context and apply the mitigation hierarchy to provide renewable and low carbon energy into the National Grid at Melksham, for which there is an urgent need.

3.1.2 Key considerations in identifying the project brief included ensuring the Scheme is sensitive to the landscape, implements the mitigation hierarchy from inception, and ensures that impacts are minimised as far as possible through design, to achieve a design that's functional and fit for purpose.

3.2 Site Selection

3.2.1 A site selection process was undertaken to consider potential alternative sites, as set out in **Volume 1, Chapter 4: Alternatives and Design Evolution of the ES [EN010168/APP/6.1]** and summarised in the **Planning Statement [EN010168/APP/7.2]**. **ES Volume 3, Appendix 4-1: Site Selection Assessment Report [EN010168/APP/6.3]** sets out the six-stage approach used to identify the proposed location for the Scheme and evaluates the proposed location for the Scheme against other potential areas for solar development in order to establish whether the Scheme is in a suitable location. It identifies potential development areas for the Scheme and presents how each of those areas perform against a range of planning, environmental and operational constraints and opportunities.

3.2.2 The six-stage approach is as follows:

- Stage 1: Identification of an area of search near the available grid connection point;
- Stage 2: Exclusion of various planning, environmental and spatial constraints, in accordance with policy considerations (such as a preference not to site on best and most versatile agricultural land), to identify the most unconstrained land;

- Stage 3: Application of considerations around site size and land assembly, use of previously developed land and topography to identify potential development areas on the remaining land;
- Stage 4: Evaluation of the identified potential development areas against assessment indicators such as ecology and biodiversity, land use, landscape and visual, flood risk etc;
- Stage 5: Widening the search to consider further potential development areas on parcels of Grade 3 agricultural land, and land within flood zones 2 and 3; and
- Stage 6: Widening the search to consider further potential development areas on parcels of land with a higher gradient (5% or less).

3.2.3 **ES Volume 3, Appendix 4-1: Site Selection Assessment Report [EN010168/APP/6.3]** concludes that there are no locations within the search area that are more suitable and available than the proposed location for the Scheme, based on the criteria identified.

3.3 Design Champion and Team

3.3.1 The Applicant is promoting several NSIPs and has therefore appointed a Board Level Design Champion to ensure good design is embedded across their portfolio of projects. The Design Champion advocates a good practice design approach, and shares lessons learned across its portfolio of projects. These approaches, principles and lessons learnt have been taken into consideration in the design development of the Scheme.

3.3.2 In addition to the Applicants' Board Level Design Champion, the Applicant also appointed a project level Design Champion to lead the design process and ensure a multi-disciplinary approach. The appointed Design Champion for the Scheme was the landscape architect, who has prior experience in leading the design of other NSIP scale solar projects.

3.3.3 The project level Design Champion was responsible for leading the development of the indicative masterplans presented at the Preliminary Environmental Information Report (PEIR) stage and subsequent iterations following feedback received during statutory consultation, resulting in the Indicative Masterplans submitted with this DCO. These plans outline the site layout and proposed mitigation for the Scheme, which has been developed in close coordination with the Applicant's design team.

3.3.4 The Applicant has dedicated significant resource both internally and through appointment of an experienced team of consultants to develop a high-quality design for the Scheme. The Scheme's design team is set out in **Table 3-1**.

Table 3-1 Scheme's design team

Role	Organisation	Responsibilities	Skills
Design Lead	Island Green Power and Lanpro	Oversight of Scheme design to ensure that it upholds project design principles and delivers good design.	Experience in design and delivery of NSIP scale solar farms. The Lanpro landscape design lead is a chartered member of the Landscape Institute.
Environmental disciplines	Lanpro - Landscape and visual, Arboriculture, Cultural Heritage, Socio-economics, Tourism and Recreation and Human Health Clarkson & Woods – Ecology and Biodiversity Arthian – Hydrology, Flood Risk and Drainage Transport Planning Associates – Transport and Access Bureau Veritas – Climate Change Arcadis – Air Quality Reading Architectural Consultants – Soils and Agriculture	Collaborative approach to design decisions through multidisciplinary working to ensure the design is developed to consider the existing context of the area, and identify the likely significant effects of the Scheme, provide mitigation measures and design enhancement measures to ensure good design that aligns with the Scheme Design Principles.	All Environmental Impact Assessment (EIA) topic leads are recognised as competent experts as set out in **ES Volume 3, Appendix 1-1 Statement of Competence [EN010168/APP/6.3].**

Role	Organisation	Responsibilities	Skills
	Geosyntec – Ground Conditions AECOM – EIA Clover Planning – Minerals Pager Power – Glint and Glare and Electromagnetic		
Planning	AECOM	Advise the project team on design related national and local policy requirements.	Chartered Town Planners experienced in NSIP scale solar farms.
Engineering	Island Green Power	Technical engineering design.	HV engineers, solar engineers with experience in NSIP scale solar farms, BESS engineers.
Communication	Counter Context	Overseeing consultation, collating feedback, and embedding feedback as part of the iterative design process.	Experience in NSIP scale solar farms.

3.3.5 In addition to the inputs of the design team, the outcomes of consultation and technical engagement, as well as the conclusions of environmental assessment have influenced decision making, resulting in a comprehensive and well informed design. Comments provided at non-statutory, statutory and targeted consultation and the Applicant's response, including whether the comment resulted in a change to the design of the Scheme, is provided in the **Consultation Report [EN010168/APP/5.1]** and the **Consultation Report Appendices [EN010168/APP/5.2]**.

3.4 Programme

3.4.1 **Table 3-2** below shows the programme relating to the evolution of the design of the Scheme, and the proposed timeline for the remainder of the Scheme.

Table 3-2 Programme for the Scheme

Date	Activity
2023	
Q4	Preparation for non-statutory consultation.
2024	
Q1	Non-statutory community consultation, including consultation events, local visits and meetings with stakeholders.
Q2	Development of Design Principles, progression of environmental surveys and review of consultation feedback.
Q3	Scoping Opinion published and preparation of the Preliminary Environmental Information Report.
Q4	Internal design review workshops and preparation of updated Scheme layout for statutory consultation.
2025	
Q1	Statutory consultation, including consultation events, local visits and meetings with stakeholders, and further progression of environmental surveys
Q2	Review of consultation feedback, preparation of updated Scheme layout, along with preparation of ES informed by ongoing engagement with stakeholders. Targeted consultation on minor Scheme design changes.
Q3	Ongoing engagement with stakeholders and preparation of final DCO submission layout, and all final documents for DCO submission, followed by DCO submission in September.
Q4	Pre-examination phase
Q1 – Q4 2026	Examination, recommendation and decision phases
2027	Detailed design and procurement, preparation of final detailed masterplan, and construction
2029	Operation
2089	Decommissioning

3.5 Baseline Information

Scheme Context

3.5.1 The Order Limits comprise a total area of 1,237 hectares (ha) of land located largely within the administrative area of Wiltshire Council with small areas of existing highway within the administrative area of South Gloucestershire Council.

3.5.2 The Scheme comprises five land parcels, Lime Down A, B, C, D and E (collectively referred to as the 'Solar PV Sites'), the Cable Route Corridor, the Highway Improvement Areas and works to the existing National Grid Melksham Substation. The Solar PV Sites will comprise land for solar PV and battery storage, associated infrastructure, and landscaping, heritage, surface water and biodiversity mitigation areas.

3.5.3 The Solar PV Sites comprise a total area of approximately 749.3 ha. The area and National Grid Reference (NGR) for each individual Solar PV Site is as follows:

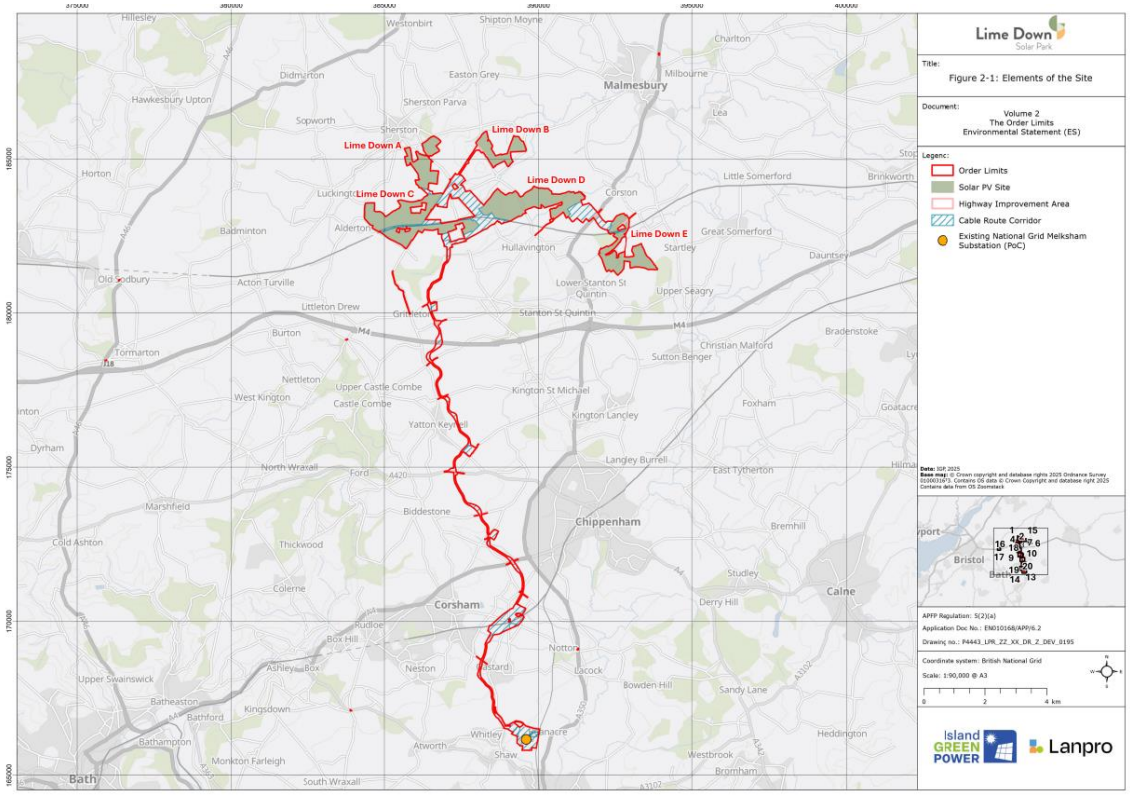
- Lime Down A comprises an area of approximately 94.3 ha and is centred on NGR ST 86281 84700;
- Lime Down B comprises an area of approximately 70 ha and is centred on NGR ST 88571 85010;
- Lime Down C comprises an area of approximately 241 ha and is centred on NGR ST 86198 83092;
- Lime Down D comprises an area of approximately 212.5 ha and is centred on NGR ST 89705 83780; and
- Lime Down E comprises an area of approximately 131.3 ha and is centred on NGR ST 92698 81906.

3.5.4 The landscape within and surrounding the Solar PV Sites comprises predominantly agricultural fields and rural villages and hamlets, including Sherston (approximately 300 m north of Lime Down A), Luckington (approximately 830 m west of Lime Down C), Corston (approximately 480 m east of Lime Down D), Hullavington (approximately 700 m south of Lime Down D), and Rodbourne (approximately 150 m southeast of Lime Down E). The town of Malmesbury is located approximately 3 km northeast of Lime Down B.

3.5.5 The Cable Route Corridor runs for approximately 22 km from Lime Down D to the Existing National Grid Melksham Substation, as well as connecting each of the Solar PV Sites. It covers a total area of approximately 463.2 ha and is centred on NGR ST 88369 73688.

3.5.6 **Figure 3-1 (ES Volume 2, Figure 2-1: Elements of the Site [EN010168/APP/6.2]** shows the location of the Scheme in relation to the surrounding area.

Figure 3-1 Location of the Scheme



Topography and irradiance

3.5.7 The Order Limits are set within a rural landscape, characterised by gently undulating agricultural land with arable fields, hedgerows, scattered woodlands, and woodland blocks. Its landform comprises gently undulating topography, generally rising westwards, with a series of small valleys and flatter land between these. In the surrounding area, there are several individual farm holdings, rural dwellings, and small commercial business properties.

3.5.8 Land within the Solar PV Sites is considered to be suitable for solar generation, in order to maximise energy generation and avoid visual intrusion.

3.5.9 Due to the nature of this landform alongside the extensive existing vegetation in the form of hedgerows, trees, and woodland, the Solar PV Sites are relatively well contained from one another, with views limited to localised short distance rather than wide ranging or panoramic on the whole.

3.5.10 The topography within each Solar PV area is as follows:

- Lime Down A - The land broadly slopes up from east to west from 105 m to 115 m elevation. The topography to the north of the area

falls steeply towards the River Avon (Sherston Branch) before rising towards the village of Sherston;

- Lime Down B - The western part of the Solar PV Site is relatively flat at a height of approximately 100 m, with the eastern part sloping away to the east to a height of approximately 85 m;
- Lime Down C - The land is relatively flat at a height of approximately 120 m AOD though it predominantly slopes down to the east. Gauze Brook, a tributary of the River Avon runs east to west through the area giving rise to gently sloping land in its vicinity;
- Lime Down D - The land slopes from an elevation of 100 m to the west to 75 m to the east and Gauze Brook, a tributary of the River Avon, runs west to east through the area giving rise to gently sloping land on either side of the Brook; and
- Lime Down E - The topography in Area E is more complex than areas A-D which gives rise to smaller scale field pattern and a more intimate landscape character.

3.5.11 In terms of irradiance, Wiltshire benefits from one of the highest irradiance levels in the UK and is therefore a favourable location for solar development.

Landscape

3.5.12 The Scheme covers an area of 1,237 ha of land within a rural landscape setting within Wiltshire which comprises predominantly agricultural fields and small rural villages and hamlets The Cotswolds National Landscape (CNL) is located to the west of the Scheme and the North Wessex Downs National Landscape to the east.

3.5.13 The majority of the Scheme is not located within any national or local landscape designations. The northern boundary of Lime Down A and western boundary of Lime Down B and Lime Down C are located within 10m of the CNL, although are located in the setting of the CNL, and minor highway improvement works within the Highway Improvement Areas are proposed to be undertaken within the CNL (refer to **ES Volume 2, Figure 8-6: Landscape Receptors [EN010168/APP/6.2]**). The CNL Board, in a position statement on 'development in the setting of the Cotswolds AONB' (2016) (Ref 17) define the setting of the CNL to be "*the area within which development and land management proposals, by virtue of their nature, size, scale, siting materials or design can be considered to have an impact, positive or negative, on the landscape, scenic beauty and special qualities*" of the CNL.

3.5.14 Lime Down A, C and the western part of Lime Down B are situated within the Cotswolds National Character Area (NCA Profile: 107 Cotswolds (NE420). Lime Down D, E and the eastern part of Lime down B are situated within the Avon Vales National Character Area (NCA Profile: 117 – Avon Vales (NE522).

3.5.15 The following sets out the location and landscape character of each of the Solar PV areas. Refer to **ES Volume 2, Figure 2-3: Environmental and Planning Constraints [EN010168/APP/6.2]** for an illustration of the location of each Solar PV Area within the landscape.

Lime Down A

3.5.16 Lime Down A is situated on the eastern edge of the CNL and located approximately 240 m to the southeast of the small village of Sherston (see

3.5.17). The village is situated approximately 8 km west of Malmesbury. The area of Lime Down A is 94.3 ha and the area is entirely in agricultural use. The area consists of parcels of farmland either side of the road running between Sherston and the Fosse Way (a Roman Road) to the east and Commonwood Lane, a no through road to the west, as shown in **Figure 3-3.**

Figure 3-2 Village of Sherston north west of Lime Down A

Figure 3-3 Road between Sherston and the Fosse Way, and Commonwood Lane within Lime Down A

3.5.18 The nearest properties are located at Lordswood Farm, Ladyswood Farm and Southfields. The land is characterised by agricultural fields separated by hedgerows and scattered trees. To the south blocks of woodland surrounding Lordswood House provide separation between Lime Down A and C.

Lime Down B

3.5.19 Lime Down B consists of parcels of farmland located to the east of Fosse Way; located approximately 300 m to the north and west of the village of Norton, and approximately 180 m to the south of Foxley to the north, where there are some isolated residential properties. The area of Lime Down B is 70 ha and the area is entirely in agricultural use. The land is characterised by agricultural fields separated by hedgerows, with small irregular blocks of woodland in the wider area. There are some nearby residential properties, as shown in **Figure 3-4.**

Figure 3-4 Residential properties near Lime Down B

3.5.20 Malmesbury is the nearest major settlement and is located approximately 3.4 km to the north-east of Lime Down B. Sherston lies to the west and the hamlet of Easton Grey is sited approximately 1.3 km to the north.

3.5.21 The Fosse Way forms a distinctively straight boundary to the west of the area as shown in **Figure 3-5**. Including the Fosse Way, there are seven PRoW located in Lime Down B.

Figure 3-5 The Fosse Way

Lime Down C

3.5.22 The area of Lime Down C is 241 ha and the area is entirely in agricultural use. There are hedgerows and some woodland blocks scattered outside Lime Down C.

3.5.23 Lime Down C consists of parcels of land both to the east and west of Fosse Way, which lies to the east of the village of Alderton. The Fosse Way is lined by mature hedgerow and tree in this area as shown in **Figure 3-6**.

Figure 3-6 Existing vegetation along the Fosse Way screening views into Lime Down C

3.5.24 Alderton village's church spire within the Conservation area, which can be seen in **Figure 3-7**, is visible from within Lime Down C.

Figure 3-7 Alderton Village Church Spire to the west of Lime Down C

3.5.25 The boundary of the CNL follows the southwestern parcels of land as shown on **ES Volume 2, Figure 2-3 Environmental and Planning Constraints [EN010168/APP/6.2].** To the south of Lime Down C, the Great Western railway line runs through the area.

Figure 3-8 Great Western Railway running east to west, to the south of Lime Down C

Lime Down D

3.5.26 Lime Down D lies immediately north of the Great Western railway line, 640m north of Hullavington and Hullavington Airfield, and south of Bradfield Wood. Hullavington Airfield has been and is continuing to be developed by Dyson for research and development, which includes electrical infrastructure to power the site. Buckley Barracks, a British Army site, located adjacent to Hullavington Airfield lies approximately 1 km south of Lime Down D.

3.5.27 The Lime Down D area extends along the Gauze Brook towards the village of Corston to the east. The area is situated to the east and west of the Hullavington to Norton Road and the western parcels adjoins the Great Western railway line.

3.5.28 There are relatively few residential properties in the vicinity with isolated farms such as Bradfield Manor Farm, West Park Farm and Gorsey Leaze Farm.

3.5.29 The Solar PV area of Lime Down D is 212.5 ha and the area is entirely in agricultural use. Large fields are bounded by hedgerows and mature trees, as shown in **Figure 3-9** with little woodland except Bradfield Wood (Ancient and Semi-Natural Woodland) to the north of the area. There are also several PRoW located within Lime Down D. Within Lime Down D,

footpaths generally cut through fields, while bridleways form treed corridors on the boundaries of fields.

Figure 3-9 Site photographs from Lime Down D area

Lime Down E

3.5.30 Lime Down E is located 500 m to the to the south of Corston and to the south of the village of Rodbourne which is located on higher ground. A white, water tower on the hill forms a prominent feature of the landscape which is visible in many views from the wider landscape, as shown on **Figure 3-10**. The area extends southwards beyond the Great Western railway line and forms an intrusive feature of the landscape as it runs on an embankment in this location. The area extends towards Stanton St Quintin to the south and is partially enclosed by Seagry Wood to the east and Bincombe Wood to the west.

Figure 3-10 White water tower in the distance to the north of Lime Down E

3.5.31 There are no roads within the area itself although it is criss-crossed by bridleways and footpaths. A number of farms are located in the vicinity, as shown on **Figure 3-11** such as Hangar Farm (approx. 160m southwest of E18), Haresfield Farm (approx. 180 m southeast of E27 and Avil's Farm (approximately 270 m south of E32). Buckley Barracks is located approximately 780 m west of Lime Down E.

Figure 3-11 Farms near Lime Down E

3.5.32 Gabriel's Well, another tributary to the River Avon, is a stream which runs west-east through the Area and forms the base of a distinct valley. Rodbourne sits at the top of the valley slope and Rodbourne Bottom, as its name suggests, sits at the bottom of the valley.

3.5.33 The area of Lime Down E is 131.3 ha and the area is also entirely in agricultural use. However, the more intimate pattern of sloping fields enclosed by hedgerows and trees provides quite a different character to the landscape, as shown in **Figure 3-12.**

Figure 3-12 Sloping fields enclosed by hedgerow and trees within Lime Down E

3.5.34 Lime Down E contains a significant number of Public Rights of Way (PRoW) comprising four bridleways and nine footpaths which are described in detail in the Visual Baseline.

Local Character

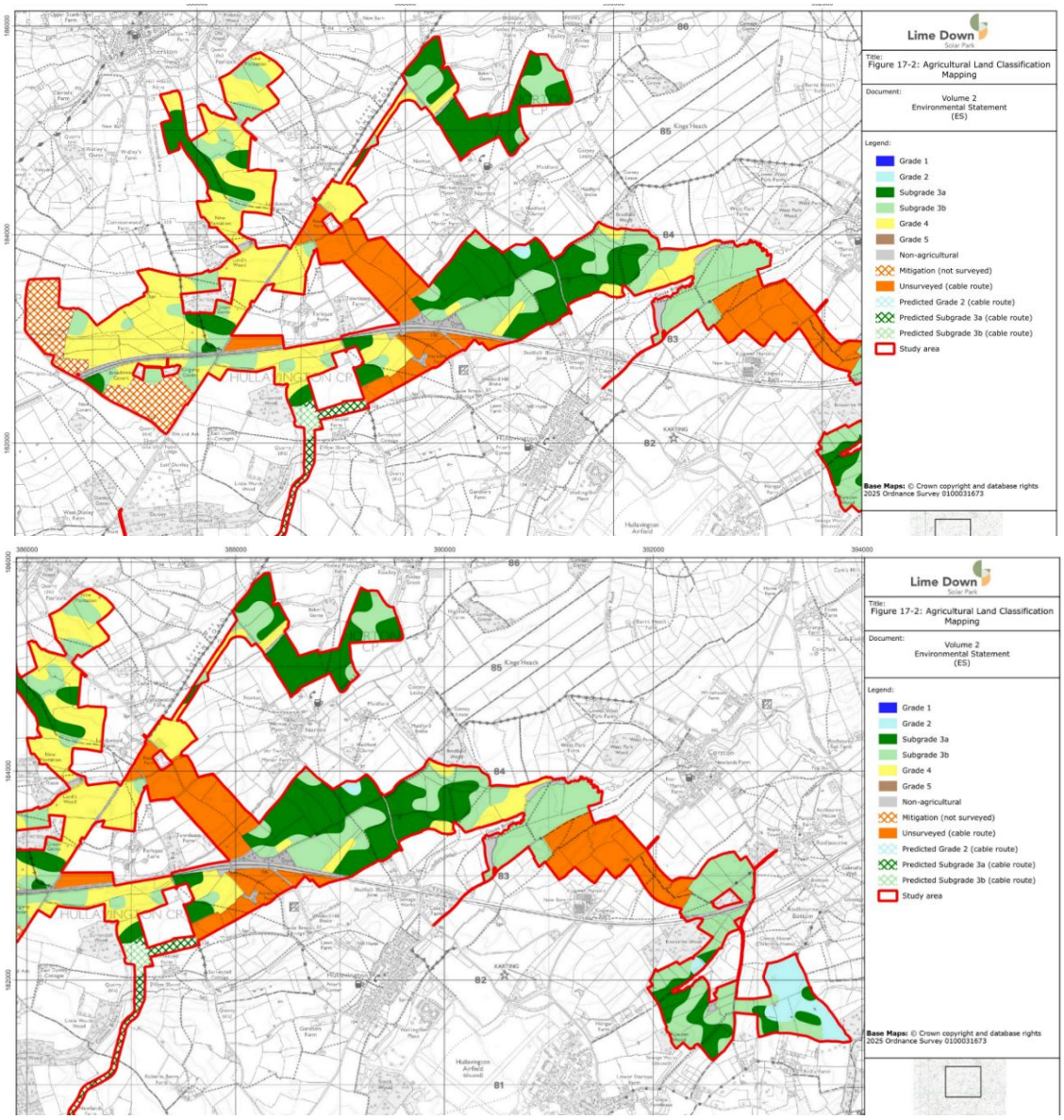
3.5.35 The Cotswolds is famous for its villages, dry stone walls and imposing wool churches, all of which are made from the local Cotswold stone. The presence of iron oxide in the stone gives it a distinctive warm, yellowish tint. The stone is also used in the wider landscape outside of the Cotswold National Landscape, in the buildings within the villages of Norton, Hullavington, Corston and Rodbourne. Although stone walls are found within these villages and some farmsteads within the Scheme's Study Area, assessed in **ES Volume 1, Chapter 8: Landscape and Visual [EN010168/APP/6.1],** they are rarely seen within the landscape to divide fields.

Land Use

3.5.36 Across all Solar PV Sites, the land is primarily in arable use with some areas of grassland in Lime Down B, Lime Down C and Lime Down E. Agricultural Land Classification (ALC) surveys have been undertaken, which conclude that the majority of the Solar PV Sites (67%) comprise land within Subgrades 3b and 4 and therefore is not best and most

versatile (BMV) agricultural land. Approximately 240.1 ha of the Solar PV Sites is classified as BMV quality, mostly in Subgrade 3a (the lowest grade of BMV land) with a small proportion of Grade 2. There is no Grade 1 land (being the highest grade) within the Solar PV Sites. More information can be found in **ES Volume 3, Appendix 17-1 Agricultural Land Classification and Soil Resource Survey Report [EN010168/APP/6.3]**. **Figure 3-13** illustrates this.

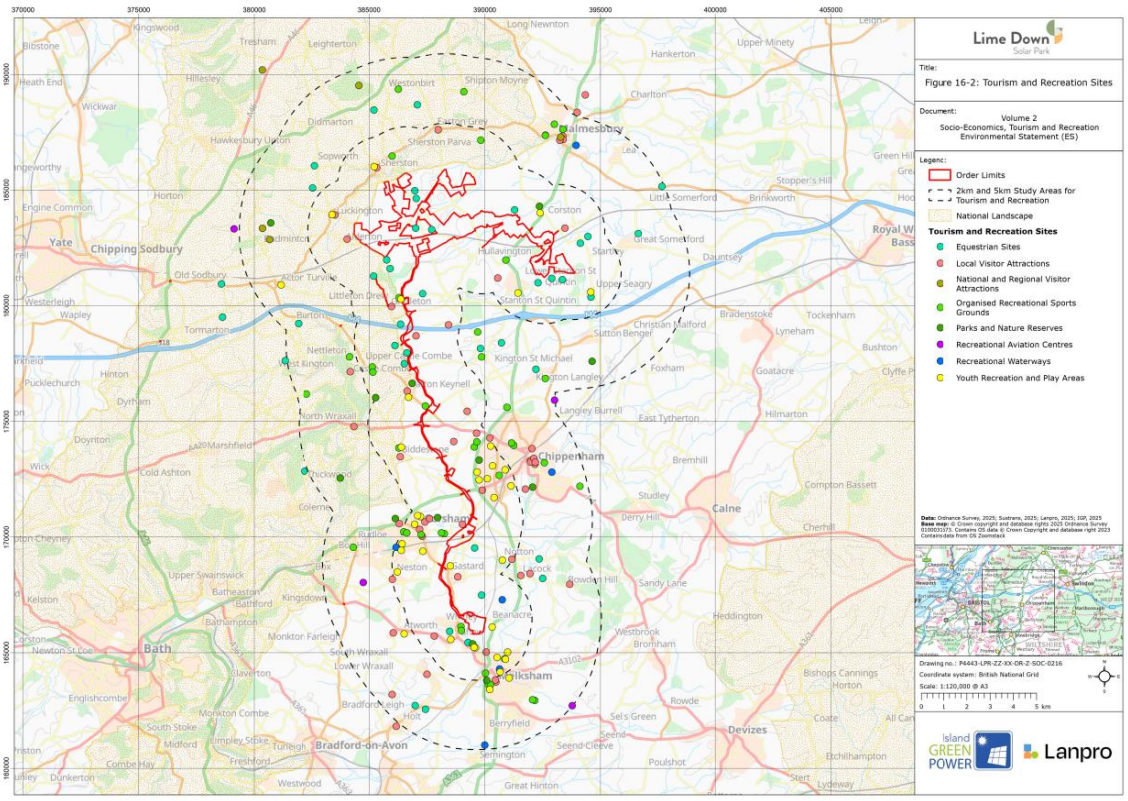
Figure 3-13 ALC across the Solar PV Sites



3.5.37 As seen in **Figure 3-14** (taken from **ES Volume 2, Figure 16-3 Tourism and Recreation Receptors [EN010168/APP/6.2]**),there are a number of recreational areas in proximity to the Order Limits including nature reserves, historic buildings, local sports grounds, golf clubs, equestrian centres, Castle Combe Race Circuit, and annual events such as the

Badminton Horse Trials and festival events at the Charlton Park Estate. There is a network of PRoW and long-distance recreational routes within or in proximity to the Order Limits. The River Avon located approximately 240 m north of Lime Down A is navigable for small unpowered craft, and the Kennet and Avon Canal is north of Lime Down A and is popular for powered craft and canal boats.

Figure 3-14 Recreational facilities within and in proximity to the Order Limits



3.5.38 There are 2 existing solar developments located in proximity to the Scheme, the nearest being a solar development to the northwest of Hullavington by Wessex Solar Energy called Hullavington 7 MW Solar Farm, as shown in **Figure 3-15.** This solar development is screened from view by hedgerows.

Figure 3-15 Existing solar development to the northwest of Hullavington

Public Rights of Way

3.5.39 PRoW and highways within and surrounding the Order Limits are shown on **ES Volume 2, Figure 2-4 PRoW and Highways [EN010168/APP/6.2].**

3.5.40 There are 19 footpaths, 7 bridleways and 3 Byways Open to All Traffic (BOAT) distributed reasonably evenly within the Solar PV Sites, with the densest concentration being in and around Lime Down D and E.

3.5.41 There are 19 footpaths, 2 bridleways, and 1 BOAT running through the Cable Route Corridor.

Ecology and Biodiversity

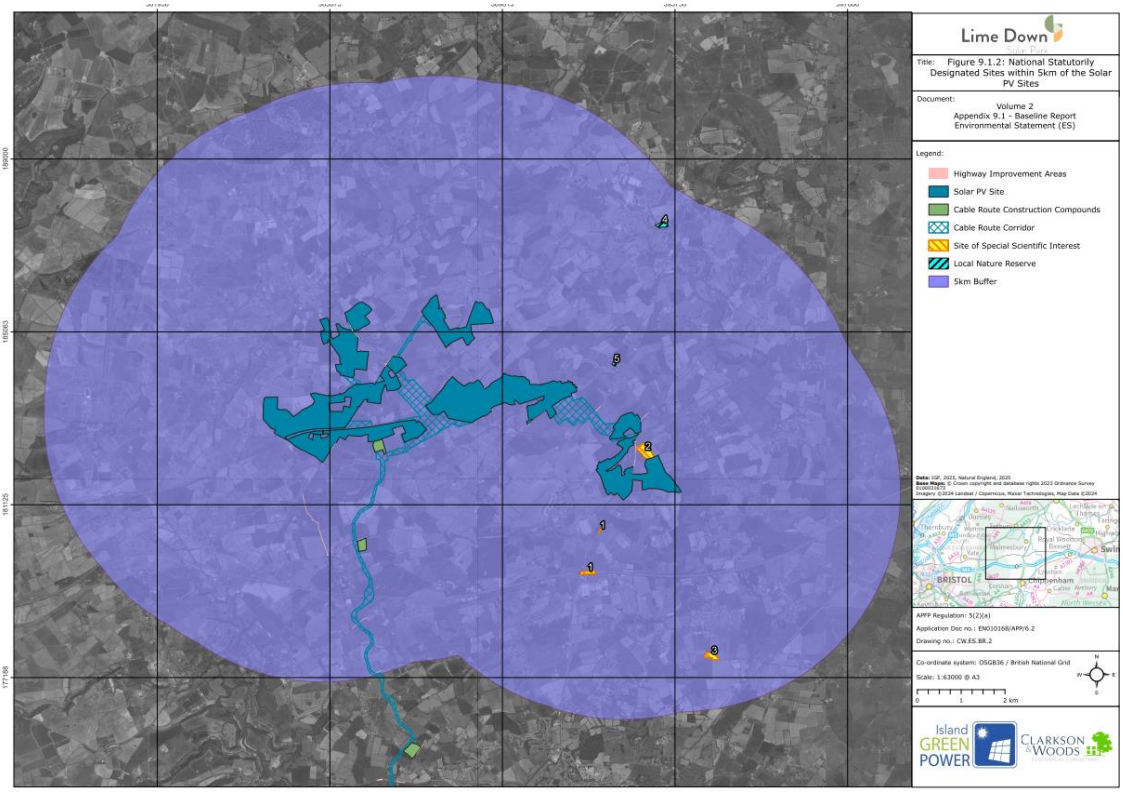
3.5.42 The Order Limits comprise a variety of habitats, including arable fields, grasslands, woodlands, hedgerows, ponds, and watercourses. These support a range of protected and notable species, such as badgers, bats, dormice, otters, water voles, brown hares, hedgehogs, reptiles, amphibians, breeding and overwintering birds, terrestrial invertebrates, white-clawed crayfish, and various fish species.

3.5.43 There are no statutory internationally designated ecological sites located within or 10 km beyond the Solar PV Sites. There are four statutory

internationally designated ecological sites located within 30 km of the Order Limits. These include the Bath and Bradford on Avon Bats Special Area of Conservation (SAC), Severn Estuary Special Protection Area (SPA) and Ramsar, and Salisbury Plain SPA (refer to **ES Volume 2, Figure 9-1-1: International Statutorily Designated Sites [EN010168/APP/6.2]**).

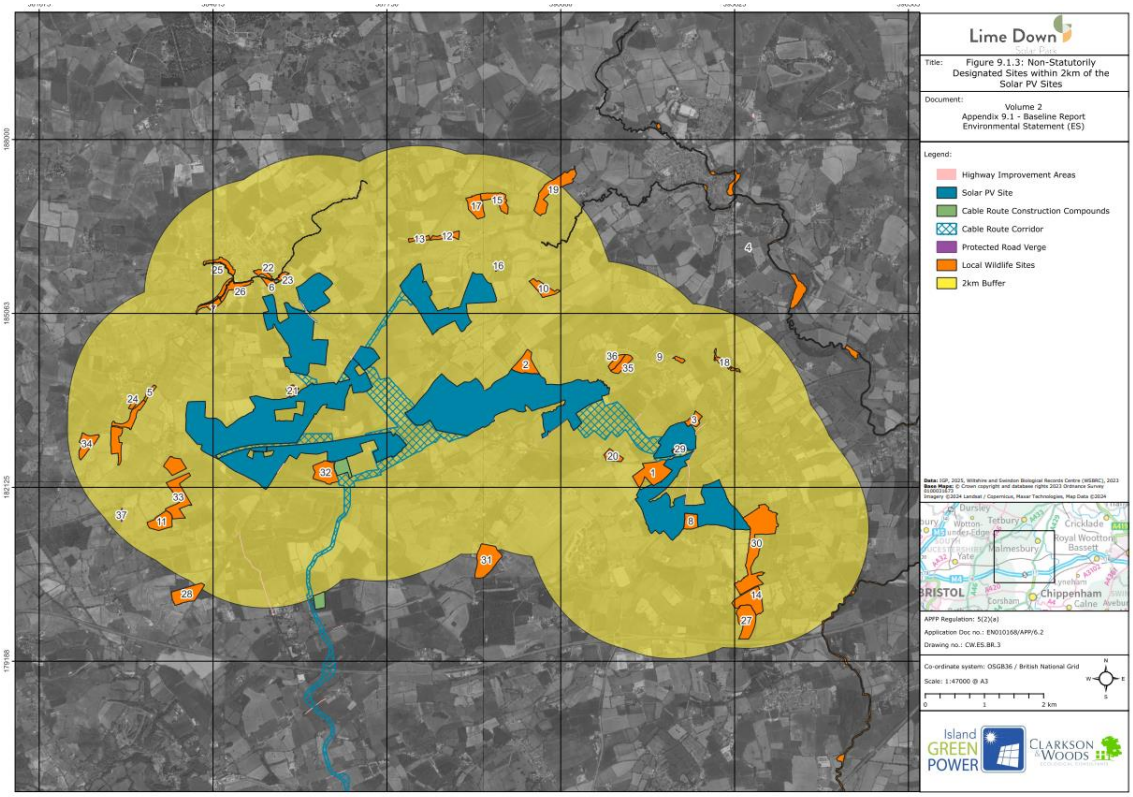
3.5.44 As shown on **Figure 3-16** there are four statutory nationally designated ecological sites located outside of, but within 5 km of the Order Limits including Harries Ground, Rodbourne Site of Special Scientific Interest (SSSI); Corston Quarry and Pond Local Nature Reserve (LNR); Sutton Lane Meadows SSSI; and Conygre Mead LNR.

Figure 3-16 National statutory designated ecological sites



3.5.45 There are 37 non-statutory locally designated sites located outside of, but within 2 km of the Order Limits which include 36 Local Wildlife Sites (LWS) and one Protected Road Verge, as shown on **Figure 3-17** (taken from **ES Volume 2, Figure 9-1-3 Non-Statutorily Designated Sites within 2km of the Scheme Boundary - Lime Down A – E [EN010168/APP/6.2]**).

Figure 3-17 Non-statutory locally designated ecological sites



Hydrology, Flood Risk and Drainage

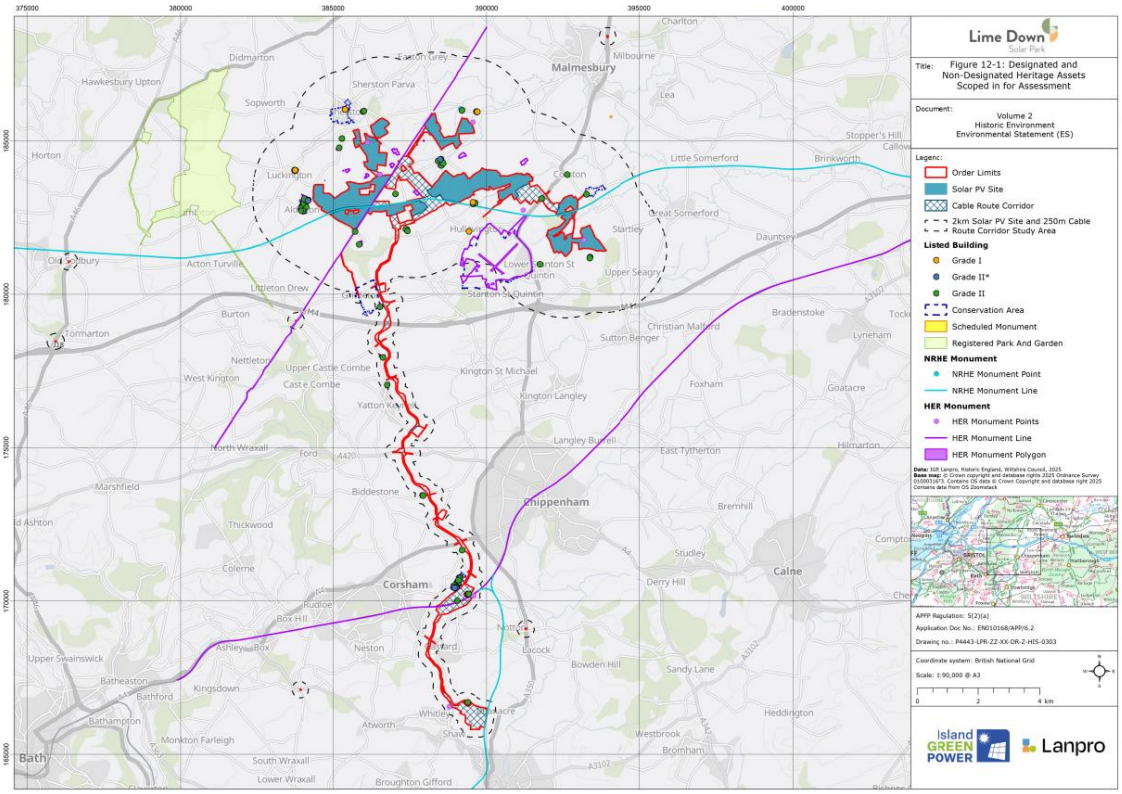
3.5.46 The Order Limits are situated within the Severn River Basin Management Plan area, specifically within the Avon Bristol and North Somerset Streams Management Catchment. The majority of the Solar PV Sites and Cable Route Corridor are located within Flood Zone 1 with a low risk of fluvial flooding. There are limited areas of Flood Zone 2 and Flood Zone 3 with a medium and high risk of fluvial flooding, respectively, within Lime Down B, C, D and E and the Cable Route Corridor. The Solar PV Sites and Cable Route Corridor are generally at a very low risk to surface water flooding with limited areas of low to high risk along watercourses and drains. **ES Volume 2, Figures 11-1 to 11-8 [EN010168/APP/6.2**], which comprise the Flood Risks Maps for Lime Down A to E and the Cable Route Corridor, illustrate the above.

3.5.47 There are several watercourses and drains located within or in proximity to the Order Limits. Watercourses within the Solar PV Sites include Gauze Brook running through the eastern extent of Lime Down D and Gabriel's Well River running through the centre of Lime Down E, as well as various unnamed drains. The River Avon is located approximately 240 m north of Lime Down A. The Cable Route Corridor is intersected by various tributaries associated with the River Avon.

Cultural Heritage

3.5.48 There are no World Heritage Sites, Registered Battlefields, or Protected Wrecks within 2 km of the Solar PV Sites and 250 m of the Cable Route Corridor. No designated heritage assets are located within the Solar PV Sites, however, a total of 261 Listed Buildings, five Schedule Monuments, and eight Conservation Areas, are located within 2 km. In addition, there are 134 Listed Buildings, four Scheduled Monuments, eight Conservation Areas, and two Registered Parks and Gardens located within 250 m of the Cable Route Search Corridor. These are shown on **Figure 3-18** (taken from **ES Volume 2, Figure 12-1 Designated and Non Designated Heritage Assets Scoped in for Assessment [EN010168/APP/6.2]**).

Figure 3-18 Designated and non-designated heritage assets



3.5.49 Forty-seven records of non-designated archaeological assets are present within the Solar PV Sites according to the Wiltshire Historic Environment Records, as well as an additional 53 areas of potential archaeological interest and 37 Historic Landscape Character units. There are 588 records of non-designated archaeological assets are present within the Cable Route Corridor. These are shown on **Figure 3-19** (taken from **ES Volume 2, Figure 12-3 Historic Landscape Character [EN010168/APP/6.2]** and (taken from **ES Volume 2, Figure 12-2 Archaeological Assets [EN010168/APP/6.2]**).

Figure 3-19 Historic landscape character

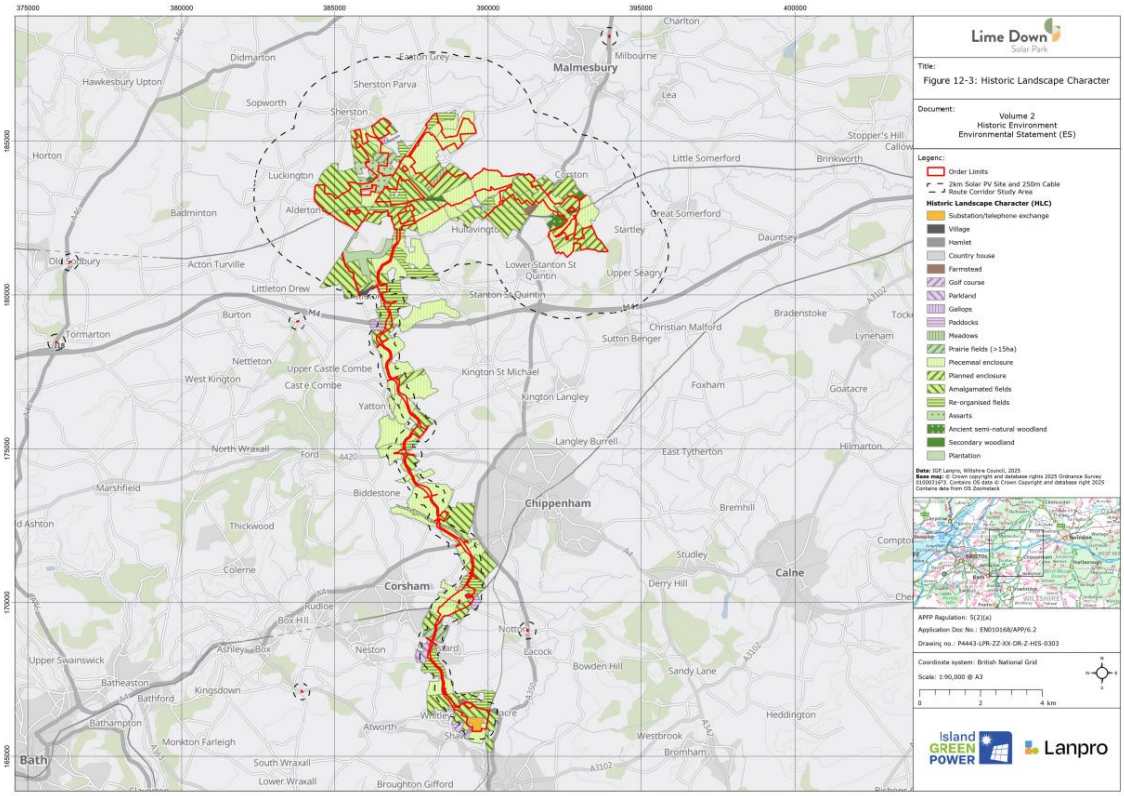
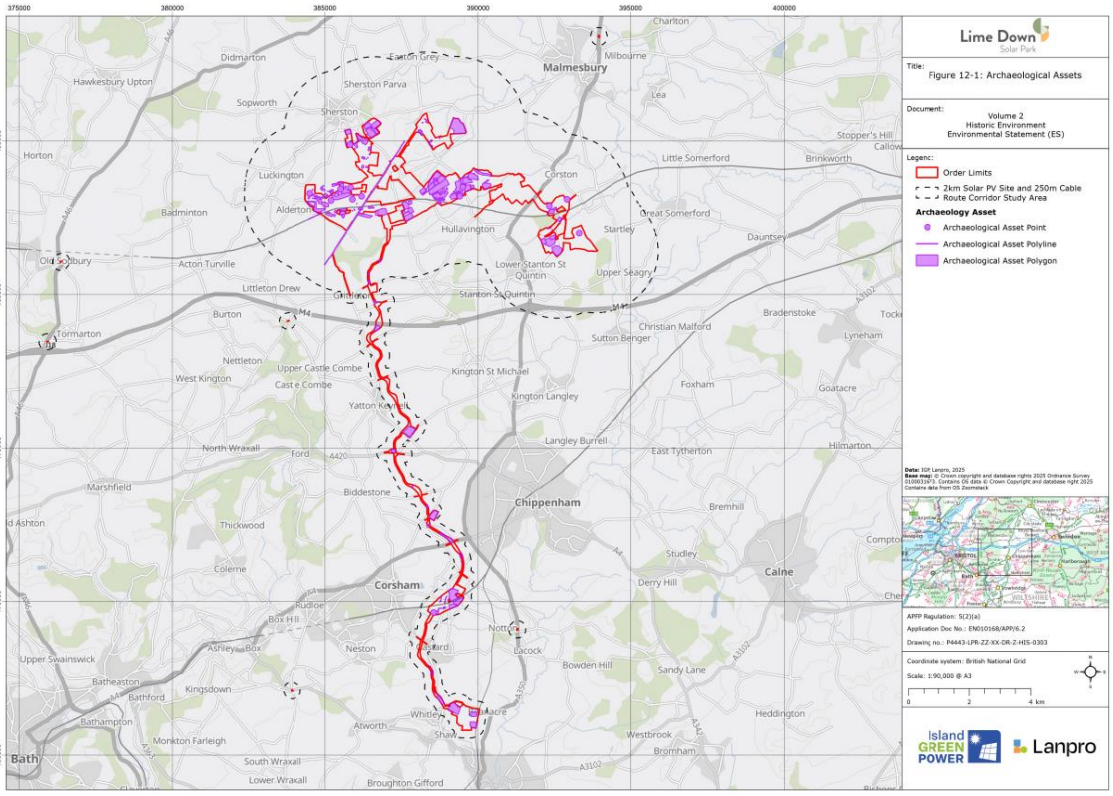


Figure 3-20 Archaeological assets



Constraints and Opportunities

3.5.50 Following an initial analysis of the local context of the Scheme and its surroundings, as set out above, the following constraints and opportunities were identified, to help guide the design development and ensure the Scheme avoids impacts wherever possible from the outset.

Table 3-3 Constraints and Opportunities

Receptor	Constraints	Opportunities
Topography and Irradiance	Change in topography in some areas of land which should be considered in the site layout.	The topography within the Solar PV Sites is considered suitable for solar generation and provides an opportunity to maximise energy generation and avoid visual intrusion. There are high irradiance levels in Wiltshire.
Landscape and Visual	Proximity of the Scheme to the Cotswolds National Landscape to the west of the Order Limits. Proximity of the Scheme to the Fosse Way. Proximity of the Scheme to rural villages within and surrounding the Cotswolds.	Availability of large field parcels with existing hedgerows and mature trees along the boundaries to provide screening, outside of the Cotswolds National Landscape. Many opportunities to improve planting and vegetation. Limited residential properties and villages intercepting field parcels.
Local Character	Proximity of the Scheme to local villages within and surrounding the Cotswolds National Landscape.	Limited dry stone walls and villages within field parcels, reduces impacts.
Land Use	Parts of the land within the Order Limits are BMV Grade 2 and 3a. Proximity of nearby recreational areas and events.	The majority of the land (67%) is non BMV land. Availability of large amounts of arable land that does not overlap with recreational areas and events.
Public Rights of Way	Potential effects to a number of PRoW within the Order Limits, including the Fosse Way.	Opportunities to improve and reinforce existing PRoWs through the provision of permissive paths.

Receptor	Constraints	Opportunities
Ecology	Proximity of Local Wildlife Sites to the Scheme.	Ability to avoid all international, national and local statutory and non-statutory ecological sites. Opportunities for ecological mitigation and enhancement measures within the Order Limits.
Hydrology, Flood Risk and Drainage	Potential effects to watercourses and drains as a result of the Scheme.	Ability to avoid the majority of areas of high flood risk, and opportunity to locate solar infrastructure in areas at low risk of flooding.
Cultural Heritage	Proximity of designated and non-designated heritage assets to the Scheme leading to potential effects on their setting.	Ability to avoid direct impacts on designated heritage assets. Opportunities to provide mitigation measures to reduce impacts on the setting of heritage assets.

3.6 Design Vision

3.6.1 Following an analysis of the local context and baseline information of the Scheme location, and taking account of the project brief, a Design Vision was developed for the Scheme.

3.6.2 The vision for the Scheme is to "***efficiently deliver low-carbon, renewable energy and make a substantial contribution to the Government's solar deployment target (of 45-47GW by 2030[1]) and legal obligations to deliver net zero and achieve energy security whilst being sensitive to, and exploring opportunities to enhance, the surrounding communities and land uses in Wiltshire".***

3.6.3 The main purpose of this vision was to ensure that the overall Scheme design is held together by a clear goal.

3.6.4 The Design Vision for the Scheme will be delivered by the Design Principles set out below.

[1] The solar deployment target as set out in the Government's Clean Power 2030 Action Plan (Ref 18)

3.7 Design Principles

Global design principles

3.7.1 Island Green Power (IGP) has prepared a series of company-wide 'global' design principles ('global design principles'). These global design principles aim to ensure that all IGP projects deliver direct benefits to communities, enhance biodiversity, control any adverse effects on the local environment throughout the lifecycle of the project, and help tackle climate change by harnessing and storing renewable energy.

3.7.2 IGP's global design principles are as follows:

Table 3-4 IGP's global design principles

Principle	Commentary
1 Decarbonisation & energy security	Designed to maximise their clean energy generation potential, Projects will contribute to energy security and help deliver the UK's 2050 net zero targets, providing secure, reliable, affordable and home-grown energy to the nation.
2 Environmentally led design	Our Projects are sensitively designed to minimise the potential impact to versatile and high quality land, always considering the surrounding landscape and protecting local heritage sites.
3 Biodiversity net gain and nature recovery	Designed to make a positive contribution to the local environment, our Projects create new habitats and include enhancements to deliver a measurable net gain for biodiversity throughout operation.
4 Design flexibility	Designed with input from the local community, our Projects are functional and fit for purpose, adaptable and able to respond to innovative new technologies, with built-in resilience to climate change.
5 Social value and community benefits	Our Projects provide additional benefits and opportunities, in consultation with the local community. We minimise disruption to Public Rights of Way during all phases, and enhance local walking routes and paths where possible.
6 Efficient infrastructure and ethical supply chain	Designed to maximise operational efficiency, our Projects ensure consistent energy output and minimal losses through advanced,

Principle	Commentary
	ethically sourced technologies and an optimised site layout.
7 Sustainability, durability and reversibility	Designed to deliver reliable sustainable energy, we ensure the installation of our Projects remain temporary, and can be fully reversed if necessary, with minimal impact to the environment.
8 Our commitment to mitigation	By adhering to the mitigation hierarchy, our Projects reduce potential environmental impacts and control any adverse effects throughout construction, operation, maintenance and decommissioning.

Scheme specific Design Principles

3.7.3 In addition to the global design principles, Scheme specific design principles (Design Principles) were adopted to guide the project in response to the requirements set out in NPS EN-1. The purpose of the Design Principles is to provide a framework for development of the design in the pre-application stage. Furthermore, the Design Principles have informed the parameters, as set out in **Design Principles and Parameters [EN010168/APP/7.4]**. The parameters contained within the **Design Principles and Parameters [EN010168/APP/7.4]** are secured in the **Draft DCO [EN010168/APP/3.1]** and apply to the detailed design of the Scheme, post consent.

3.7.4 The Design Principles were informed by national and local planning policy, the outcome of non-statutory and statutory consultation, the local context of the Scheme, environmental surveys and assessments and the key themes set out in the guidance documents listed in **Section 2.3** of this document.

3.7.5 The Design Principles for the Scheme are set out in **Table 3-5** below.

Table 3-5 Scheme specific Design Principles

No.	Scheme Specific Design Principle
1	The design of the Scheme will be ‘Landscape Led’ and give due weight to the intrinsic character and beauty of the surrounding countryside.
2	Adherence to the mitigation hierarchy to reduce impacts and control any adverse effects on the environment throughout the lifecycle of the Scheme from construction through to operation and maintenance and decommissioning.

No.	Scheme Specific Design Principle
3	The Scheme will deliver a minimum 10% net gain for biodiversity through strategic habitat creation and enhancement measures.
4	The Scheme design will retain a degree of flexibility to enable it to adapt over time, be functional and fit for purpose, and respond to innovative and new technologies as well as building resilience to climate change.
5	The Scheme will be carefully designed to minimise where practicable impacts on amenity from air quality, traffic and noise effects and safeguard the health and safety of local residents by securing suitable control measures during construction, operation and maintenance and decommissioning of the Scheme.
6	The Scheme will protect the water environment by adhering to good pollution control practice and be resilient from flooding both now and in the future and not increase the risk of flooding elsewhere.
7	The design of the Scheme will be sensitive to above and below ground heritage assets and their setting, by locating infrastructure at a suitable distance and through appropriate landscape screening.
8	The Scheme will be sensitive to existing land uses where practicable and maximise opportunities to strengthen green and blue infrastructure.
9	The Scheme will seek to minimise the effects of the development on Public Rights of Way by incorporating measures to maintain, and where practicable, explore opportunities to improve the local footpath network.

3.7.6 These Design Principles were consulted upon during the Scheme's statutory consultation and the responses to these are set out in the **Consultation Report Appendices [EN010168/APP/5.2].** While the design principles did not change as a result of the comments made, responses were considered during the design development process which is set out in **Section 4** and **5** of this DAD**.** The following sections of this DAD set out how the Design Principles have informed the design of the Scheme. **Section 6** of this DAD explains how the Applicant will secure good design which has been influenced by the Design Principles.

4 Research

4.1 Design Evolution

4.1.1 The layout of the Scheme has evolved iteratively since initial site selection, through environmental assessment, feedback received from non-statutory, statutory and targeted consultation, technical engagement with stakeholders and in accordance with the Design Vision and Design Principles.

4.1.2 This section explains how the design of the Scheme evolved from the brief set out in **Section 3.1**, up to the current Scheme design at DCO submission, and how design measures have been used to mitigate adverse effects. It also summarises the Scheme's positive design outcomes.

Design evolution up to non-statutory consultation (Spring 2023 to Spring 2024)

4.1.3 As part of the design evolution up to non-statutory consultation, the proposed Order Limits were identified, including the site boundary for solar infrastructure, options for location of the BESS and a cable corridor search area. The intention of the design at this stage was that the area would be further refined following surveys and the outcomes of environmental assessment and non-statutory and statutory consultation taking into account the Design Principles, and the mitigation hierarchy which sought to avoid and minimise potential impacts to the local area.

4.1.4 At this stage, work was still underway to determine the specific type of infrastructure and equipment to be used, and where it would be located. However, five Solar PV Areas were identified (Lime Down A – E), consisting of the following infrastructure:

- Ground mounted solar PV panels: positioned directly on the ground to efficiently convert sunlight into electricity, likely to consist of a mixture of tracker and fixed panels, with a maximum height of the panels (including their supports) to be 4.5 m;
- PV module mounting structures: robust structures securely holding the solar PV panels in place;
- Inverters: converting the direct current (DC) electricity generated by the panels into alternating current (AC). AC electricity is what powers homes and businesses;
- Transformers: to manage and alter the voltage of the electricity so it can be exported to the national grid;

- Switchgear: to manage the flow of electricity and direct it to where it is needed;
- Battery Energy Storage System (BESS): an on-site facility that would provide an important balancing service for the national grid by storing electricity generated by the solar PV panels when demand for electricity is low so it can then be exported onto the grid when demand peaks;
- On-site cables: to connect the solar panels and the battery energy storage system to the inverters, which in turn connect to the transformers;
- On-site substation: to export electricity from the Solar PV Panels to the national grid;
- Security fencing: to enclose the operational areas of the site along with pole-mounted internal facing closed circuit television (CCTV) deployed around the perimeter of the operational site;
- Site accesses: designated entry points to allow safe access to the different areas of the Site; and
- Planting: new trees and vegetation planted around the site perimeter to enhance biodiversity and contribute to the overall landscape.

4.1.5 In addition to the above, the Applicant started to consider measures to protect and enhance local wildlife and ecology to deliver BNG, and carried out assessments to identify areas that could be set aside to:

- Create new or enhance existing habitats for biodiversity net gain; and
- Implement buffer zones to maintain a sufficient distance between infrastructure and existing homes, landscape, ecological features, and Public Rights of Way.

BESS area optionality

4.1.6 The options for locating the BESS that were considered comprised either land at the Existing National Grid Melksham Substation, or within land at Lime Down D, as shown in **Figure 4-1** of this document. The land within Lime Down D and the land at Melksham Substation were identified because:

- The land at Melksham Substation provided an option closer to the Point of Connection at the Existing National Grid Melksham Substation which has benefits of minimising transmission losses,

maximising storage efficiency, providing effective grid balancing and supporting a faster and more reliable reaction to power outages and disruptions; and

- The land at Lime Down D provided an option that was in close proximity to the Solar PV Sites and the onsite substation. This too has the same benefits in terms of minimising transmission losses, maximising storage efficiency, providing effective grid balancing and supporting a faster and more reliable reaction to power outages and disruptions.

Cable Route Corridor optionality

4.1.7 For the Cable Route Corridor, an initial desk top study was undertaken to identify potential grid connection routes to link the Solar PV Sites to the land at the Existing National Grid Melksham Substation. As set out in **ES Volume 1, Chapter 4: Alternatives and Design Evolution [EN010168/APP/6.1]** the desk top study adopted the following methodology when selecting the initial options, in addition to the Design Principles:

- The route should be kept as straight and short as possible;
- Residential properties and gardens should be avoided and include a 25 m buffer where practicable;
- Direct significant impacts to internationally and nationally designated areas should be avoided;
- Direct significant impacts to ancient woodland should be avoided;
- Impacts on local wildlife sites should be minimised;
- The number of crossings of assets (e.g. utilities), transport infrastructure (road and rail), hedgerows and watercourses should be kept to a minimum; and
- The number and length of trenchless crossings should be kept to a minimum.

4.1.8 This resulted in three routes being identified initially, with an additional route also added which considered using the road verge along the A350.

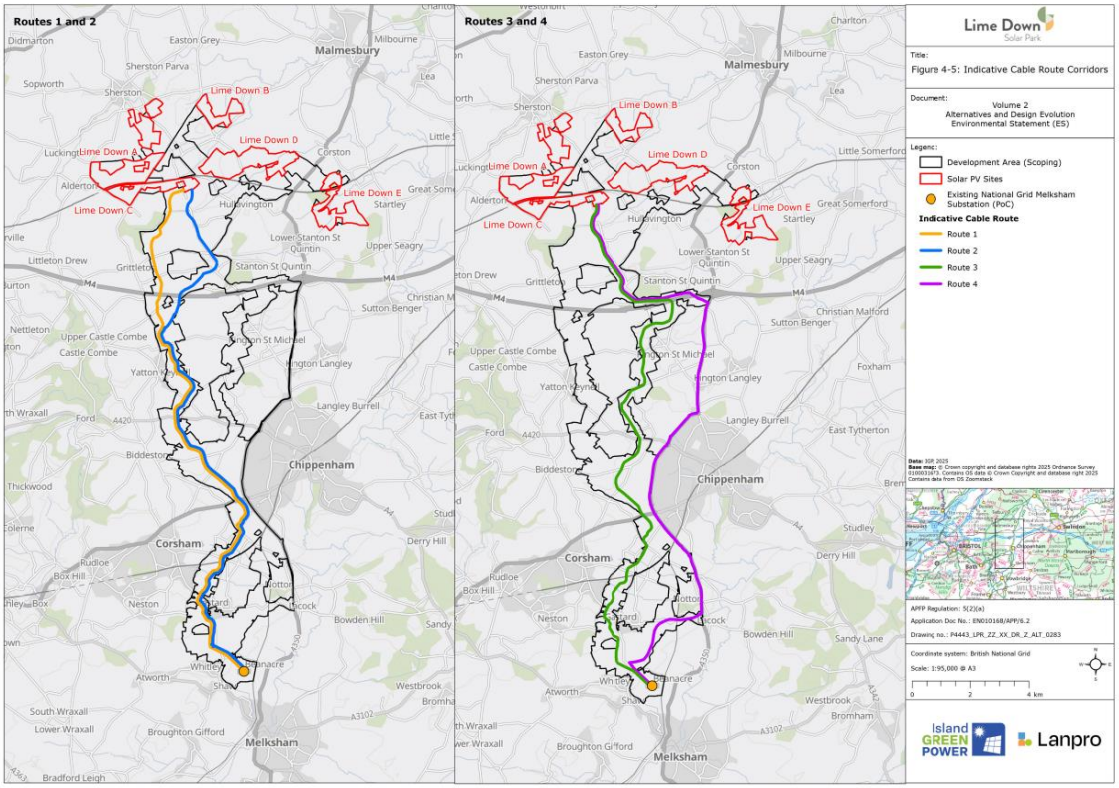
4.1.9 These four routes identified at this stage (shown in **Figure 4-1** (taken from **ES Volume 2, Figure 4-5: Indicative Cable Route Corridor [EN010168/APP/6.2]**)) comprised:

- Route 1: South from the Solar PV Sites, south across the M4 near Sevington then east of Yatton Keynell, then running south across

the A420, then west of Gastard and east of Corsham until it reaches the Existing National Grid Melksham Substation;

- Route 2: South from the Solar PV Sites towards Leigh Delamere, crossing the M4 west of Leigh Delamere, heading west and joining Route 1 south of the M4;
- Route 3: South from the Solar PV Sites, south across the M4 near Leigh Delamere then west of Kington St. Michael, across the A420 road, east of Gastard and West of Notton; and
- Route 4: A route that broadly follows the A350 south from M4 Junction 17.

Figure 4-1 Cable Route Corridor options at non-statutory consultation



Non-statutory consultation design (Spring 2024)

4.1.10 Following the design development set out above, the Applicant held a non-statutory consultation (also referred to as “Stage One Consultation”) from 14 March 2024 to 26 April 2024, where the initial Scheme design was presented.

4.1.11 **Figure 4-2** and **Figure 4-3** show the Scheme design that was presented at non-statutory consultation.

Figure 4-2 Non-statutory consultation design - Solar PV Areas

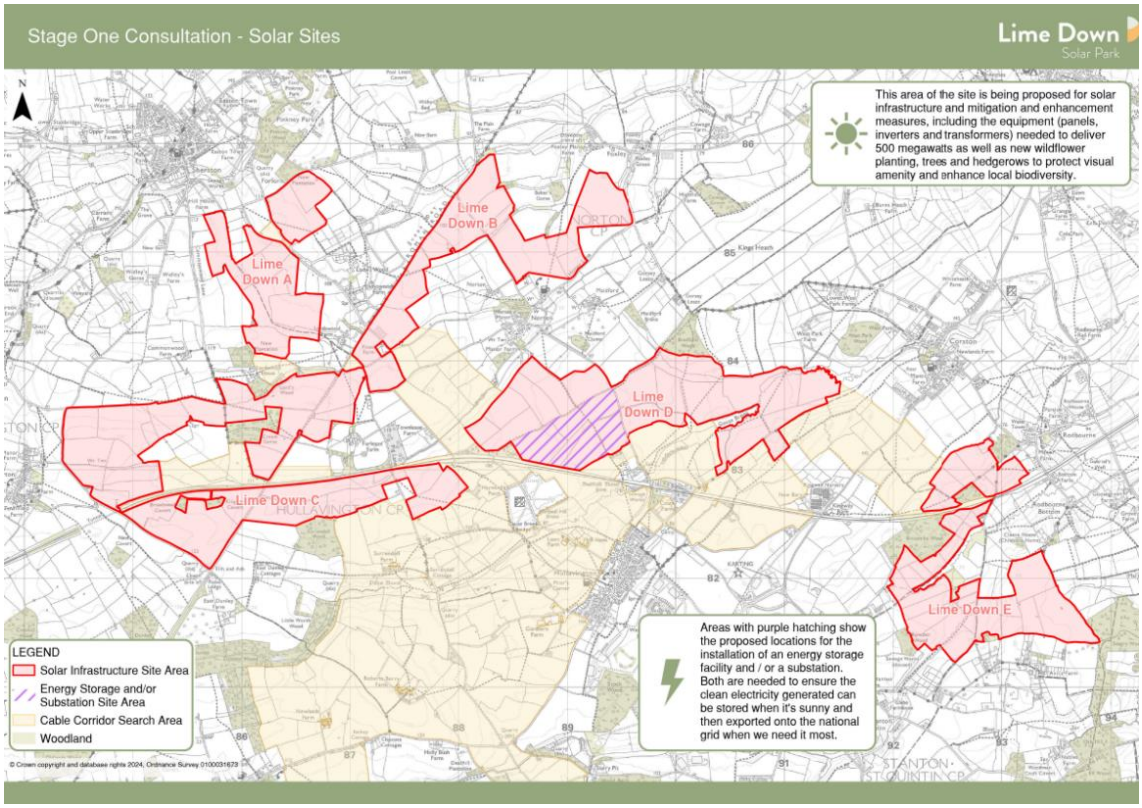
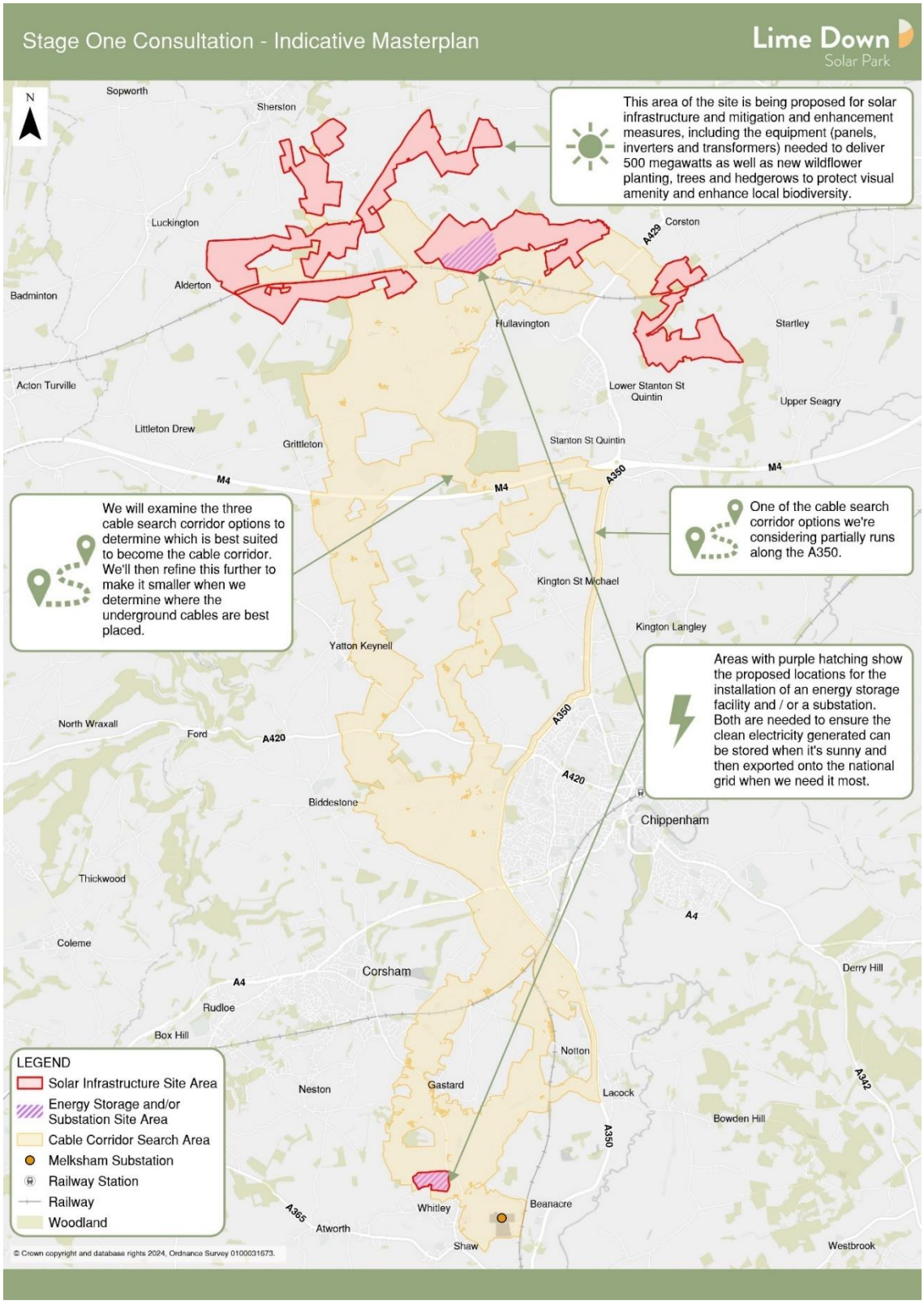


Figure 4-3 Non-statutory consultation design – Whole Site



4.1.12 The development area for the Scheme (excluding the Cable Route Corridor) shown at non-statutory consultation was as follows:

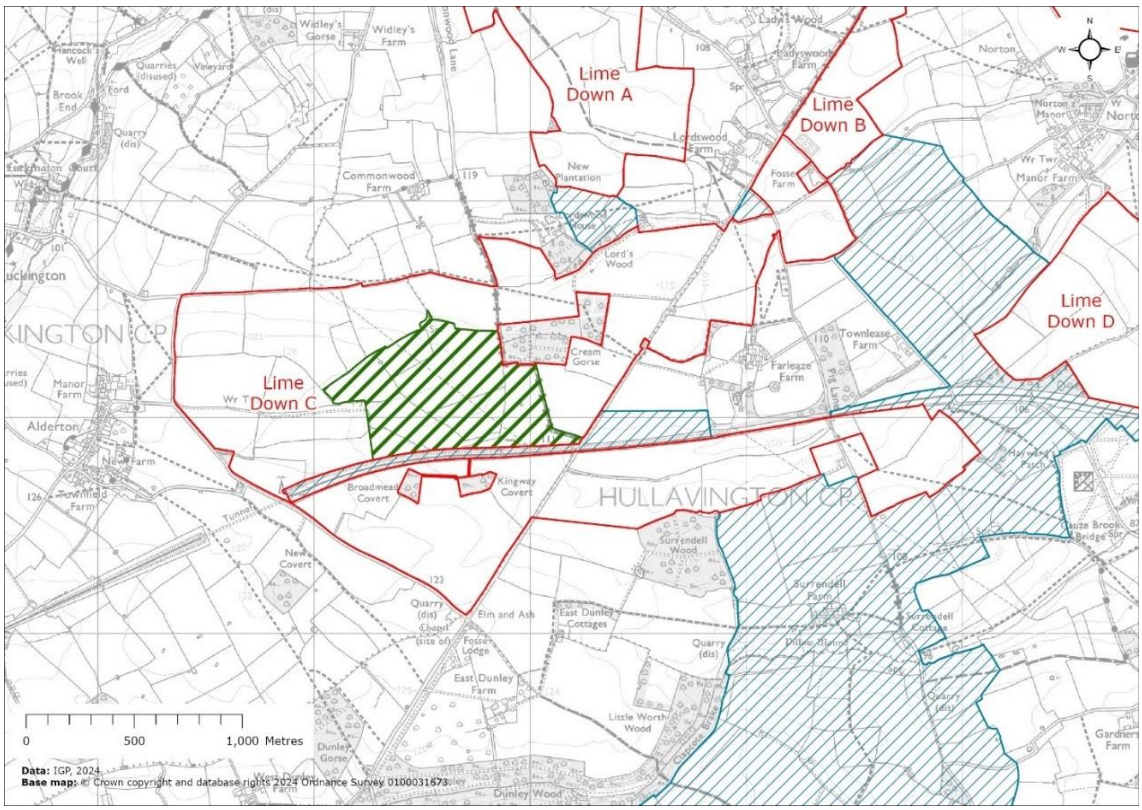
Table 4-1 Proposed development areas at non-statutory consultation

Location	Area
Lime Down A	94.28 ha
Lime Down B	113.74 ha
Lime Down C	272.81 ha
Lime Down D	212.47 ha
Lime Down E	145.01 ha
Land at Melksham Substation	18.37 ha
Total	**856.68 ha**

Design evolution up to EIA Scoping (Spring 2024 to Summer 2024)

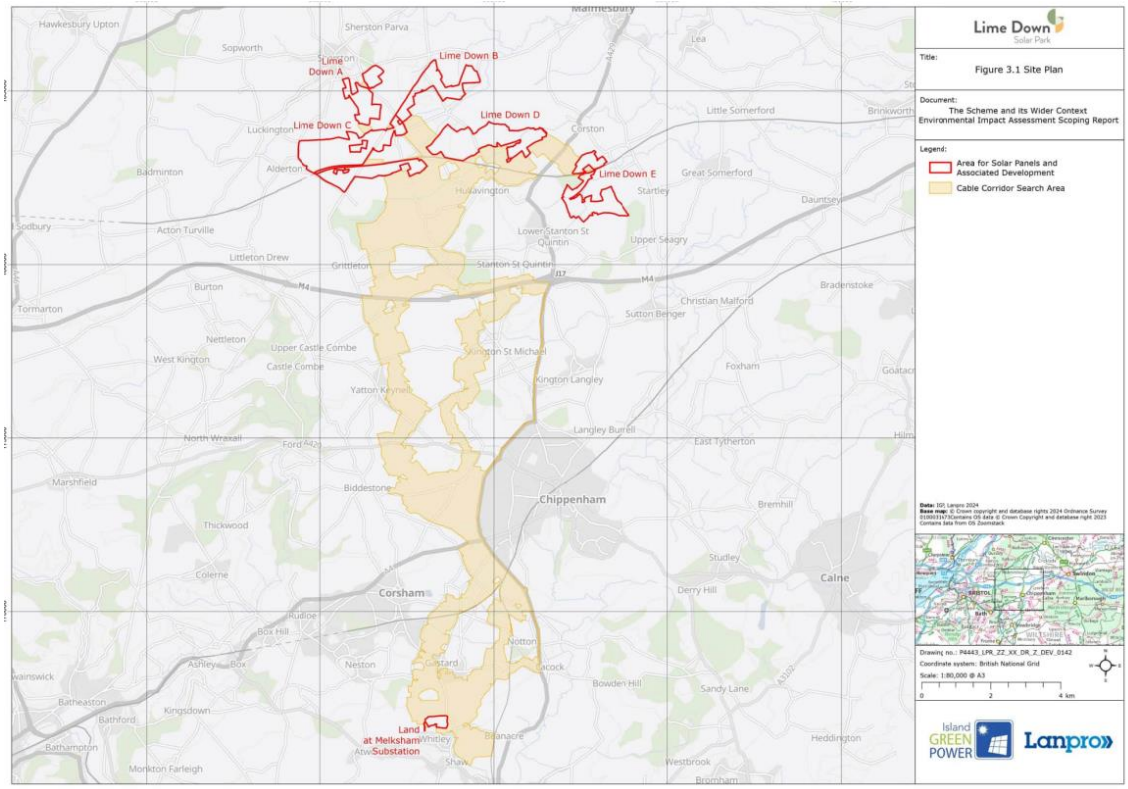
4.1.13 Following non-statutory consultation, an additional 44 ha of land as shown hatched in green on **Figure 4-4** was identified and added to Lime Down C, to allow for a greater setback of panel infrastructure from the CNL in order to help meet the project brief to provide renewable and low carbon energy into the National Grid at Melksham, for which there is an urgent need.

Figure 4-4 Land added to Lime Down C



4.1.14 The Applicant submitted the EIA Scoping Report for the Scheme to the Secretary of State on 16 July 2024 and a Scoping Opinion was provided by the Secretary of State on 22 August 2024. **Figure 4-5** shows the site plan that was submitted to the Secretary of State at the EIA scoping stage, which included the additional 44 ha of land.

Figure 4-5 EIA scoping site plan



4.1.15 Taking into account the additional 44 ha of land included in the Scheme design, the development area for the Scheme (excluding the Cable Route Corridor) shown at EIA Scoping was as follows:

Table 4-2 EIA Scoping Layout Area

Location	Area
Lime Down A	94.28 ha
Lime Down B	113.74 ha
Lime Down C	317.74 ha
Lime Down D	212.47 ha
Lime Down E	145.01 ha
Land at Melksham Substation	18.37 ha
Total	**901.61 ha**

Design evolution up to statutory consultation (Summer 2024 to Winter 2024)

4.1.16 Following non-statutory consultation and EIA Scoping, the Applicant continued to refine the design of the Scheme. As part of this refinement, the Applicant took into consideration the feedback received at the non-

statutory consultation, the Secretary of State's Scoping Opinion, the results of ongoing environmental surveys and assessments being carried out as part of the development of the Preliminary Environmental Information Report (PEIR), as well as engagement with stakeholders including the CNL Board, Wiltshire Council, Natural England, Historic England and the Environment Agency.

4.1.17 Feedback from the non-statutory consultation included concerns raised about impacts such as landscape, soils and agriculture, ecology and biodiversity, cultural heritage, noise and impacts on the local community. A detailed summary of the issues raised during the non-statutory consultation and the Applicant's response is provided in the **Consultation Report Appendices [EN010168/APP/5.2].**

4.1.18 This feedback, alongside ongoing technical engagement and environmental surveys and assessments was considered in order to develop the design of the Scheme. Key Scheme wide design considerations at this stage included:

- Identification of opportunities for a number of enhancements to existing PROWs and the provision of new non-vehicular permissive routes where it can be shown that there is a local need or appetite for such a route to be included as part of the Scheme, to create the potential for enhanced connectivity in the local area and help to improve recreation in the immediate vicinity, secondarily benefitting local population health and wellbeing in the long-term;
- Introduction of undeveloped buffer zones to safeguard important receptors for the lifetime of the Scheme, and provide sufficient and appropriate working areas to maintain habitats within the Scheme, such as hedgerows, without conflict between the operation of the Scheme;
- Prescriptions for the creation and management of all grassland within the Scheme (under panels and in buffer/ecological mitigation zones) to generate a simple mosaic of grassland habitats and provide ecological enhancement;
- Gapping up/enhancement of existing hedgerows as well as tree planting and the creation of areas of species-rich grassland within the Solar PV Sites, which may provide ecological 'stepping stones' for various species within the local, largely arable landscape;
- Identification of opportunities to create new areas of standing water, either in the form of swales for flood water attenuation or wildlife ponds including opportunities to restore former farmland ponds which have been lost (known as 'ghost' ponds) in appropriate locations and where conditions allow;

- Enhancement through the planting of new trees and hedgerows at boundaries, creation of new hedgerows at boundaries where none exist; and planting around PRoW and where landscape and visual impact mitigation is required;
- Identification of opportunities for the replanting of historic former field boundaries, where appropriate, including native, locally-appropriate and species-rich hedgerows;
- Identification of the opportunity for practicable ditch and watercourse management, including vegetation clearance (for choked ditches), options for improving water retaining ability of dry ditches, or planting of locally-appropriate wetland marginal species;
- Incorporation of a sensitive lighting strategy;
- Avoidance buffers from the following:
  - All hedgerows and woodland – 15 m;
  - A ditch or watercourse of any kind – 8 m;
  - Signs of Otter or abundant evidence of Water, Vole in the ditch or Watercourse, and Outlier badger setts – 10 m;
  - Individual Trees and groups of trees 10 m (unless Arboriculture surveys indicate greater Root Protection Area (RPA) is required);
  - Ancient Woodland – 15 m;
  - Some minor watercourses (depending on Ecological Value) – 15 m;
  - Ponds (with no Great Crested Newts) - 10 m;
  - Major watercourses, and Main badger setts – 30 m;
  - Ponds containing Great Crested Newts – 50 m;
  - Curtilage of Residential Properties – 50 m;
  - PRoW (Public Footpath, Bridleway) - 15 m;
  - Internal Drainage Board (IDB) drain – 9 m;
  - Services and other utilities – 6 m minimum;
  - Scheme Boundary – 5 m; and
  - Internal offset from fence to panel – 4 m minimum.

- Designing, constructing and implementing the Scheme in such a way as to minimise the creation of waste and maximise the use of alternative materials with lower embodied carbon, such as locally sourced products and materials with a higher recycled content where feasible;
- Sequentially locating electrical infrastructure, including substations and Conversion Units in areas with a 'Low' probability of flooding (less than 1 in 1,000 annual probability of river or sea flooding (<0.1%)), where practicable;
- Locating the BESS Area and Substation sites a minimum of 450 m and 400 m from sensitive receptor locations respectively to minimise noise and vibration effects; and
- Development of access routes and consideration of Highway Improvement Areas to ensure sufficient passing room.

Refinement of BESS area

4.1.19 In addition to the above considerations, the location of the BESS area was further considered, resulting in Lime Down D being chosen as the preferred location, over the land at the Existing National Grid Melksham Substation. Whilst all Design Principles applied, notably those relating to the Scheme being 'landscape led' (Design Principle 1), the adherence to the mitigation hierarchy (Design Principle 2), minimising impacts on amenity (Design Principle 5), minimising impacts on heritage assets (Design Principle 7), protecting the water environment (Design Principle 6), and minimising impacts to PRoW (Design Principle 9) provided a framework for design decision making in relation to the location of the BESS.

4.1.20 Lime Down D represented the option with the least overall effects because it is centrally located, well screened, is not close to many residential receptors and is in close proximity to built infrastructure being the existing railway line.

4.1.21 The land at the Existing National Grid Melksham Substation was discounted following feedback at non-statutory consultation, consideration of the Design Principles and further analysis of potential environmental effects, in particular:

- The rising topography of the proposed site may lead to more likely significant environmental effects;
- Mitigation measures to screen the BESS area would cause adverse effects on the intact character of the rural agricultural landscape which forms the setting of Whitley and would lead to a loss of views

to the Roman Road and arable farmland that forms the hinterland to Whitley;

- Flood risk in this area is typically the result of heavy rainfall, which, when combined with the existing sloping topography and soil conditions, limits the range of suitable sustainable drainage measures that can be implemented.
- The key constraint in relation to noise and vibration is the proximity of the nearest sensitive receptors, with the closest being identified at a minimum distance of 130 m from the proposed site, compared to a minimum distance of 700 m at Lime Down D.
- There are numerous footpaths in the vicinity from which the BESS area is visible. Due to the rising landform and the lack of vegetation along the southern edge of BESS Area, there is potential for the Scheme to be visible across the countryside to the south, especially from the adjacent northern edge of Whitley; and
- Discounting this proposed site for the BESS area avoids impacts to nearby designated heritage assets that may have arisen from the BESS Area.

Refinement of the Cable Route Corridor

4.1.22 The Cable Route Corridor was also further refined in the lead up to statutory consultation, to a south westerly corridor as shown on **Figure 4-6** (taken from **ES Volume 2, Figure 4-1: Development Site at Scoping and at PEIR [EN010168/APP/6.2]**) of this document**,** based on a comparative analysis such as the length of the route, the number of road, rail watercourse crossings, field boundaries and the agricultural grade of the land. Whilst all Design Principles applied, notably those relating to the adherence to the mitigation hierarchy (Design Principle 2), minimising impacts on amenity (Design Principle 5), protecting the water environment (Design Principle 6), and minimising impacts to PRoW (Design Principle 9) provided a framework for design decision making in relation to refinement of the Cable Route Corridor.

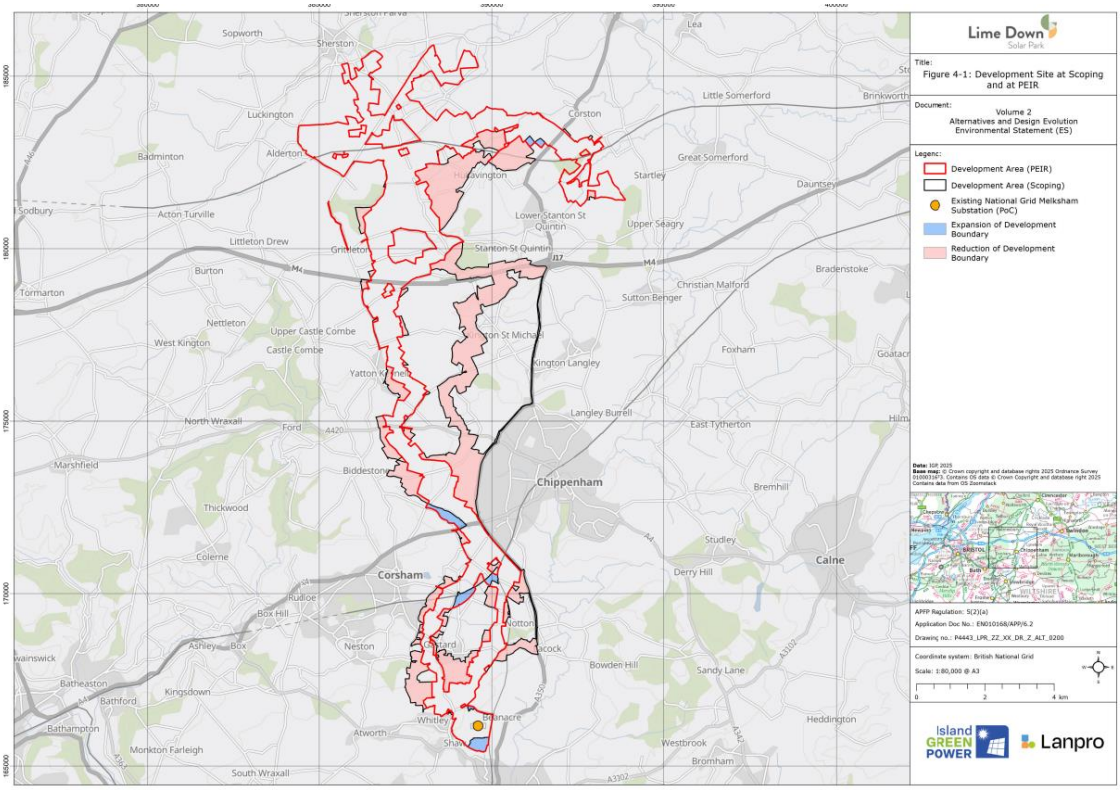
4.1.23 The analysis undertaken to refine the Cable Route Corridor identified a preferred route which avoided the greatest number of constraints, was shorter and has a shorter number of constraint crossings (such as railway, road, and PRoW crossings), and therefore the areas shown in light red on **Figure 4-6** below were removed from the layout. The analysis identified that Route 4 (along the A350) could be a preferred option due to it avoiding several major constraints and having the smallest number of constraint crossings. However, following consultation with Wiltshire Council, Route 4 was discounted due to concerns of potential disruptions

to road traffic associated with installation of the cable immediately adjacent to the A350 (the A350 being the most highly trafficked road managed by Wiltshire Council). As to co-ordinating the works with the planned duelling of the A350, Wiltshire Council also raised issues regarding co-ordination and timing, as an attempt to co-ordinate the works would likely affect the design and alignment of construction programmes for each scheme.

4.1.24 In addition, to minimise potential environmental effects, facilitate construction, and enable construction access, the Cable Route Corridor was expanded at five locations to provide further flexibility, as shown in blue on **Figure 4-6** below. These expansions included:

- Southeast of Lime Down D: minor expansion to allow access to be taken from the A429;
- North of the A4: expansion to allow flexibility in routing Cable Route Corridor in an area with multiple constraints such as the A4, A350, built development of Chippenham, and Pudding Brook and tributaries;
- Railway bridges east of Corsham: expansion to potentially allow the Cable Route Corridor to use the three bridges which crosses the railway. This approach would not require the use of HDD and avoid associated environmental effects; and
- South of the Existing National Grid Melksham Substation: expansion to potentially allow the Cable Route Corridor to be routed to the southern side of Existing National Grid Melksham Substation should a bay be made available for the Scheme in that location.

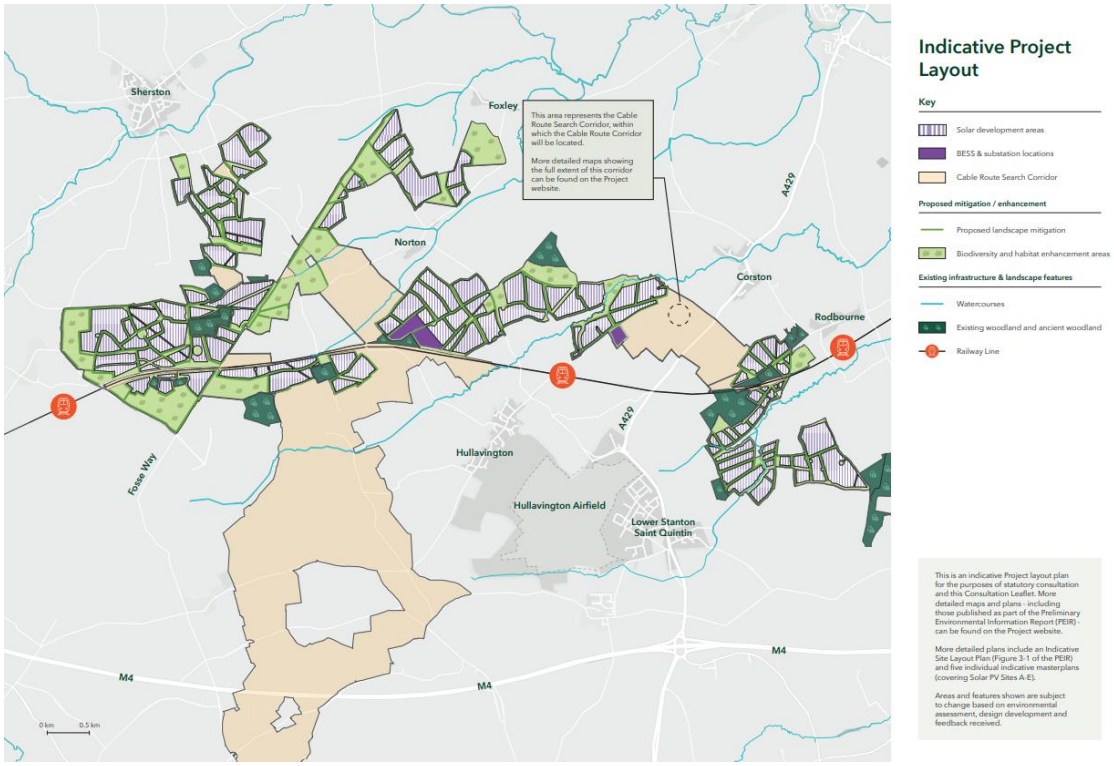
Figure 4-6 Refinement of Cable Route Corridor following EIA Scoping



4.1.25 Taking the Design Principles, feedback from the non-statutory consultation and EIA scoping, engagement with stakeholders, environmental surveys and assessments, the site context and further design refinement in relation to the BESS and Cable Route Corridor into account, an indicative design was prepared that was presented at statutory consultation. The statutory consultation took place from 29 January 2025 to 19 March 2025, where feedback was sought from prescribed consultees and the local community in relation to the indicative Scheme design.

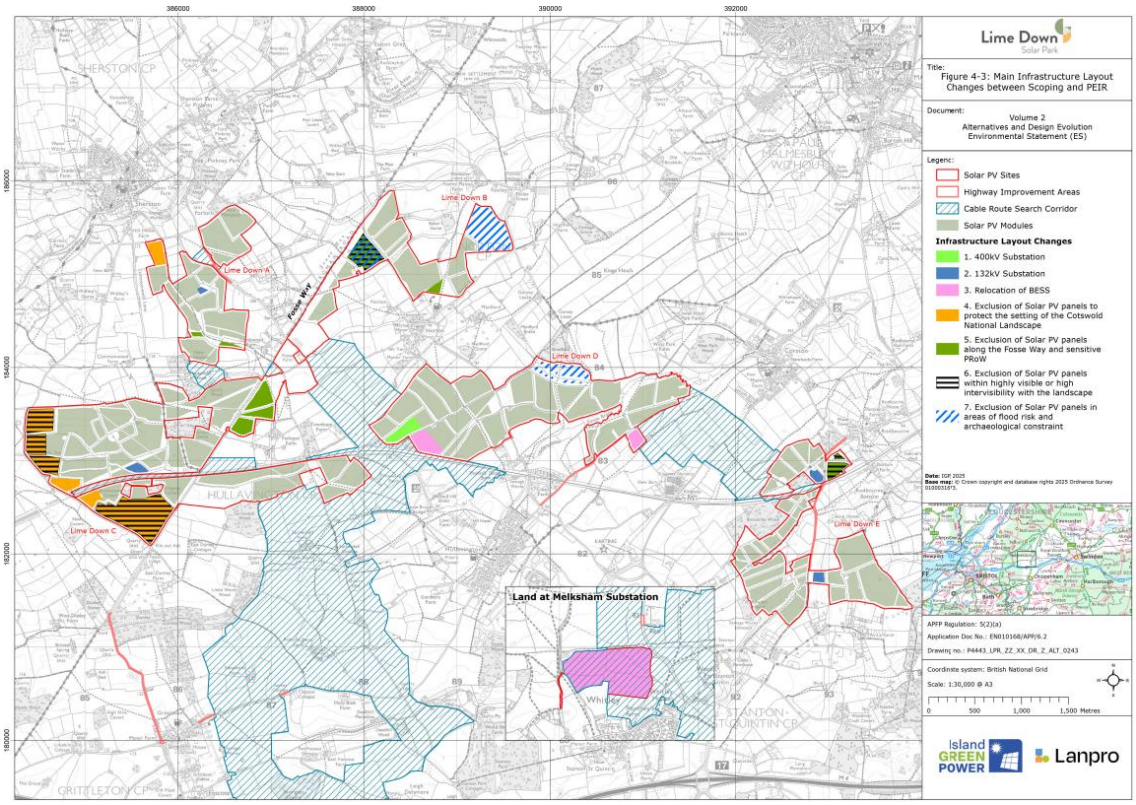
4.1.26 **Figure 4-7** shows the indicative layout plan for the Solar PV Sites shown at statutory consultation.

Figure 4-7 Indicative layout for Solar PV Sites shown at statutory consultation



4.1.27 **Figure 4-8** shows the changes made to the layout of the Scheme from EIA Scoping to statutory consultation.

Figure 4-8 Changes to layout from EIA scoping to statutory consultation



4.1.28 The following sections detail the design of the Scheme at each Solar PV Site, as presented at statutory consultation.

Lime Down A

4.1.29 As shown in **Figure 4-97** and **Figure 4-8** above, Lime Down A included 58 ha (62%) of Solar PV, and 36 ha (38%) of biodiversity net gain enhancements, and environmental buffers and mitigation.

4.1.30 The layout also included the location of one of the three 132 kv substations.

4.1.31 As a result of feedback from the CNL Board and Landscape Officer at Wiltshire Council, Solar PV Panels were excluded in part of field A1 as shown on **Figure 4-9** and **Figure 4-10,** for the purposes of environmental and biodiversity enhancement to protect the setting of the Cotswolds National Landscape. Solar PV Panels were excluded from field A8 and parts of field A7, which were retained for habitat and to provide open areas for species such as ground nesting birds.

Figure 4-9 Lime Down A - indicative layout at statutory consultation

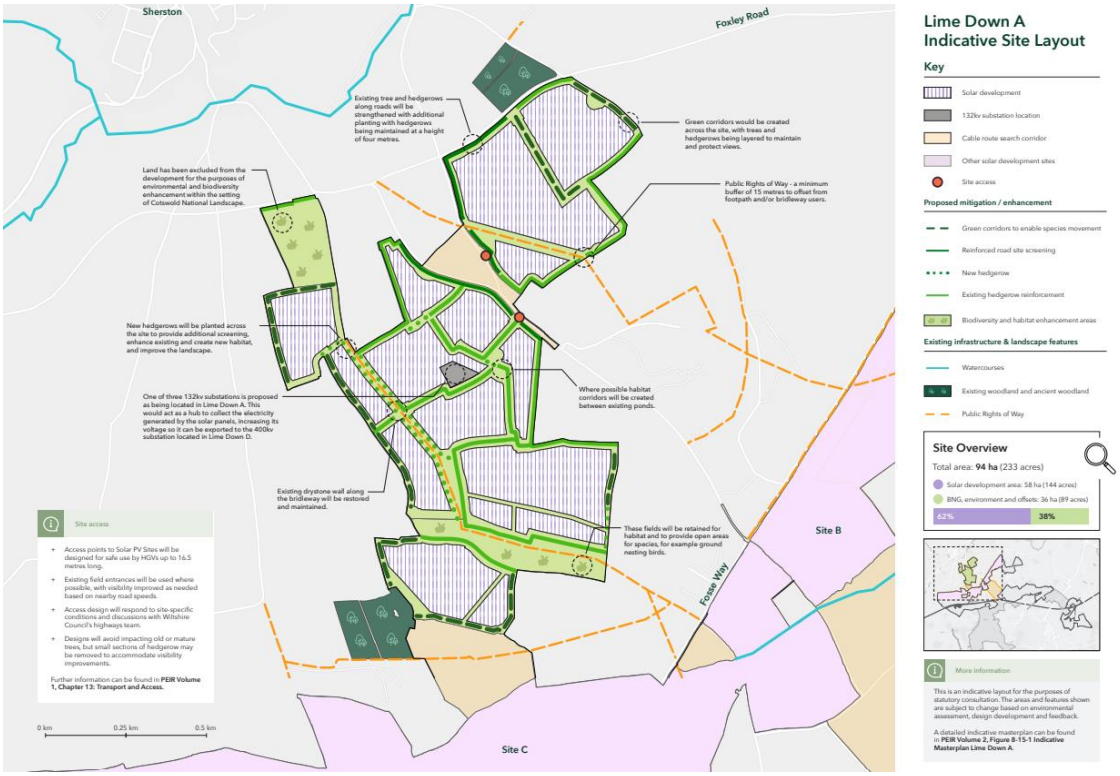
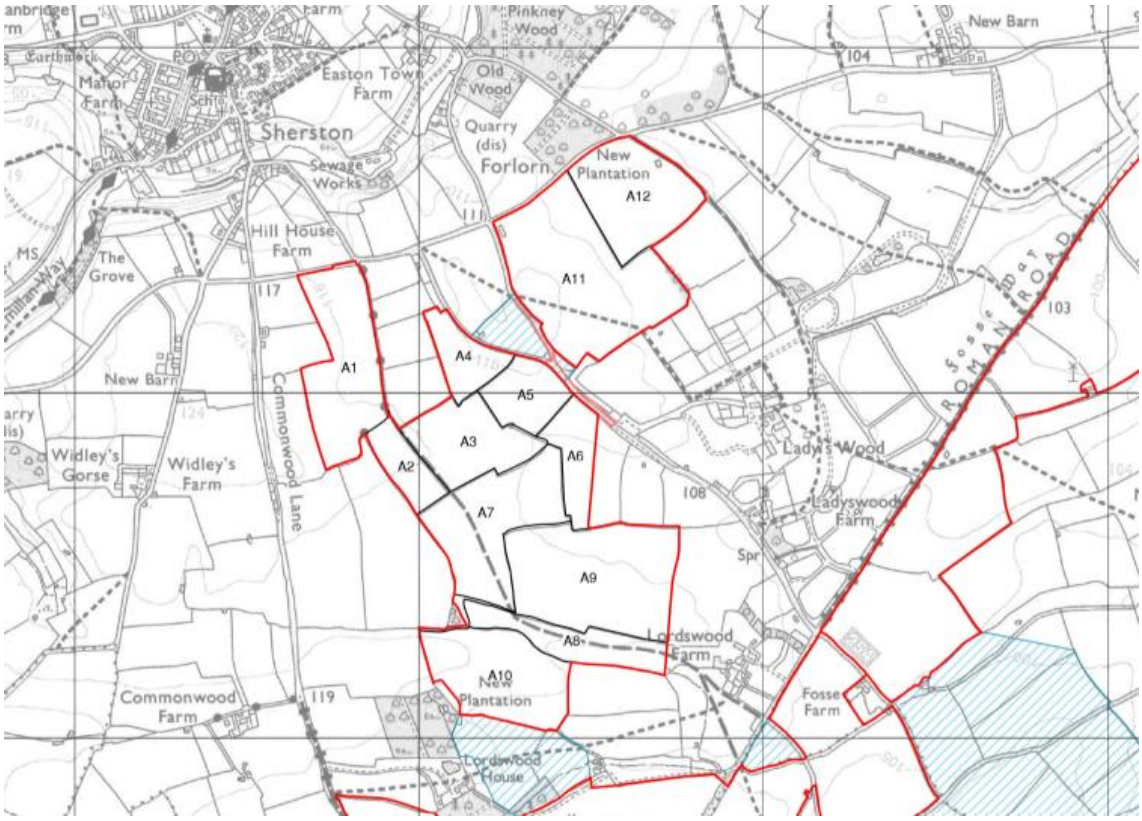


Figure 4-10 Lime Down A - field parcel numbers at statutory consultation



Lime Down B

4.1.32 As shown in **Figure 4-11** and **Figure 4-12** above, Lime Down B included 42 ha (37%) of Solar PV, and 72 ha (63%) of biodiversity net gain enhancements, and environmental buffers and mitigation.

4.1.33 Solar PV Panels were excluded in field B12 as shown on **Figure 4-11** and **Figure 4-12**, due to flood risk and archaeological constraints, with the field retained for habitat and to provide areas for species, for example ground nesting birds. Areas in field B9 were excluded from the Scheme for the purpose of maintaining views from the PRoW. Solar PV Panels were excluded in field B5 due to it being highly visible within the landscape. Field B1 and B5, and parts of B2 and B3 were retained for biodiversity and habitat enhancement.

Figure 4-11 Lime Down B – indicative layout at statutory consultation

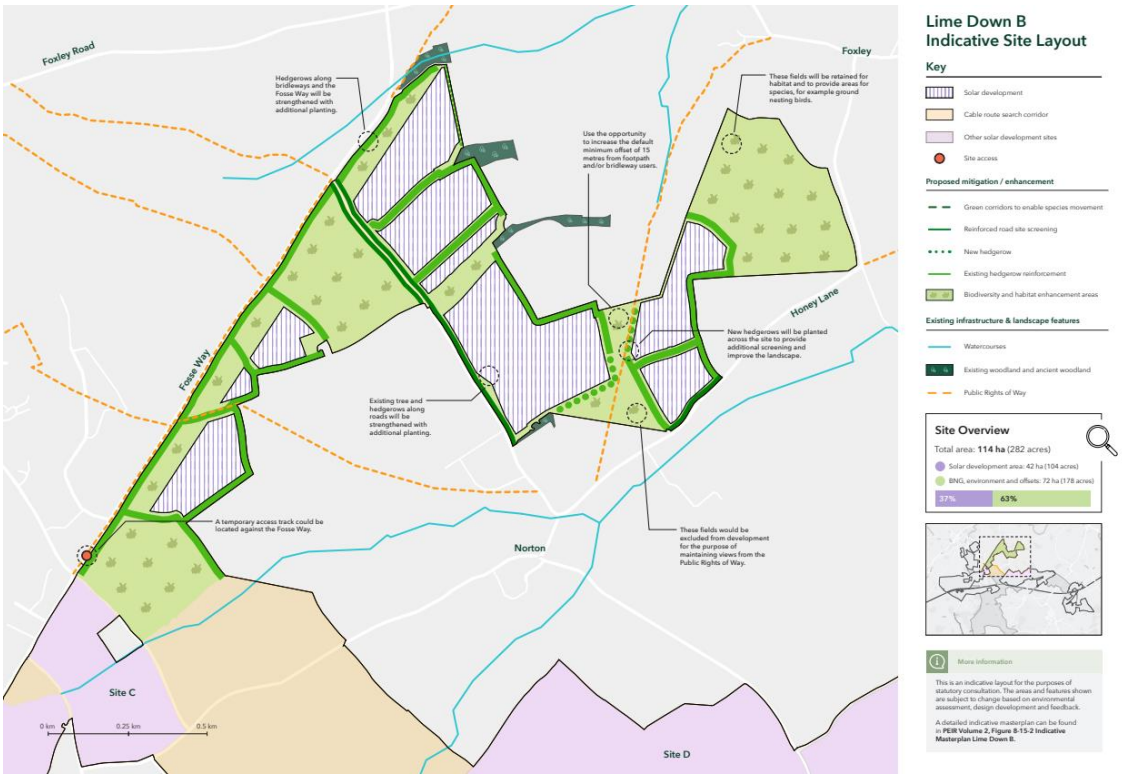
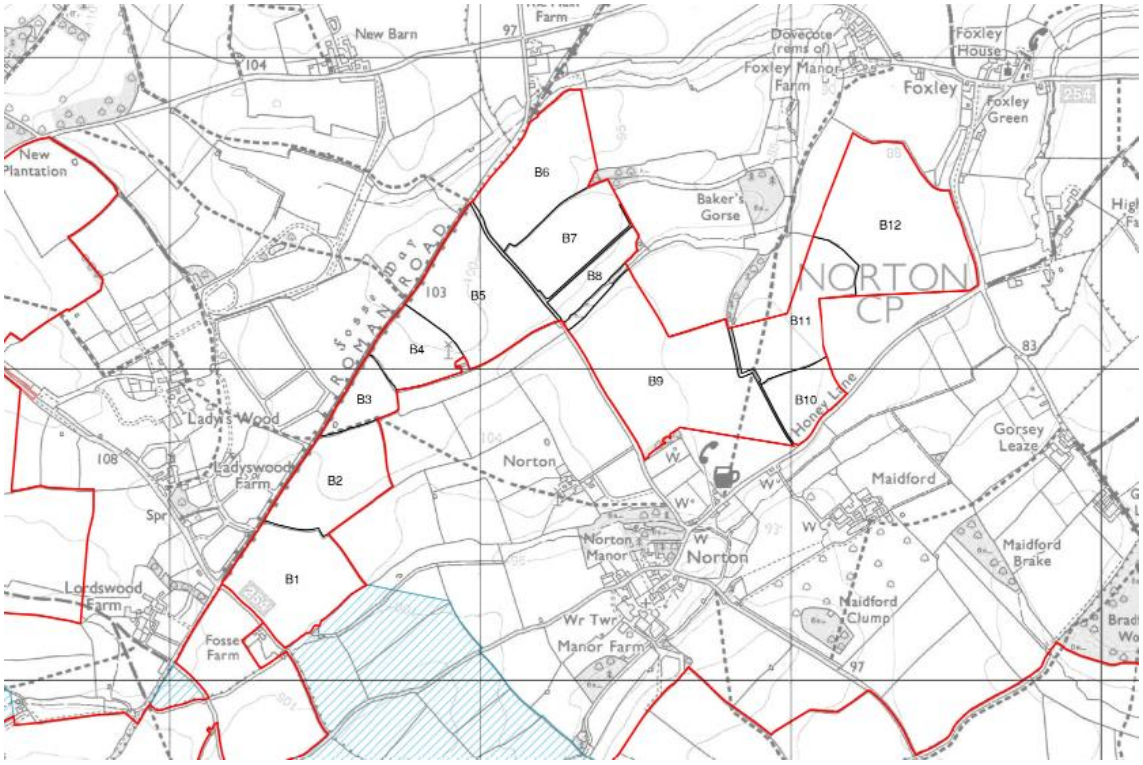


Figure 4-12 Lime Down B – field parcel numbers at statutory consultation



Lime Down C

4.1.34 As shown in **Figure 4-13** and **Figure 4-14**, Lime Down C included 152 ha (48%) of Solar PV, and 166 ha (52%) of biodiversity net gain enhancements, and environmental buffers and mitigation.

4.1.35 Solar PV Panels were excluded from a number of areas within Lime Down C, following discussions with the CNL Board and Wiltshire Council landscape officer, and considering the location of the Fosse Way, with these areas being retained for biodiversity and enhancement areas with the potential to accommodate a community orchard and apiary (as had been proposed in feedback from the non-statutory consultation). Solar PV Panels were excluded due to high visibility of these fields within the landscape, and to protect the setting of the CNL. These fields comprised C13, C16, C24, C25, C26, C27, C28 and parts of C1, C6, C8, C9 and C10.

4.1.36 The Lime Down C layout also included one of the three 132kv substations, to the west of the site.

Figure 4-13 Lime Down C - indicative layout at statutory consultation

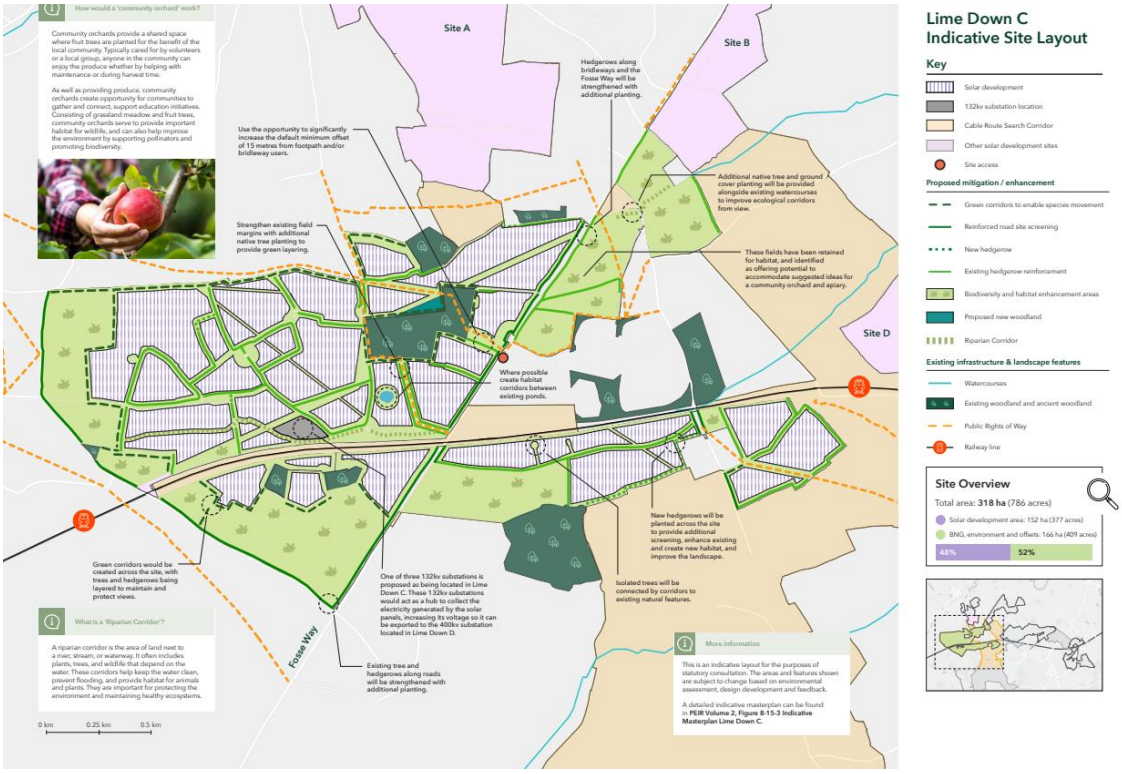
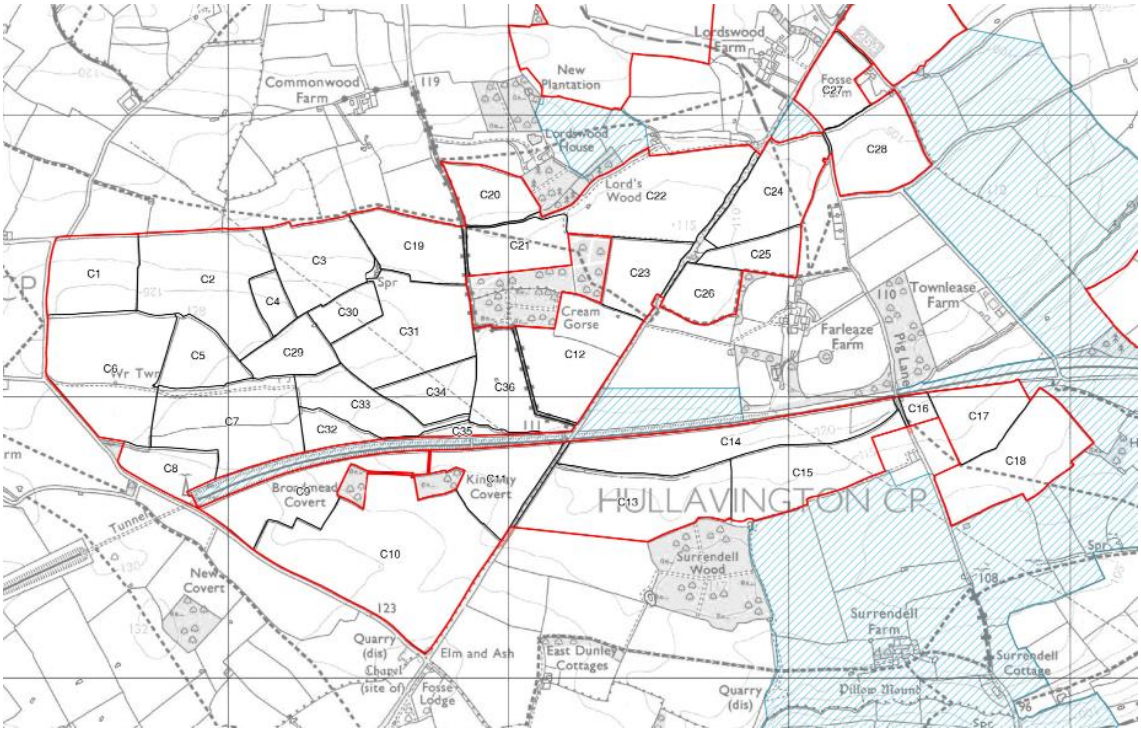


Figure 4-14 Lime Down C – field parcel numbers at statutory consultation



Lime Down D

4.1.37 As shown in **Figure 4-15** and **Figure 4-16**, Lime Down D included 131 ha (61%) of Solar PV, and 82 ha (39%) of biodiversity net gain enhancements, and environmental buffers and mitigation.

4.1.38 Solar PV Panels were excluded in fields D9 and D10 due to flood risk and archaeological constraints, with the fields being retained for biodiversity and habitat enhancement, including additional native tree and ground cover planting alongside existing watercourses to improve ecological corridors. Parts of field D4 and D6 were retained for habitat and to provide areas for species, for example ground nesting birds. Parts of fields D12, D13, D15, D16 and D17 were excluded from the Scheme to maintain views from the PRoW.

4.1.39 As shown in **Figure 4-15** two options for the location of the BESS within Lime Down D (field D1, or field D18) were consulted on at statutory consultation, based on the site size needed for the BESS Area and in order that it would be at least 340 m away from residential properties.

Figure 4-15 Lime Down D - indicative layout at statutory consultation

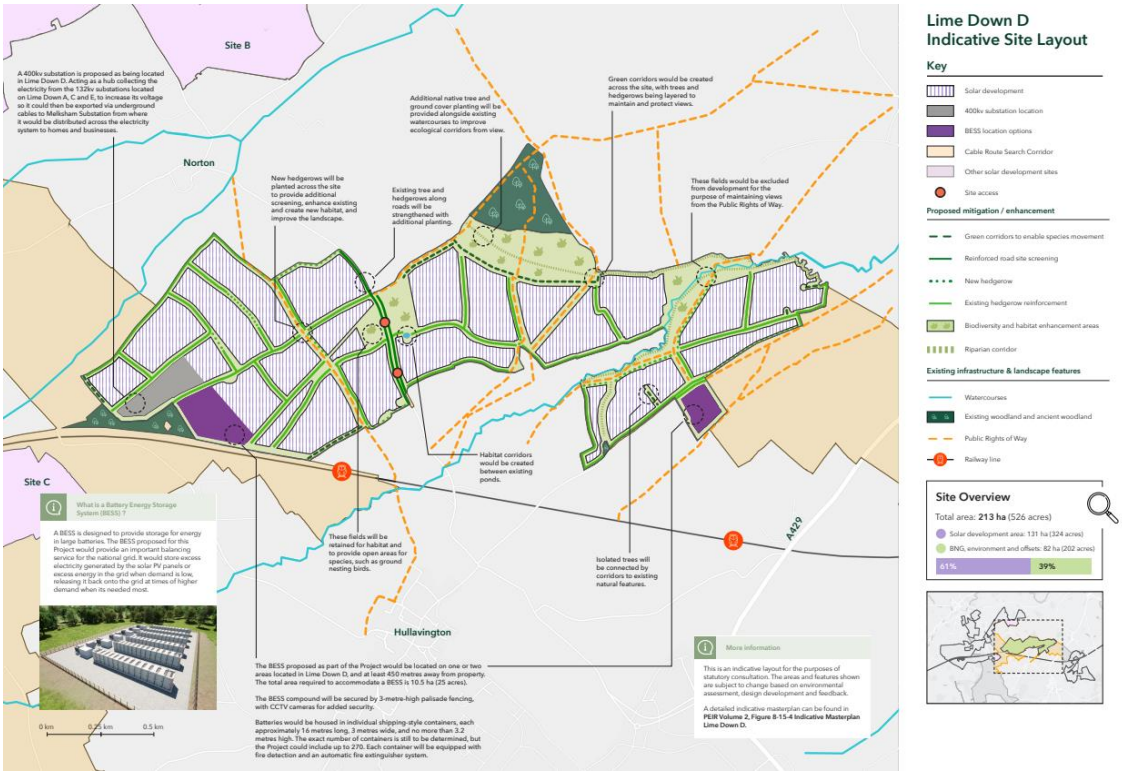
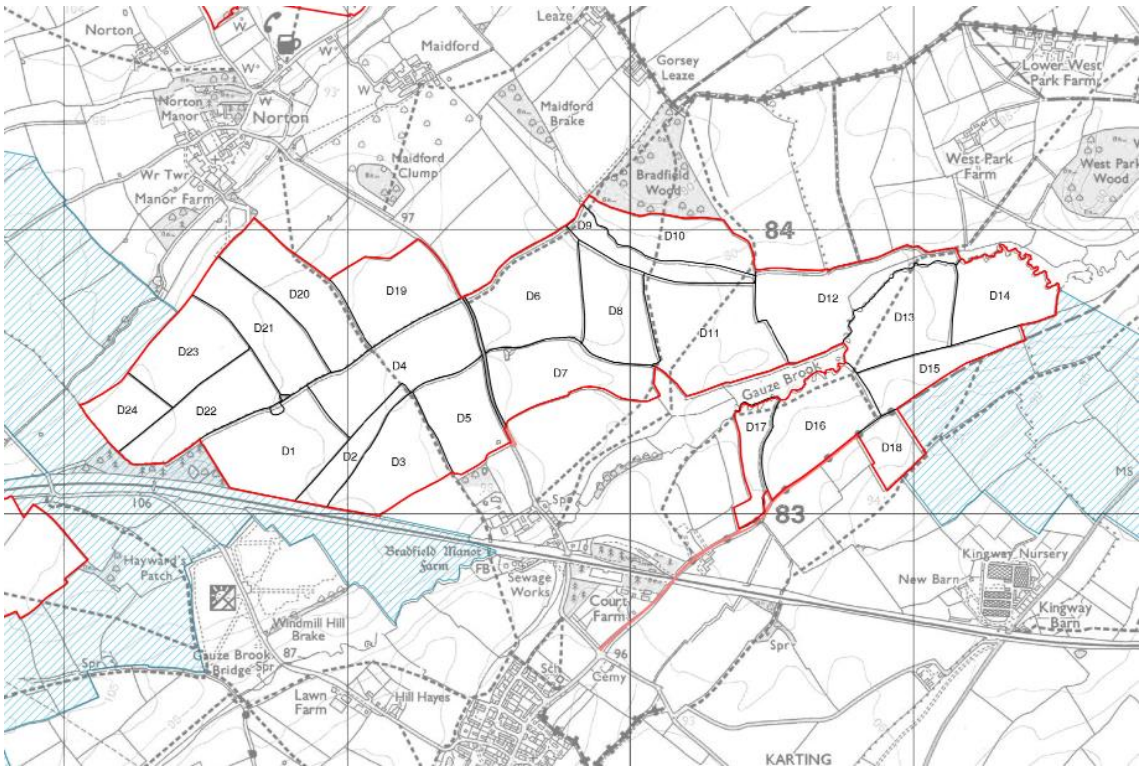


Figure 4-16 Lime Down D – field parcel numbers at statutory consultation



Lime Down E

4.1.40 As shown in **Figure 4-17** and **Figure 4-18**, Lime Down E included 81 ha (58%) of Solar PV, and 58 ha (42%) of biodiversity net gain enhancements, and environmental buffers and mitigation.

4.1.41 Field E8 was excluded from the Scheme in order to maintain views from the PRoW, and Solar PV Panels were excluded from fields E16 and E22 for the purpose of biodiversity and habitat enhancement.

4.1.42 Two locations within Lime Down E for one of three 132 kv substations were also identified as part of this layout, as shown on **Figure 4-17**.

Figure 4-17 Lime Down E - indicative layout at statutory consultation

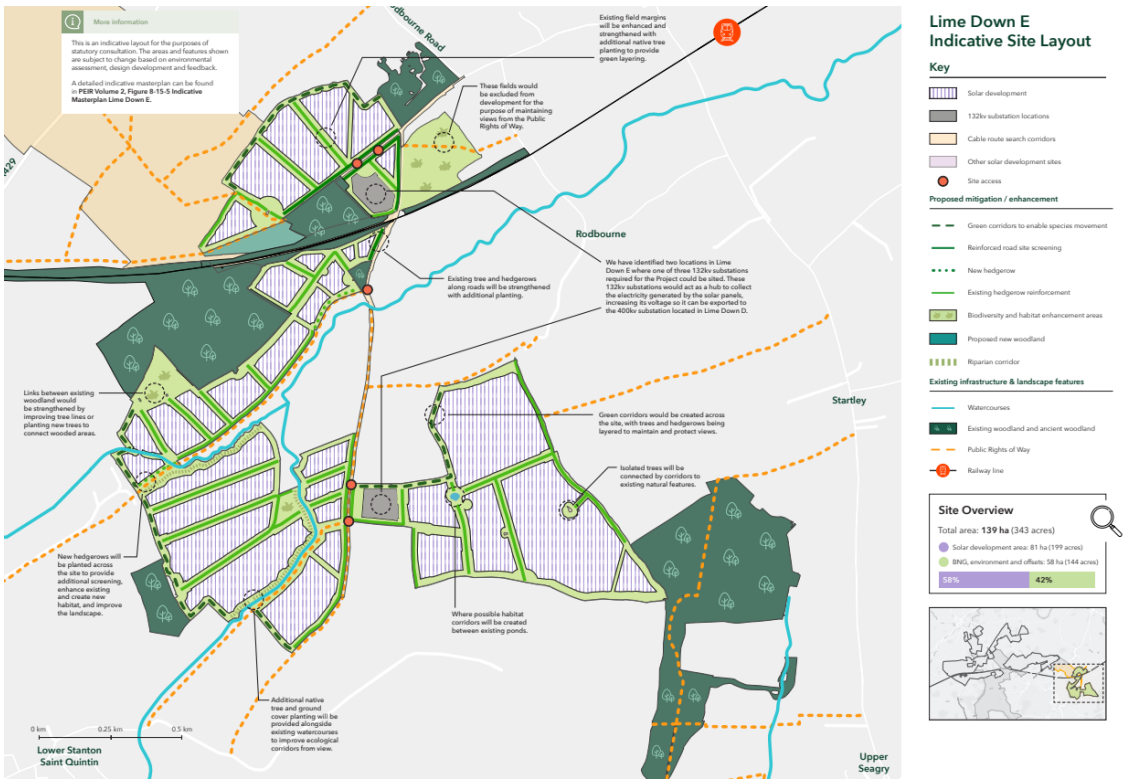
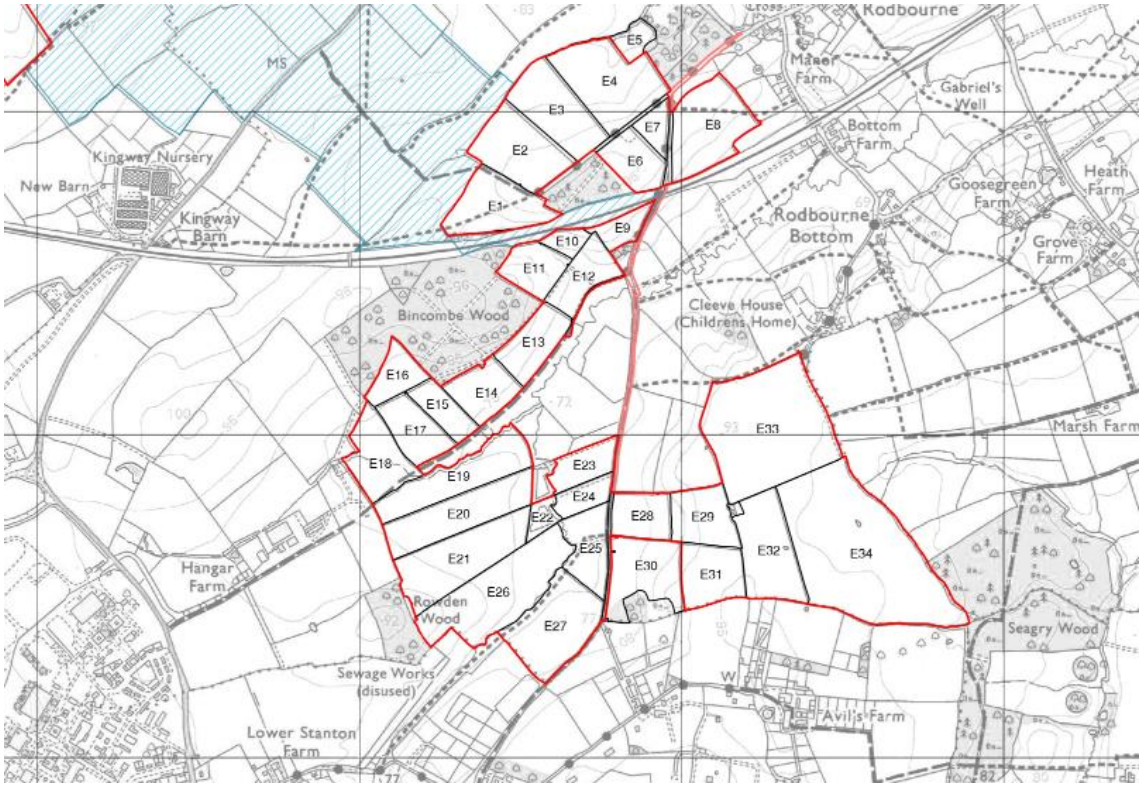


Figure 4-18 Lime Down E – field parcel numbers at statutory consultation



Summary

4.1.43 **Table 4-3** below sets out a summary of the design factors considered based on the local context of the Scheme, including the constraints and opportunities identified in Section 3.5 of this DAD, the relevant Design Principles that were considered and a summary of the design outcomes that were implemented to the Scheme design in the lead up to statutory consultation.

Table 4-3 Design factors considered, Design Principles and summary of outcomes up to statutory consultation

Design factor considered	Relevant Design Principle	Summary of outcomes
Landscape and visual sensitivities of the land at Melksham for the BESS Area and substations.	Design Principle 1 - The design of the Scheme will be 'Landscape Led' and give due weight to the intrinsic character and beauty of the surrounding countryside. Design Principle 2 - Adherence to the mitigation hierarchy to reduce impacts and control any adverse effects on the environment throughout the lifecycle of the Scheme from construction through to operation and maintenance and decommissioning. Design Principle 5 - The Scheme will be carefully designed to minimise where practicable impacts on amenity from air quality, traffic and noise effects and safeguard the health and safety of local residents by securing suitable control measures during construction, operation	Removal of the BESS Area from Melksham and locating it in Lime Down D, which represented the option with the least overall effects because it is centrally located, well screened, is not close to many residential receptors and is in close proximity to built infrastructure being the existing railway line.

Design factor considered	Relevant Design Principle	Summary of outcomes
	and maintenance and decommissioning of the Scheme. Design Principle 7 - The design of the Scheme will be sensitive to above and below ground heritage assets and their setting, by locating infrastructure at a suitable distance and through appropriate landscape screening. Design Principle 9 - The Scheme will seek to minimise the effects of the development on Public Rights of Way by incorporating measures to maintain, and where practicable, explore opportunities to improve the local footpath network.	
Extent of buffers required to protect the CNL and its setting.	Design Principle 1 - The design of the Scheme will be 'Landscape Led' and give due weight to the intrinsic character and beauty of the surrounding countryside. Design Principle 2 - Adherence to the mitigation hierarchy to reduce impacts and control any adverse effects on the environment throughout the lifecycle of the Scheme from construction through to operation and maintenance and decommissioning.	Exclusion of Solar PV Panels in field parcels with views to the CNL to avoid and minimise effects.

Design factor considered	Relevant Design Principle	Summary of outcomes
	Design Principle 8 - The Scheme will be sensitive to existing land uses where practicable and maximise opportunities to strengthen green and blue infrastructure.	
Sensitive landscape receptors such as the Fosse Way, publicised long-distance footpaths and PRoW.	Design Principle 1 - The design of the Scheme will be 'Landscape Led' and give due weight to the intrinsic character and beauty of the surrounding countryside. Design Principle 2 - Adherence to the mitigation hierarchy to reduce impacts and control any adverse effects on the environment throughout the lifecycle of the Scheme from construction through to operation and maintenance and decommissioning. Design Principle 8 - The Scheme will be sensitive to existing land uses where practicable and maximise opportunities to strengthen green and blue infrastructure. Design Principle 9 - The Scheme will seek to minimise the effects of the development on Public Rights of Way by incorporating measures to maintain, and where	Reinforcement of native tree and hedgerow planting along roadsides and PRoW. Reinforcement of hedgerows along bridleways and the Fosse Way.

Design factor considered	Relevant Design Principle	Summary of outcomes
	practicable, explore opportunities to improve the local footpath network.	
Analysis of topography in relation to visibility and identification of areas sensitive to landscape and visual change.	Design Principle 1 - The design of the Scheme will be 'Landscape Led' and give due weight to the intrinsic character and beauty of the surrounding countryside. Design Principle 2 - Adherence to the mitigation hierarchy to reduce impacts and control any adverse effects on the environment throughout the lifecycle of the Scheme from construction through to operation and maintenance and decommissioning.	Exclusion of Solar PV Panels from sloped land with high visibility. Sensitive siting of Solar PV Panels within field boundaries to reduce impacts on the landscape. Provision of new hedgerows to protect visual amenity and improve landscape structure.
Potential impacts to ecology and biodiversity sites and features	Design Principle 2 - Adherence to the mitigation hierarchy to reduce impacts and control any adverse effects on the environment throughout the lifecycle of the Scheme from construction through to operation and maintenance and decommissioning. Design Principle 3 - The Scheme will deliver a minimum 10% net gain for biodiversity through strategic habitat creation and enhancement measures.	Inclusion of undeveloped buffer zones to maintain habitats within the Scheme. Provision of additional native tree and ground cover planting alongside the existing water courses to improve ecological corridors and connections to surrounding landscape.

Design factor considered	Relevant Design Principle	Summary of outcomes
	Design Principle 8 - The Scheme will be sensitive to existing land uses where practicable and maximise opportunities to strengthen green and blue infrastructure.	Creation of habitat connections between existing ponds where practicable. Retention of selected fields for ecological mitigation, such as ground nesting bird mitigation, to provide greater ecological value.
Impacts on arboricultural features	Design Principle 1 - The design of the Scheme will be 'Landscape Led' and give due weight to the intrinsic character and beauty of the surrounding countryside. Design Principle 2 - Adherence to the mitigation hierarchy to reduce impacts and control any adverse effects on the environment throughout the lifecycle of the Scheme from construction through to operation and maintenance and decommissioning. Design Principle 3 - The Scheme will deliver a minimum 10% net gain for biodiversity through strategic habitat creation and enhancement measures. Design Principle 8 - The Scheme will be sensitive to existing land uses where	Improvement of tree line connections between existing woodland and/or the creation of new woodlands with connectivity to existing woodlands. Enhancement of existing field margins with additional native tree planting to provide reinforcement of the existing landscape framework. Connection of isolated trees to green infrastructure.

Design factor considered	Relevant Design Principle	Summary of outcomes
	practicable and maximise opportunities to strengthen green and blue infrastructure	
The need to site infrastructure in low flood risk areas to avoid potential flood risks relating to increase in impermeable area, and discharge to watercourses, along with pollution risks	Design Principle 2 - Adherence to the mitigation hierarchy to reduce impacts and control any adverse effects on the environment throughout the lifecycle of the Scheme from construction through to operation and maintenance and decommissioning. Design Principle 6 - The Scheme will protect the water environment by adhering to good pollution control practice and be resilient from flooding both now and in the future and not increase the risk of flooding elsewhere.	Locating electrical infrastructure such as substations and conversion units in areas of low flood risk. Exclusion of Solar PV Panels near watercourses.
Location of non-designated archaeological features within the Order Limits, and potential impacts to the settings of designated heritage assets	Design Principle 2 - Adherence to the mitigation hierarchy to reduce impacts and control any adverse effects on the environment throughout the lifecycle of the Scheme from construction through to operation and maintenance and decommissioning. Design Principle 7 - The design of the Scheme will be sensitive to above and below ground heritage assets and their	Exclusion of Solar PV Panels in areas of archaeology. Buffer zones and offsets to heritage assets. Maintenance of views to and from churches.

Design factor considered	Relevant Design Principle	Summary of outcomes
	setting, by locating infrastructure at a suitable distance and through appropriate landscape screening.	
Presence of recreational and tourism facilities within and surrounding the Order Limits, including PRoW	Design Principle 1 - The design of the Scheme will be 'Landscape Led' and give due weight to the intrinsic character and beauty of the surrounding countryside. Design Principle 2 - Adherence to the mitigation hierarchy to reduce impacts and control any adverse effects on the environment throughout the lifecycle of the Scheme from construction through to operation and maintenance and decommissioning. Design Principle 8 - The Scheme will be sensitive to existing land uses where practicable and maximise opportunities to strengthen green and blue infrastructure. Design Principle 9 - The Scheme will seek to minimise the effects of the development on Public Rights of Way by incorporating measures to maintain, and where practicable, explore opportunities to improve the local footpath network.	Minimum buffer of 15 m to PRoW, with opportunities to increase this in certain areas. Opportunities for a number of enhancements to existing PROWs and the provision of new non-vehicular permissive routes.

Design factor considered	Relevant Design Principle	Summary of outcomes
The existing agricultural use of the land	Design Principle 2 - Adherence to the mitigation hierarchy to reduce impacts and control any adverse effects on the environment throughout the lifecycle of the Scheme from construction through to operation and maintenance and decommissioning. Design Principle 8 - The Scheme will be sensitive to existing land uses where practicable and maximise opportunities to strengthen green and blue infrastructure.	Retention of selected fields for agriculture use.
Potential impacts on local communities	Design Principle 2 - Adherence to the mitigation hierarchy to reduce impacts and control any adverse effects on the environment throughout the lifecycle of the Scheme from construction through to operation and maintenance and decommissioning. Design Principle 4 - The Scheme design will retain a degree of flexibility to enable it to adapt over time, be functional and fit for purpose, and respond to innovative and new technologies as well as building resilience to climate change.	Retaining fields for habitat with potential to accommodate suggested ideas for a community orchard and apiary.

Design factor considered	Relevant Design Principle	Summary of outcomes
	Design Principle 8 - The Scheme will be sensitive to existing land uses where practicable and maximise opportunities to strengthen green and blue infrastructure.	

4.1.44 The resulting development area for the Scheme (excluding the Cable Route Corridor) shown at statutory consultation was as follows:

Table 4-4 Area of Solar PV Sites at statutory consultation

Location	Area
Lime Down A	94 ha
Lime Down B	114 ha
Lime Down C	318 ha
Lime Down D	213 ha
Lime Down E	139 ha
Total	**878 ha**

Design evolution up to DCO submission (Spring 2025 to Autumn 2025)

4.1.45 Following the statutory consultation stage the design of the Scheme was further refined based on feedback from the statutory consultation, ongoing discussions with key stakeholders including (but not limited to) officers from the CNL Board and Wiltshire Council regarding the CNL and protection of its setting, ongoing surveys and the findings of the environmental assessment, and consideration of the Design Principles.

4.1.46 The refinements made to the Scheme in the lead up to the DCO submission include:

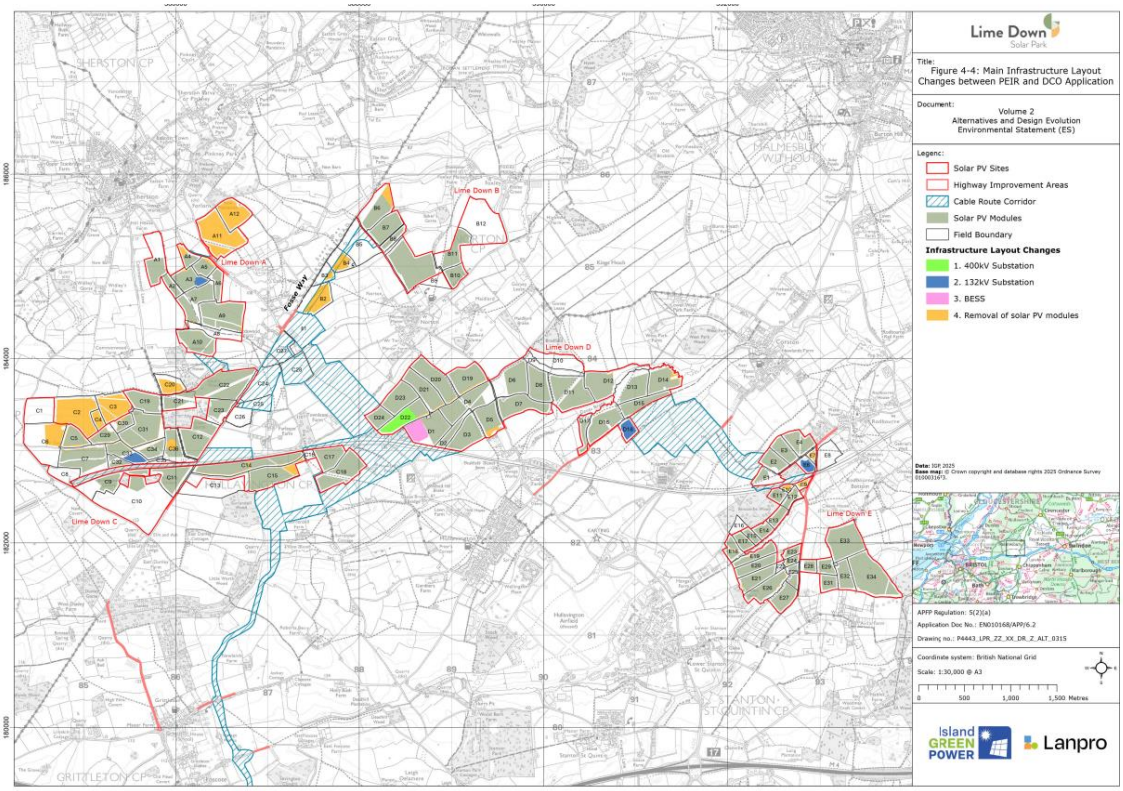
- Further reduction of the Scheme area and removal of Solar PV Panels within field parcels, to reduce landscape and visual impacts, heritage and other environmental constraints, and provide opportunities for enhancement measures;
- Minor increases to the Order Limits to facilitate temporary highway and traffic works, and to avoid areas of woodland and hedgerow, which have been informed by further design work and due diligence, ongoing consideration of feedback from statutory consultation and the findings of the EIA assessment. These amendments are discussed where relevant in the sections below. A targeted consultation was held from 3 June until 11 July 2025 regarding the minor increases to the Order Limits. Details of the targeted consultation are set out in the **Consultation Report [EN010168/APP/5.1]**;
- Further refinement of the Cable Route Corridor;

- Further development of landscape and ecological measures including specification of location specific measures and the development of the **Outline LEMP [EN010168/APP/7.18]**;
- Refinement of access locations and design ensuring that accesses have been specifically designed to utilise existing field entrances and gaps in hedgerows and other linear habitats wherever possible, and internal access/maintenance tracks have been routed so as to avoid designated ecological buffer zones wherever possible. Where new accesses are proposed, they will be designed to the relevant safety standards, and will not impact on veteran or protected trees. Details of the location and number of accesses proposed for the construction and operation of the Scheme are set out in **ES Volume 1, Chapter 3: The Scheme [EN010168/APP/6.1],** shown on **ES Volume 2, Figure 3-1: Indicative Site Layout Plan [EN010168/APP/6.2]** and set out in the **Outline Construction Traffic Management Plan (CTMP) [EN010168/APP/7.22]**;
- Refinement of crossings for access, ensuring that the Scheme avoids and minimises direct impacts upon watercourses by utilising existing crossings for access wherever possible. No new crossings for access are required at any of those watercourses identified as potentially suitable for eels or sea trout. A crossing schedule (within **ES Volume 3, Appendix 11-1: Flood Risk Assessment and Drainage Strategy Covering Report [EN010168/APP/6.3])** has been prepared detailing the location and type of crossings proposed for both cables and access; and
- Identification of locations for permissive paths, as shown **ES Volume 2, Figure 3-4: Landscape and Ecology Mitigation Plan [EN010168/APP/6.2]**, resulting in minor increases to the Order Limits.

4.1.47 These measures are set out in more detail below.

4.1.48 **Figure 4-19** illustrates the changes that were made to the Scheme from statutory consultation to DCO submission. The areas in orange show where Solar PV Panels have been removed from the Scheme.

Figure 4-19 Changes to the Scheme following statutory consultation



Lime Down A

4.1.49 Solar PV Panels were removed in fields A11 and A12 in order to protect the CNL and its setting. Fields A11 and A12 will be planted instead. In addition, Solar PV Panels were also removed from the tip of field A4 to increase the buffer from a residential property. These removals are shown in orange in **Figure 4-20** and **Table 4-5** sets out the relevant Design Principles.

4.1.50 The area in blue on **Figure 4-20** also shows the area where the 132kV substation is proposed to be located, which has increased in size since statutory consultation, to allow flexibility in siting.

4.1.51 Three permissive paths were added to Lime Down A, which can be seen on **ES Volume 2, Figure 3-4: Landscape and Ecology Mitigation Plan [EN010168/APP/6.2]** and as set out in the **Outline LEMP [EN010168/APP/7.18].** These include:

- Permissive path for pedestrians, equestrians, and cyclists which connects Bridleway SHER16 and the public highway network at its western and eastern extents, respectively. The permissive path is approximately 0.4 km in length and runs in a southwest-northeast direction along the northern and western boundaries of Fields A3 and A4;

- Permissive path for pedestrians, equestrians and cyclists which connects Bridleway SHER16 and the public highway network at its southern and northern extents, respectively. The permissive path is approximately 1.1 km in length and runs in a north-south direction along the eastern and northern boundaries of Fields A6 and A9; and
- Permissive path for pedestrians, equestrians and cyclists which connects to Bridleway SHER14 and the public highway network at its northern and southern extents, respectively, as well as crossing Footpath SHER15 in Field A11. The permissive path is approximately 0.8 km in length and runs in a north-south direction along the western and northern boundaries of Fields A11 and A12.

4.1.52 The Order Limits have also increased by 0.69 ha in the area shown in blue on **Figure 4-21**, which is located between Lime Down A and Lime Down C, to provide a wider area within which cables will be laid to avoid constraints.

Figure 4-20 Changes to Lime Down A since statutory consultation

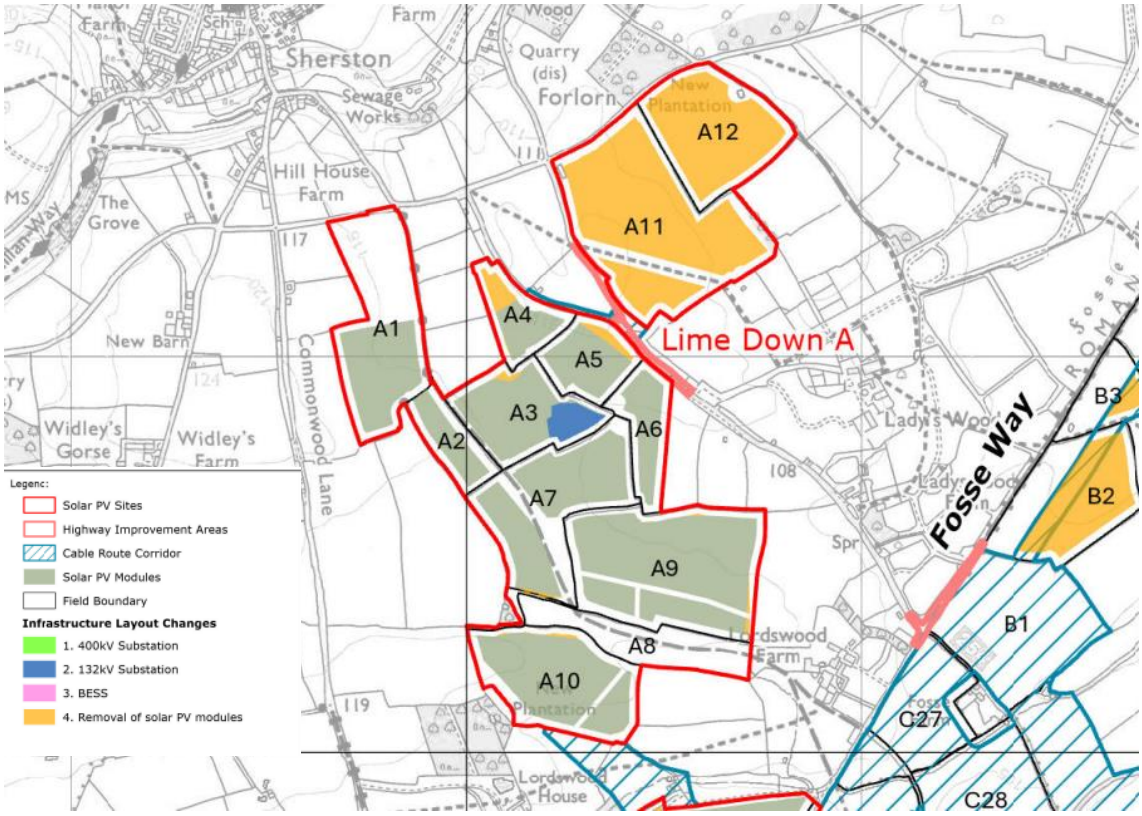


Figure 4-21 Expansion and reduction of the Order Limits since statutory consultation – Lime Down A

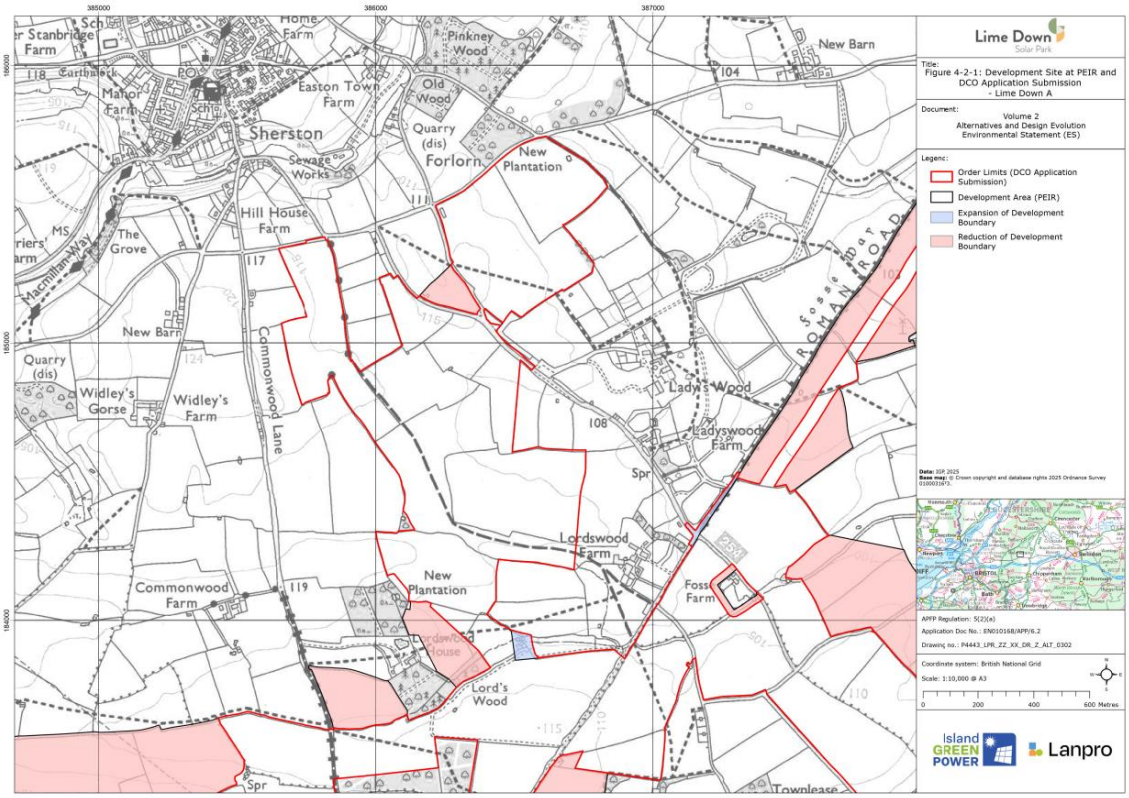


Table 4-5 Summary of changes proposed at Lime Down A following statutory consultation

	Removal of solar panels in fields A11 and A12.	Removal of solar panels from field A4 to provide an increased buffer.	Provision of permissive paths	Increased area for 132kV substation
Design Principle 1 - The design of the Scheme will be 'Landscape Led' and give due weight to the intrinsic character and beauty of the surrounding countryside.	The removal of panels aligns with the landscape led approach of the Scheme.	The removal of panels aligns with the landscape led approach of the Scheme.		
Design Principle 2 - Adherence to the mitigation hierarchy to reduce impacts and control any adverse effects on the environment throughout the lifecycle of the Scheme from construction through to operation and maintenance and decommissioning	The removal of solar panels reduces potential impacts on the landscape.	The removal of solar panels reduces potential impacts on the landscape and on a residential receptor. The increased buffer will minimise amenity impacts to the residential receptor.		
Design Principle 4 - The Scheme design will retain a degree of flexibility to enable it to adapt over time, be functional and fit				The increased area for the substation allows more flexibility in siting so it can adapt over time, be functional and

	Removal of solar panels in fields A11 and A12.	Removal of solar panels from field A4 to provide an increased buffer.	Provision of permissive paths	Increased area for 132kV substation
for purpose, and respond to innovative and new technologies as well as building resilience to climate change.				fit for purpose, and respond to innovative and new technologies.
Design Principle 5 - The Scheme will be carefully designed to minimise where practicable impacts on amenity from air quality, traffic and noise effects and safeguard the health and safety of local residents by securing suitable control measures during construction, operation and maintenance and decommissioning of the Scheme.		The increased buffer will minimise amenity impacts to the residential receptor.		
Design Principle 9 - The Scheme will seek to minimise the effects of the development on Public			The three permissive paths proposed provide opportunities to improve the local	

	Removal of solar panels in fields A11 and A12.	Removal of solar panels from field A4 to provide an increased buffer.	Provision of permissive paths	Increased area for 132kV substation
Rights of Way by incorporating measures to maintain, and where practicable, explore opportunities to improve the local footpath network.			footpath network and increase connectivity.	

Lime Down B

4.1.53 The refinement of the Order Limits in Lime Down B included removing Solar PV Panels from field numbers B2, B3 and B4 (shown as orange on **Figure 4-22**), as well as removing part of these fields from the Order Limits, along with field B5 resulting in a reduction in the Order Limits. These changes were the result of further consideration of views to the nearby Fosse Way footpath. As a result of these changes, the construction compound was moved to field B1. **Figure 4-22** shows the changes, and **Table 4-6** sets out the relevant Design Principles.

4.1.54 As shown on **ES Volume 2, Figure 3-4: Landscape and Ecology Mitigation Plan [EN010168/APP/6.2]** and as set out in the **Outline LEMP [EN010168/APP/7.18],** a permissive path for pedestrians which connects the public highway network of the Fosse Way (with onward connection to Byways SHER37 and EGRE1 and Footpath SHER11) was also added to the Scheme, to the existing highway network of Honey Lane (with onward connection to Bridleway NORT11) at its western and eastern extents, respectively, as well as crossing Footpath NORT1 within Field B11. The permissive path is approximately 2.9 km in length and runs in an east-west direction along the boundaries of Fields B6, B7, B8, B9, B11 and B12.

4.1.55 The Order Limits were also increased by 0.12 ha in the area shown in blue on **Figure 4-23** on the road north of Norton within Lime Down B, to provide a wider area within which cables will be laid to avoid constraints. The Order Limits were also increased by 0.55 ha along the Fosse Way, to accommodate the potential for temporary minor junction widening, temporary removal of street furniture and vegetation removal, and allow an abnormal load vehicle to turn at the corner and provide sufficient visibility for vehicles to safely access the Site.

Figure 4-22 Changes to Lime Down B since statutory consultation

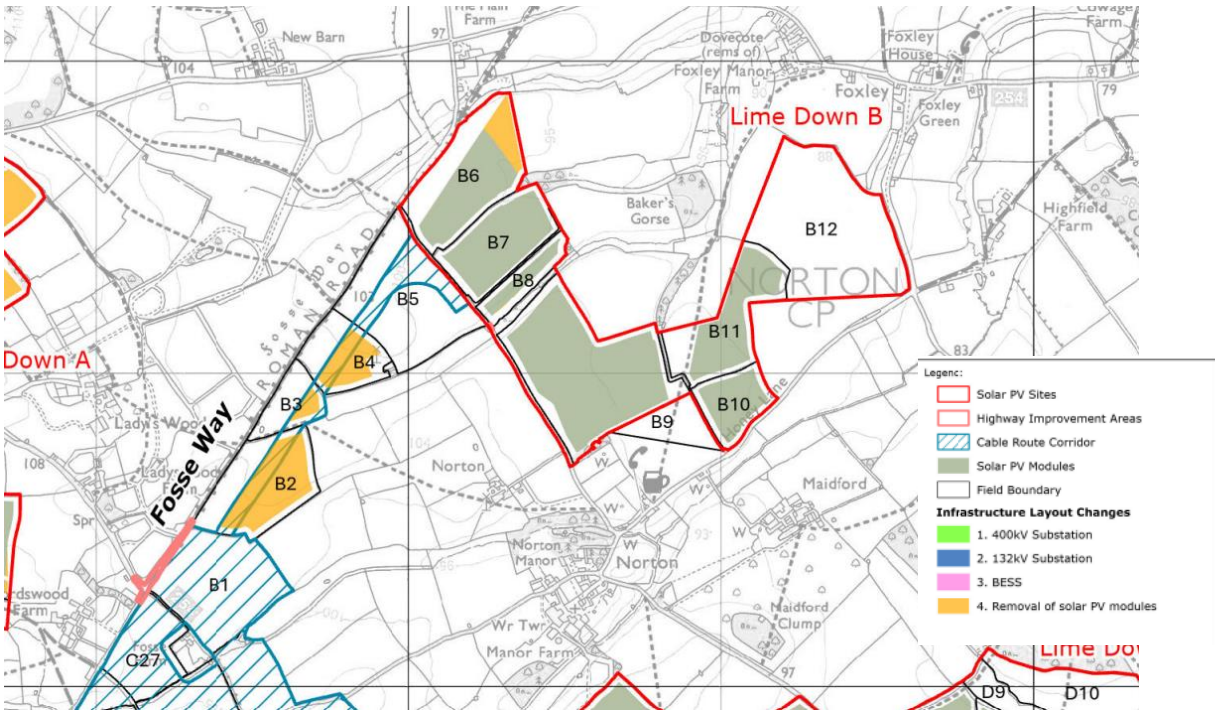


Figure 4-23 Expansion and reduction of the Order Limits since statutory consultation – Lime Down B

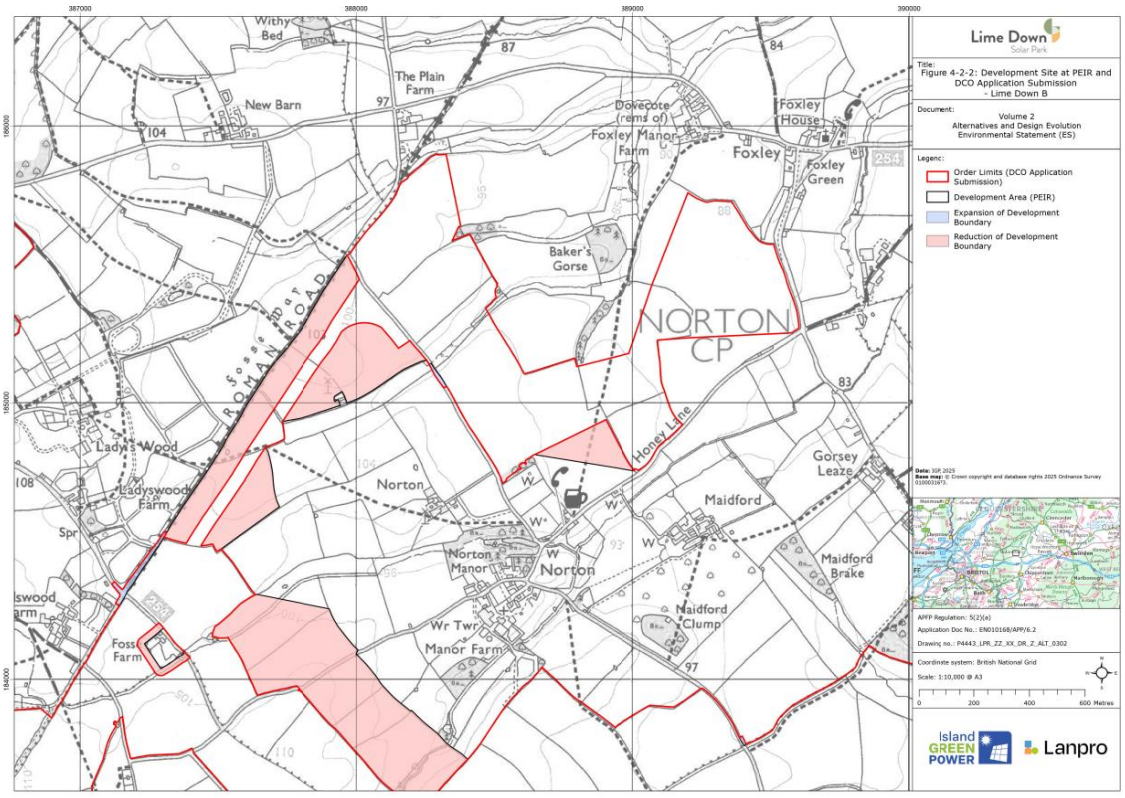


Table 4-6 Changes proposed at Lime Down B following statutory consultation

	Removal of solar panels from B2, B3 and B4	Removal of field B5 and parts of fields B2, B3 and B4 from the Order Limits	Provision of permissive path
Design Principle 1 - The design of the Scheme will be 'Landscape Led' and give due weight to the intrinsic character and beauty of the surrounding countryside.	The removal of panels aligns with the landscape led approach of the Scheme, minimising impact on views.	The removal of the fields aligns with the landscape led approach of the Scheme.	
Design Principle 2 - Adherence to the mitigation hierarchy to reduce impacts and control any adverse effects on the environment throughout the lifecycle of the Scheme from construction through to operation and maintenance and decommissioning	The removal of solar panels reduces potential impacts on the landscape.	The removal of solar panels reduces potential impacts on the landscape.	
Design Principle 7 - The design of the Scheme will be sensitive to above and below ground heritage assets and their setting, by locating infrastructure at a suitable distance and through appropriate landscape screening.	The removal of panels minimises the impact to the heritage features of the Fosse Way.	The removal of the fields will minimise impacts to the Fosse Way.	
Design Principle 9 - The Scheme will seek to minimise the effects of the development on Public Rights of Way by incorporating measures to maintain, and	The removal of panels minimises the impact on users of the Fosse Way PRoW.	The removal of the fields will minimise impacts to the users of the Fosse Way.	The permissive path proposed provide opportunities to improve the local footpath

	Removal of solar panels from B2, B3 and B4	Removal of field B5 and parts of fields B2, B3 and B4 from the Order Limits	Provision of permissive path
where practicable, explore opportunities to improve the local footpath network.			network and connectivity.

Lime Down C

4.1.56 A number of design changes were made to the layout of Lime Down C following statutory consultation, in recognition of Design Principle 1 and in response to feedback from the CNL Board, statutory consultation and the findings of the EIA assessment, as shown in orange on **Figure 4-24** and as set out in **Table 4-7**. These comprise:

- Removal of field numbers C2, C3, and C4 from the Order Limits to protect the CNL and its setting (shown in orange on **Figure 4-24**). The changes were made following feedback from the CNL Board regarding the relationship between the fields and the setting of the CNL, in particular given the higher topography of the fields from a nearby footpath and the clear view over the fields into the CNL towards St Gile's Church in Alderton, and to ensure accordance with the Scheme's Design Principles, in particular the 'landscape led' approach adopted;
- Solar PV Panels were removed from field C6 to protect the CNL and its setting, together with heritage considerations. However, this field was retained within the Order Limits to allow areas for mitigation and enhancement close to the CNL, providing an opportunity to seek to further the purposes of the CNL in line with NPS EN-1;
- Removal of Solar PV Panels from field C15 close to Pig Lane due to statutory consultation feedback identifying residential receptors; and
- Removal of field C20 from the Order Limits due to the presence of possible heritage assets.

4.1.57 Two permissive paths were also added to the Scheme, as shown on **ES Volume 2, Figure 3-4: Landscape and Ecology Mitigation Plan [EN010168/APP/6.2]** and as set out in the **Outline LEMP [EN010168/APP/7.18].** These include:

- Permissive path for pedestrians, equestrians and cyclists which connects the public highway near Alderton to Byway LUCK57 at its western and eastern extents, respectively. The permissive path is approximately 1.9 km in length and runs in an east-west direction along the northern boundaries of Fields C6, C7, C33, C31 and C36; and
- Permissive path for pedestrians, equestrians and cyclists which connects Footpath SHER18 and Byway SHER 35 to the public highway network at its eastern and western extents, respectively. The permissive path is approximately 1.1 km in length and runs in an east-west direction along the northern and eastern boundary of Field C22.

4.1.58 As well as the reduction of the Order Limits in and around Lime Down C, the Order Limits were increased by 0.18 ha along the Fosse Way to accommodate the potential for areas of vegetation removal along the highway, ensuring there is sufficient visibility for vehicles to safely access the Site. The Order Limits were also increased by 0.03 ha to the east of Pig Lane, to ensure there is enough space for an internal access track. These changes can be seen in **Figure 4-25**.

Figure 4-24 Changes to Lime Down C since statutory consultation

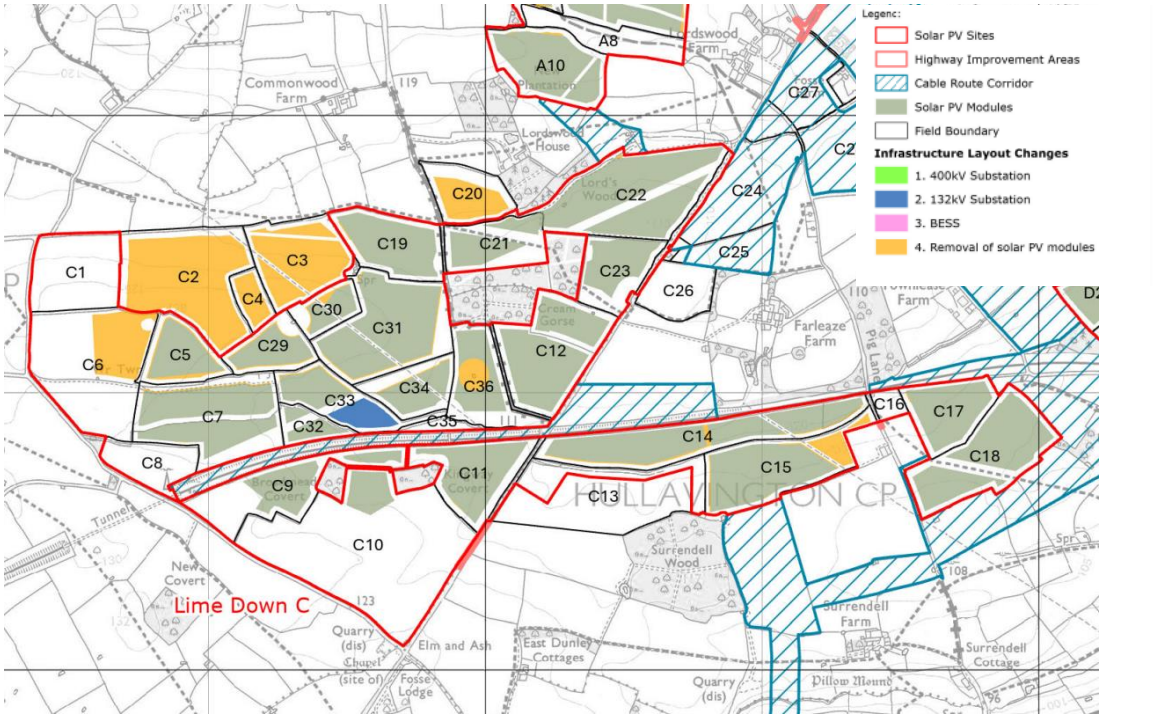


Figure 4-25 Expansion and reduction of the Order Limits since statutory consultation – Lime Down C

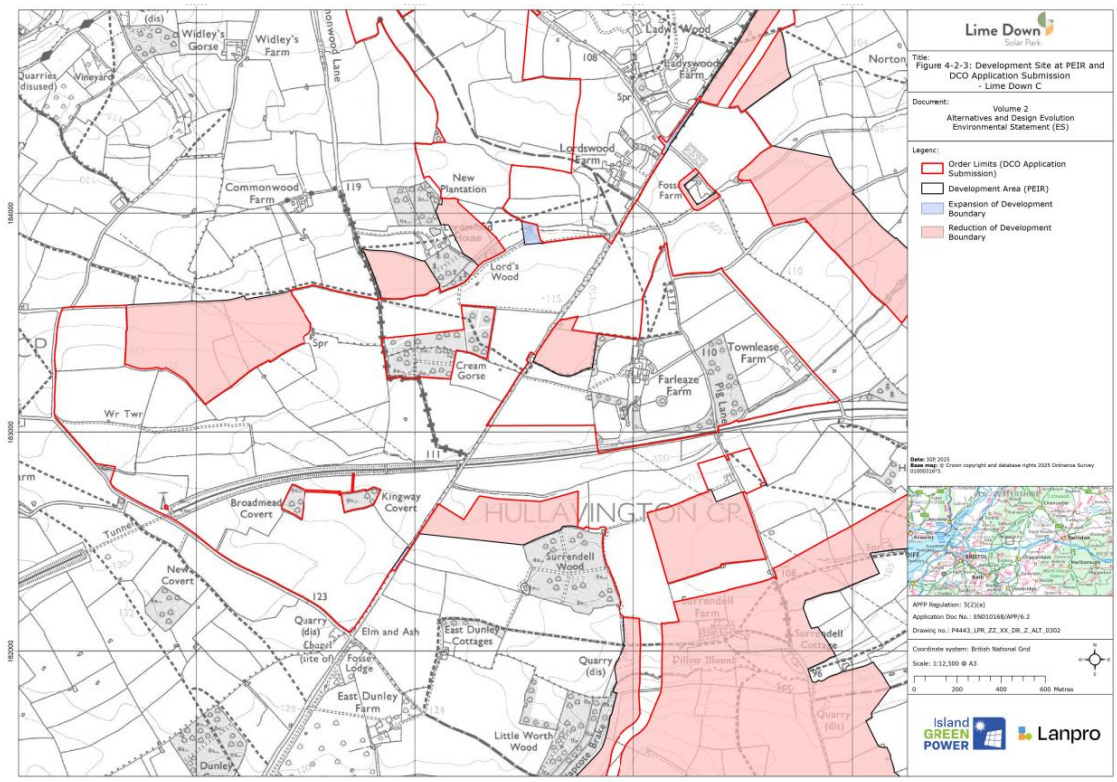


Table 4-7 Changes proposed at Lime Down C following statutory consultation

	Removal of field C2, C3 and C4 from the Order Limits	Removal of solar panels from field C6 and retention for enhancement	Removal of solar panels in field C15	Removal of field C20 from the Order Limits	Provision of permissive paths
Design Principle 1 - The design of the Scheme will be 'Landscape Led' and give due weight to the intrinsic character and beauty of the surrounding countryside.	The removal of the fields aligns with the landscape led approach of the Scheme and will protect the setting of the CNL.	The removal of the fields aligns with the landscape led approach of the Scheme.	The removal of the field aligns with the landscape led approach of the Scheme.	The removal of the field aligns with the landscape led approach of the Scheme.	
Design Principle 2 - Adherence to the mitigation hierarchy to reduce impacts and control any adverse effects on the environment throughout the lifecycle of the Scheme from construction through to operation and maintenance and decommissioning	The removal of solar panels reduces potential impacts on the landscape and heritage asset.	The removal of solar panels reduces potential impacts on the landscape and heritage assets.	The removal of solar panels reduces potential impacts on a residential receptor.	The removal of solar panels reduces potential impacts on the heritage assets.	
Design Principle 3 - The Scheme will deliver a minimum 10% net gain for biodiversity through		Enhancement measures on field C6 will			

	Removal of field C2, C3 and C4 from the Order Limits	Removal of solar panels from field C6 and retention for enhancement	Removal of solar panels in field C15	Removal of field C20 from the Order Limits	Provision of permissive paths
strategic habitat creation and enhancement measures.		increase the biodiversity net gain achieved on site.			
Design Principle 5 - The Scheme will be carefully designed to minimise where practicable impacts on amenity from air quality, traffic and noise effects and safeguard the health and safety of local residents by securing suitable control measures during construction, operation and maintenance and decommissioning of the Scheme.			Removal of the panels will minimise impacts to a residential receptor.		
Design Principle 7 - The design of the Scheme will be sensitive to above and below ground heritage assets and their setting, by locating infrastructure at a suitable distance and through appropriate landscape screening.	The removal of the fields minimises impacts to St Giles Church in Alderton.	Removal of solar panels will minimise impacts on heritage assets.		Removal of this field will minimise impacts on heritage assets.	

	Removal of field C2, C3 and C4 from the Order Limits	Removal of solar panels from field C6 and retention for enhancement	Removal of solar panels in field C15	Removal of field C20 from the Order Limits	Provision of permissive paths
Design Principle 9 - The Scheme will seek to minimise the effects of the development on Public Rights of Way by incorporating measures to maintain, and where practicable, explore opportunities to improve the local footpath network.					The permissive path proposed provide opportunities to improve the local footpath network.

Lime Down D

4.1.59 Small areas of Solar PV Panels were removed from some field parcels within Lime Down D, to provide further buffers from sensitive receptors such as PRoW, watercourses and Bradfield Manor, a Grade I listed building, as shown in orange in **Figure 4-26** and as set out in **Table 4-8.**

4.1.60 Two permissive paths were also added to the Scheme at Lime Down D, as shown on **ES Volume 2, Figure 3-4: Landscape and Ecology Mitigation Plan [EN010168/APP/6.2]** and as set out in the **Outline LEMP [EN010168/APP/7.18].** These include:

- Permissive path for pedestrians which connects Footpath HULL1 to Footpath HULL2 at its eastern and western extents, respectively. The permissive path is approximately 0.4 km in length and runs in a southwest-northeast direction along the northern boundary of Field D4;
- Permissive path for pedestrians which connects Footpath HULL 2 to Footpath HULL6 at its eastern and western extents, respectively, as well as crossing Footpaths HULL4 and HULL5, and connecting to MALW50. The permissive path is approximately 1.3 km in length and runs in an east-west direction along the northern boundary of Fields D9 and D12; and
- Permissive path for pedestrians which connects to a northern and southern section of Footpath HULL6. The permissive path is approximately 0.4 km in length and runs in a north-south direction along the western boundary of Field D13.

4.1.61 In addition to the reduction of the Order Limits in and around Lime Down as a result of the Cable Route Corridor refinement, the Order Limits have also increased by 0.04 ha at Bradfield Cottages, to accommodate constructing a site access to ensure there is sufficient space for vehicles to safety access the site, as shown on **Figure 4-27.**

Figure 4-26 Changes to Lime Down D since statutory consultation

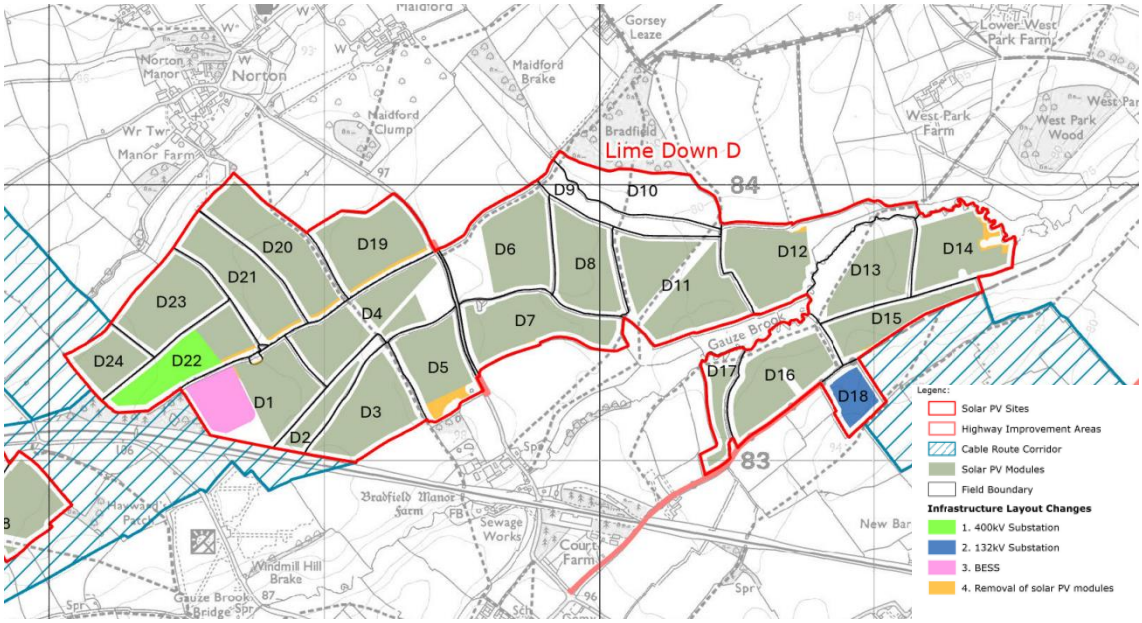


Figure 4-27 Expansion and reduction of the Order Limits since statutory consultation – Lime Down D

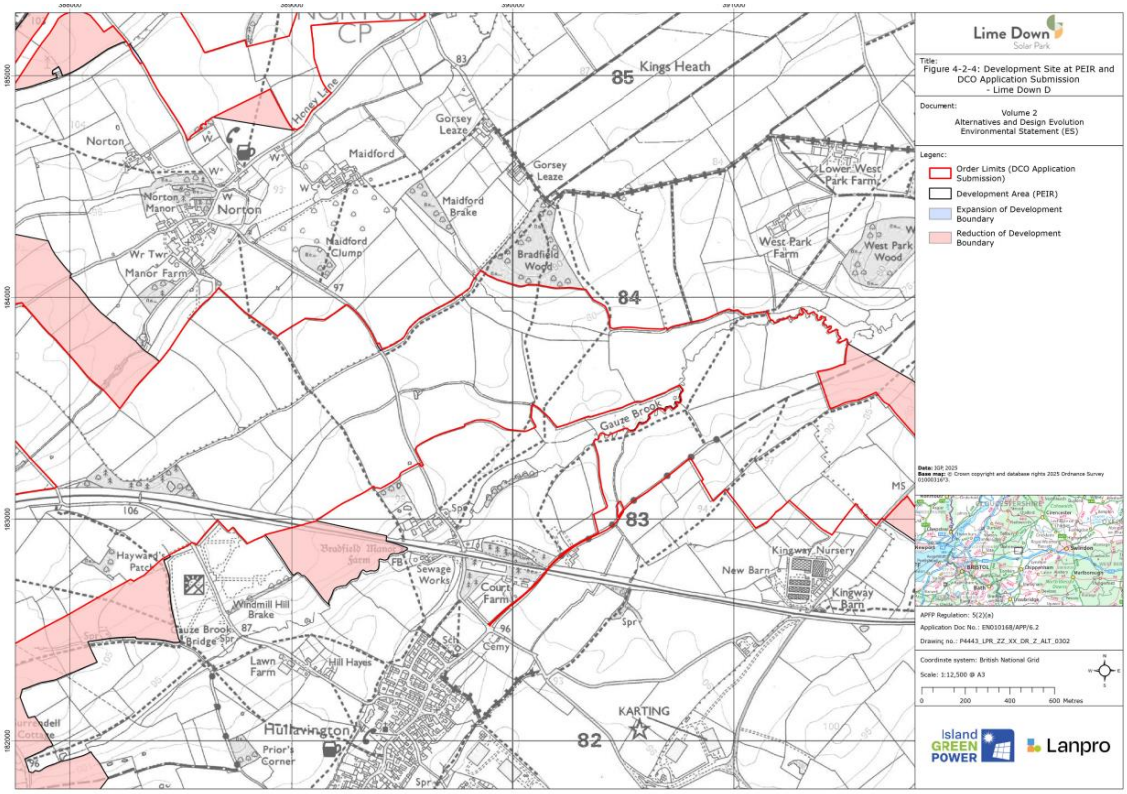


Table 4-8 Changes proposed at Lime Down D following statutory consultation

	Removal of solar panels from some field parcels	Provision of permissive paths
Design Principle 2 - Adherence to the mitigation hierarchy to reduce impacts and control any adverse effects on the environment throughout the lifecycle of the Scheme from construction through to operation and maintenance and decommissioning	The removal of solar panels reduced impacts on sensitive receptors such as PRoW, watercourses and Bradfield Manor.	
Design Principle 5 - The Scheme will be carefully designed to minimise where practicable impacts on amenity from air quality, traffic and noise effects and safeguard the health and safety of local residents by securing suitable control measures during construction, operation and maintenance and decommissioning of the Scheme.	Removal of the solar panels will minimise impacts on sensitive receptors.	
Design Principle 7 - The design of the Scheme will be sensitive to above and below ground heritage assets and their setting, by locating infrastructure at a suitable distance and through appropriate landscape screening.	The removal of the solar panels minimises impacts to Bradfield Manor.	
Design Principle 9 - The Scheme will seek to minimise the effects of the development on Public Rights of Way by incorporating measures to maintain, and where practicable, explore	The removal of the solar panels will minimise impacts to a ProW.	The permissive path proposed provide opportunities to improve the local footpath network.

	Removal of solar panels from some field parcels	Provision of permissive paths
opportunities to improve the local footpath network.		

Lime Down E

4.1.62 At Lime Down E, the Applicant made the following design changes in response to feedback relating to landscape and ecology as shown in orange on **Figure 4-28** and as set out in **Table 4-9:**

- Removal of field E16 due to landscape and visibility matters (being on higher ground), and removal of field E8 (previously intended to be used for ecological mitigation) from the Order Limits following further field work which identified it was not suitable for ecological mitigation.
- Removal of Solar PV Panels from fields E7, E9 and E10 following further considerations relating to visibility of the panels, the gradient of the land, and in order to protect existing vegetation.
- Other refinements including the removal of small areas of Solar PV Panels to allow for environmental buffers and environmental mitigation and enhancement as a result of further surveys and consultation feedback.

4.1.63 Two permissive paths were also added to the Scheme at Lime Down E, as shown on **ES Volume 2, Figure 3-4: Landscape and Ecology Mitigation Plan [EN010168/APP/6.2]** and as set out in the **Outline LEMP [EN010168/APP/7.18].** These include:

- Permissive path for pedestrians, equestrians and cyclists which connects Bridleway MALW59 and Bridleway MALW61 to its eastern and western extents, respectively, as well as crossing Footpath MALW62. The permissive path is approximately 1 km in length and runs in a northwest-southeast direction along the northern and eastern boundaries of Fields E19, E20, E22 and E26.
- Permissive path for pedestrians which connects Bridleway MALW59 to Footpath SSTQ5 to is northern and southern extents, respectively. The permissive path is approximately 0.8 km in length and runs in a north-south direction along the western boundaries of Fields E19, E20, E21 and E26.

4.1.64 In addition to the reduction of the Order Limits in and around Lime Down E, the Order Limits have increased by 0.25 ha southwest of Rodbourne,

and 0.09 ha south of Rodbourne to ensure there is enough space for an internal access route, allowing utilisation of an existing access track. The access track to the southwest of Rodbourne has been carefully located to avoid impacts on any ancient or veteran trees associated with Bincombe Wood, as set out in more detail in **ES Volume 1, Chapter 10: Arboriculture [EN010168/APP/6.1].** These changes are shown in **Figure 4-29.**

Figure 4-28 Changes to Lime Down E since statutory consultation

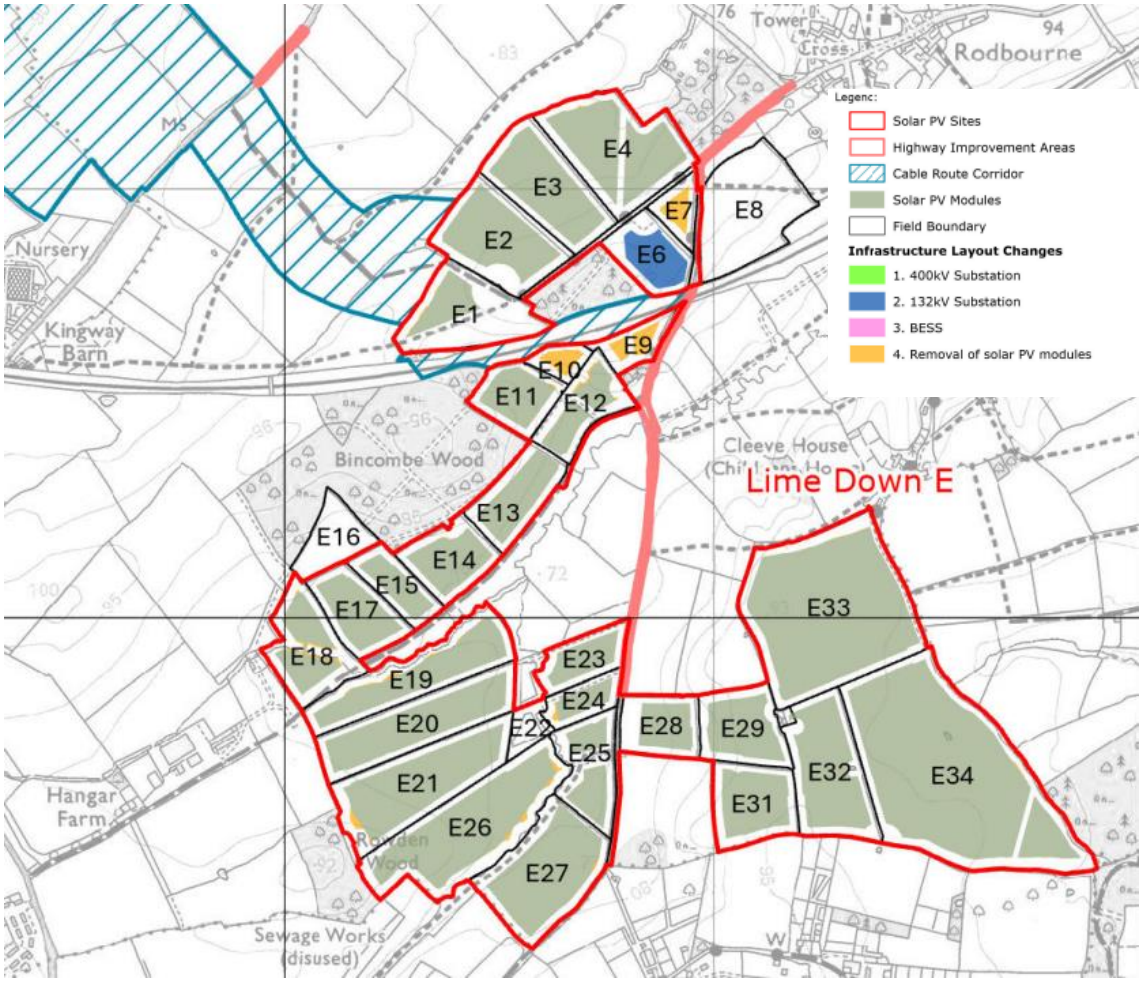


Figure 4-29 Expansion and reduction of the Order Limits since statutory consultation – Lime Down E

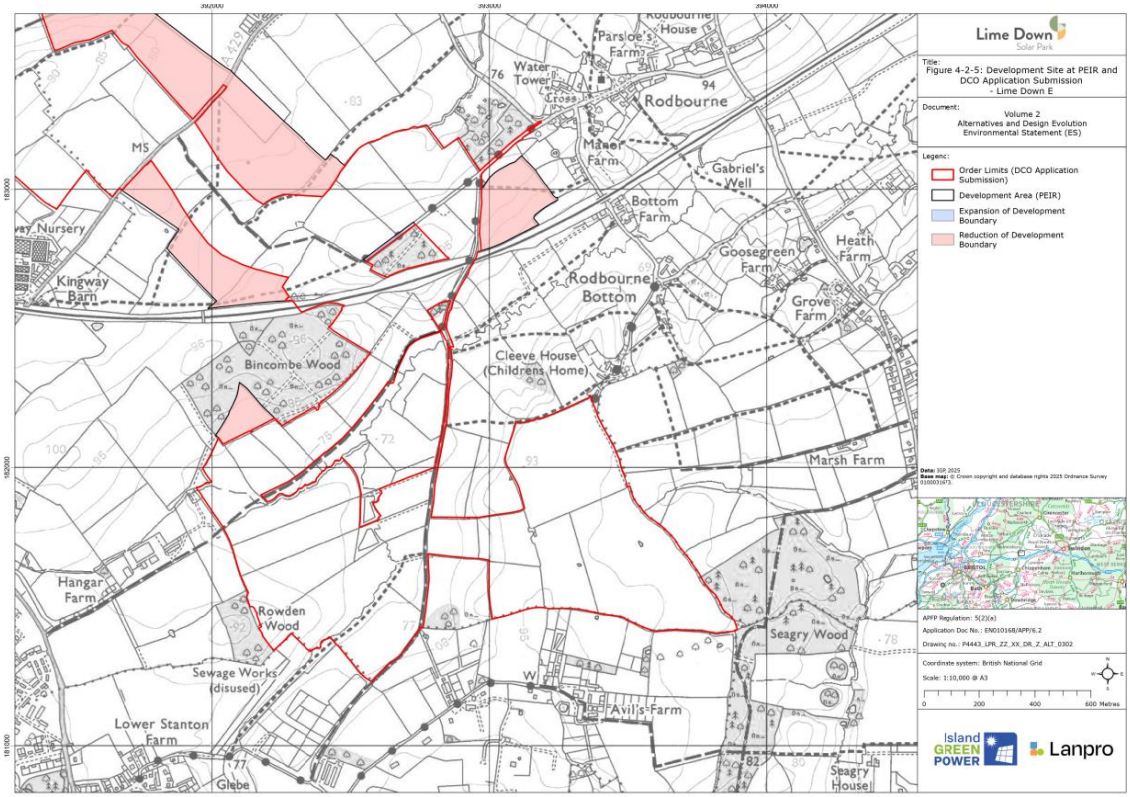


Table 4-9 Changes proposed at Lime Down E following statutory consultation

	Removal of fields E16 and E8 from the Order Limits	Removal of solar panels from E7, E8 and E10	Removal of small areas of solar panels across Lime Down E	Provision of permissive paths
Design Principle 1 - The design of the Scheme will be 'Landscape Led' and give due weight to the intrinsic character and beauty of the surrounding countryside.	The removal of the fields aligns with the landscape led approach of the Scheme.	The removal of the solar panels aligns with the landscape led approach of the Scheme.	The removal of the solar panels aligns with the landscape led approach of the Scheme.	
Design Principle 2 - Adherence to the mitigation hierarchy to reduce impacts and control any adverse effects on the environment throughout the lifecycle of the Scheme from construction through to operation and maintenance and decommissioning.	The removal of the fields demonstrates application of the mitigation hierarchy.	The removal of the solar panels demonstrates application of the mitigation hierarchy.	The removal of the solar panels demonstrates application of the mitigation hierarchy.	The permissive path proposed provide opportunities to improve the local footpath network.

Refinements to the Cable Route Corridor

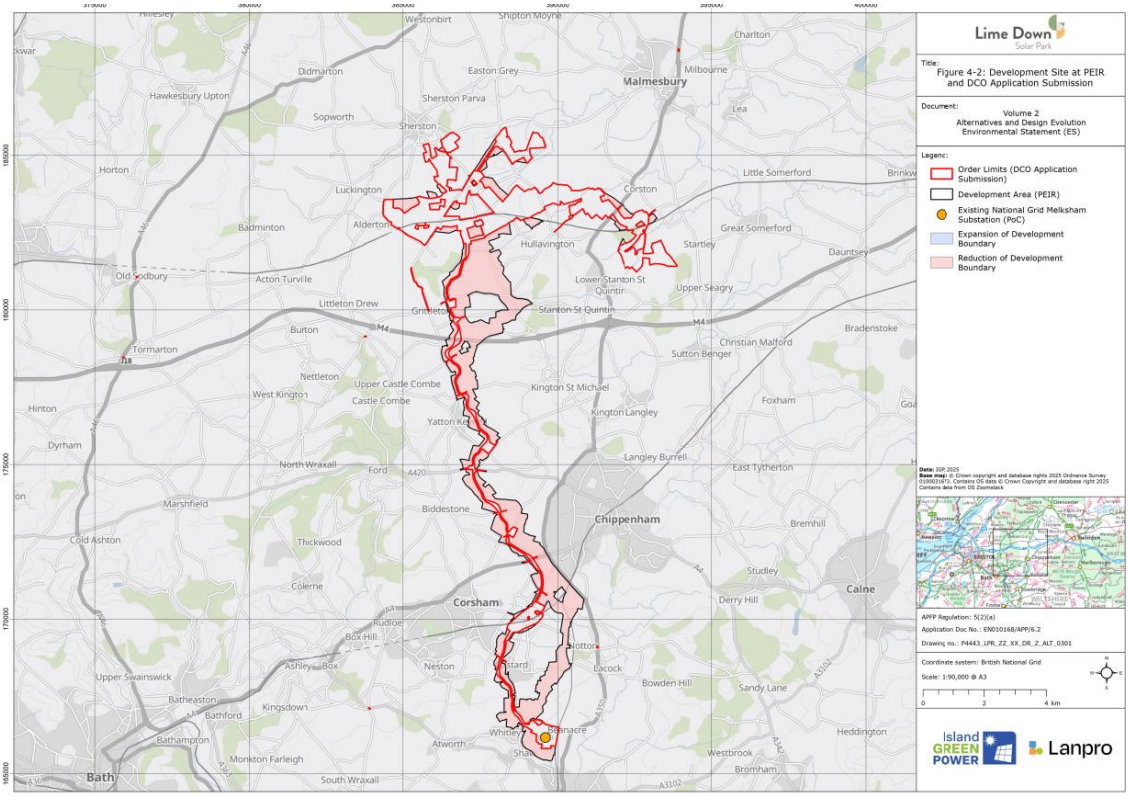
4.1.65 In addition to the above, the Cable Route Corridor was further refined following the statutory consultation, to remove land not required for the Scheme. As set out in the **Consultation Report [EN010168/APP/5.1]** a summer newsletter was published on the project website and issued to over 14,000 addresses located in the Core Consultation Zone (as set out in the Statement of Community Consultation) in June 2025 which provided further information on the route of the refined Cable Route Corridor.

4.1.66 In addition to the criteria adopted to select the Cable Route Corridor presented at the statutory consultation stage (listed in **Paragraph 4.1.23** above), the alignment of the Cable Route Corridor was refined further with consideration of the Design Principles, and potential impacts on factors such as PRoW, residential receptors, ponds, watercourses and vegetation, trees and hedgerows, flood risk and drainage, heritage assets, access, soil disturbance and ground contamination.

4.1.67 The refined Cable Route Corridor follows a south westerly route and is approximately 22 km in length with a typical width of 50 m. In some locations the width of the Cable Route corridor is up to 600 m to account for road and rail crossings.

4.1.68 **Figure 4-30** shows the reduction and expansion of the Order Limits for the Cable Route Corridor following statutory consultation. The areas in red are the areas that were removed from the Order Limits.

Figure 4-30 Expansion and reduction of the Order Limits since statutory consultation – Cable Route Corridor



4.1.69 As shown in **Figure 4-30** additional areas were also added to the Order Limits along or adjacent to the Cable Route Corridor, as a result of further design development. These include:

- Increase of 0.41 ha along Westlands Lane, Melksham, to accommodate space for the routing of cables, allowing optimal locating of cables on the approach to the Existing National Grid Melksham Substation;
- Increase of 0.21 ha on the A429/B4014 roundabout to accommodate minor junction widening and temporary removal of street furniture to allow an abnormal load vehicle to cross the roundabout;
- Increase of 0.09 ha on the A46 Bath Road/B4040 junction to accommodate temporary minor junction widening, temporary removal of street furniture and vegetation removal, and will allow abnormal load vehicles to turn at the junction;
- Increase of 0.06 ha on the A46 Bath Road/Acton Turville Road junction to accommodate temporary minor road widening and temporary removal of street furniture, allowing an abnormal load vehicle to turn at the junction;

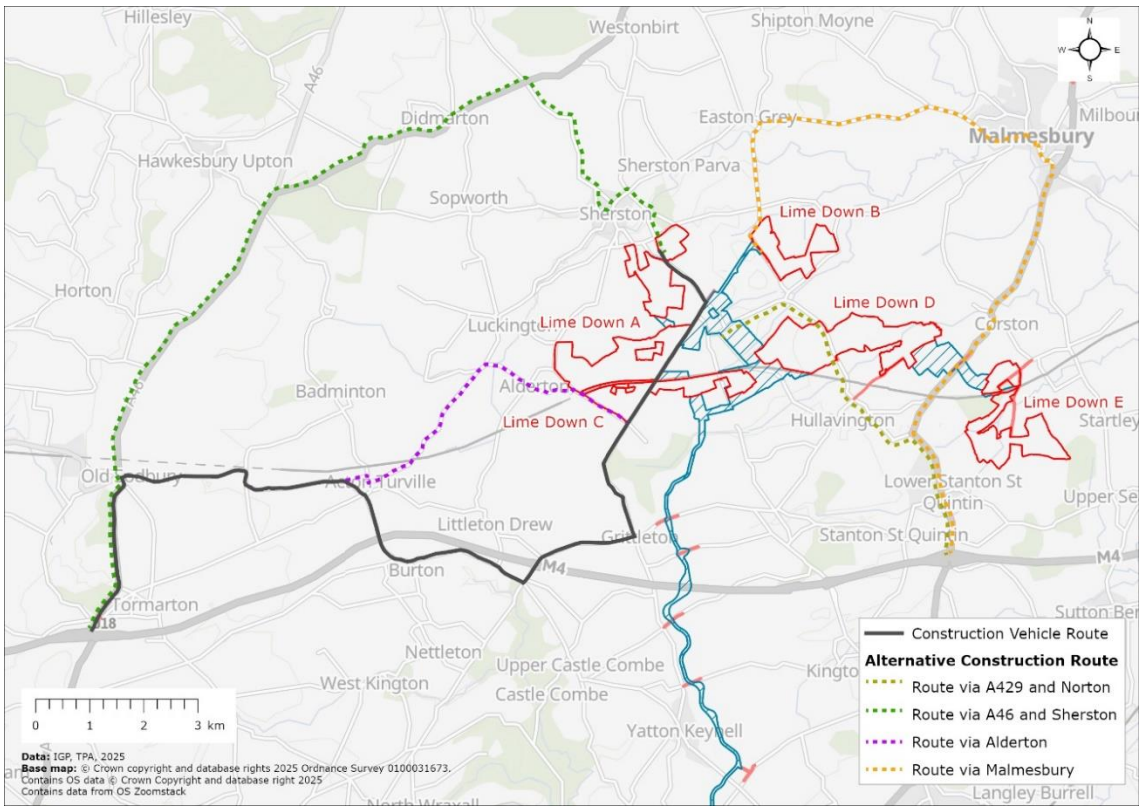
- Increase of 0.07 ha at the B4093/The Gibbs crossroads to accommodate temporary minor junction widening and vegetation removal, allowing an abnormal load vehicle to turn at the junction;
- Increase of 0.10 ha at the A365/B3109 junction to accommodate temporary removal of street furniture allowing an abnormal load vehicle to turn at the junction; and
- Increase of 0.15 ha at the A350/Corsham Road junction to accommodate temporary removal of street furniture allowing an abnormal load vehicle to turn at the junction.

4.1.70 Four of these Highway Improvement Areas are proposed in the CNL, where works are required to the current roads and junctions to facilitate construction traffic. These are:

- Junction works to the east of Old Sodbury at the junction between the B4040 and the A46;
- Junction works at the junction between Acton Turville Road and the A46;
- Junction works in The Gibb at the junction with the B4039 adjacent to the Salutation Inn; and
- Improvements to a section of narrow road near Grittleton.

4.1.71 The Applicant considered alternative construction routes to avoid the highway improvement works within the CNL, as shown on **Figure 4-31.**

Figure 4-31 Alternative Construction Routes to avoid the CNL



4.1.72 However, these were discounted for the following reasons:

- The route via Alderton (shown in purple) has been discounted on the basis that it is narrow in places and not suitable for construction traffic. Further, this route still passes through the CNL, so offers no material benefits over the proposed route;
- The route via the A46 and Sherston (shown in dark green) is unsuitable for HGVs as it utilises the road through Sherston village. It is also still within the CNL. Therefore, it offers no material benefits over the proposed route;
- The route via the A429 and Norton (shown in light green) avoids the CNL but is very narrow and walled in places which would make road widening unsuitable. In its current state, the road could not support HGVs and therefore this is not a viable option; and
- The route travelling north through Malmesbury (shown in orange) avoids the CNL but is unsuitable because it would require HGVs to be routed through Malmesbury town centre. The town centre, which contains narrow streets bordered by houses and a higher incidence of on street parking, has a 7.5 tonne weight limit and therefore would not be suitable for construction traffic. It has therefore been

discounted as it is considered materially worse than the proposed route.

4.1.73 On that basis, the proposed construction route through the CNL is considered the least constrained in terms of both meeting the needs of the Scheme and minimising environmental effects and is preferred for the Scheme. The preferred route has been presented to Wiltshire Council, which raised no concerns subject to tracking of the unclassified road widths identified in the scoping response, which has been undertaken and presented in the **ES Volume 3, Appendix 13-1 Transport Assessment [EN010168/APP/6.3]**.

4.1.74 In addition to the above changes, the following design considerations were made in relation to the Cable Route Corridor:

- Temporary construction compounds would be located along the Cable Route Corridor. These have been located to minimise interaction with constraints and to allow construction vehicles to turn off the public highway and park safely. These are presented in **ES Volume 2, Figure 3-2: Key Construction Phase Features [EN010168/APP.6.2]**; and
- Where necessary to avoid significant environmental effects as a result of open cut trenching within the Cable Route Corridor, Avoidance Areas have been established. At each Avoidance Area the cables will be installed through Horizontal Directional Drilling (HDD). The Avoidance Areas are presented in **ES Volume 2, Figure 3-2: Key Construction Phase Features [EN010168/APP.6.2]**.

4.1.75 The resulting development area for the Scheme (including the Cable Route Corridor) for the DCO submission is as follows has been further refined and reduced to 749.3 ha as set out below:

Table 4-10 DCO submission development area

Location	Area
Lime Down A	94.3 ha
Lime Down B	70 ha
Lime Down C	241 ha
Lime Down D	212.5 ha
Lime Down E	131.3 ha
Cable Route Corridor	463.2 ha
Total	**1,237 ha**

4.2 Positive Design Outcomes

4.2.1 This section summarises the positive design outcomes that the Scheme achieves, as set out in this DAD and the other assessments and documents that form part of the DCO Application, following the iterative evolution of the Scheme as set out in the above sections of this DAD.

4.2.2 These good design outcomes are assessed against the NSIPs: Advice on Good Design guidance including Annex A, and NPS EN-1, particularly paragraphs 4.7.2 and 4.7.3 which state that:

"4.7.2 Applying good design to energy projects should produce sustainable infrastructure sensitive to place, including impacts on heritage, efficient in the use of natural resources, including land-use, and energy used in their construction and operation, matched by an appearance that demonstrates good aesthetic as far as possible…"

"4.7.3 Good design is also a means by which many policy objectives in the NPSs can be met, for example the impact sections show how good design, in terms of siting and use of appropriate technologies, can help mitigate adverse impacts such as noise. Projects should look to use modern methods of construction and sustainable design practices such as use of sustainable timber and low carbon concrete. Where possible, projects should include the reuse of material."

4.2.3 These outcomes are summarised below.

Sustainable infrastructure sensitive to place

4.2.4 The Scheme includes the following design measures that make it sustainable and sensitive to place:

- The Scheme design integrates with the landscape, and where practicable, enhances the landscape and local green infrastructure network, to improve biodiversity and ecological connectivity across the Solar PV Sites;
- Enhancement measures will contribute to and strengthen the connectivity between a number of the Local Wildlife Sites located close to the Solar PV Sites and the local landscape, through the provision of new hedgerows, tree and woodland planting in the vicinity of the sites, and through the creation of areas of species rich grassland and scrub planting within the Solar PV Sites, which may provide ecological 'stepping stones' for various species within the local, largely arable landscape;
- The delivery of the Landscape Strategy set out in the **Outline LEMP [EN010168/APP/7.18]** which sets out the approach to habitat

creation and management will provide ecological enhancements, strengthen the green infrastructure within the local area, and to provide landscape and visual mitigation through screening of the Scheme. The **Outline LEMP [EN010168/APP/7.18]** draws upon the Draft Wiltshire Local Nature Recovery Strategy and sets out that the Scheme as designed will broadly contribute to these priorities. The significant tree and woodland planting proposed within the Solar PV Sites is outlined in the **Outline LEMP [EN010168/APP/7.18],** which will result in the creation of approximately 11.37 ha of new native broadleaved woodland within the Order Limits, as well as considerable levels of tree planting elsewhere within the Scheme. Once established, this level of woodland planting will result in a significant beneficial effect on the extent of woodland within the Order Limits, which would by extension contribute to the connectivity of woodland stands and proliferation of Green Infrastructure across the local landscape;

- The Scheme includes the creation of new non-vehicular permissive paths on each of the Solar PV Sites for the lifetime of the Scheme to provide pedestrians and riders improved accessibility to the countryside and improved connectivity of the wider PRoW network. The permissive paths will provide a beneficial impact on PRoW use for local users and visitors through mitigating adverse impacts on other PRoWs and providing alternative access routes to the use of the local highway network. These measures, when implemented, will enhance connectivity in the local area and may help to improve recreation in the immediate vicinity, secondarily benefitting local population health and wellbeing in the long-term;
- Through sensitive design, the Applicant has taken care to avoid, reduce and mitigate impacts on heritage assets and their setting, in accordance with the mitigation hierarchy through:
  - The removal of solar panels from fields close to heritage assets (such as close to Conservation Areas and various Listed Buildings);
  - The inclusion of offsets between the Scheme's infrastructure and heritage assets to act as heritage buffers;
  - Enhanced screening of existing hedgerows between the Scheme and identified heritage assets, such as between the Scheme and Rodbourne and between the Scheme and various Listed Buildings such as Norton Manor;
  - Creation of new tree belts, for instance between the Scheme and Bradfield Manor Farmhouse and Surrendell Farmhouse;

  - Routing construction traffic along routes to minimise impacts on conservation areas and various Listed Buildings such as Westlands Farmhouse; and
  - Measures for in-situ preservation of archaeological assets.

- The Scheme has been designed carefully to ensure it is resilient to flooding, including siting the most vulnerable elements in areas of lower flood risk, taking account of various climate change scenarios;
- The **Outline LEMP [EN010168/APP/7.18]** identifies opportunities to minimise climate change, by planting specific types of trees that are resistant to ash dieback;
- Sensitively locating infrastructure away from receptors to minimise noise and vibration impacts; and
- Provision of an access design that minimises where practicable impacts on amenity, including traffic impacts, demonstrating that transport impacts have been part of the overall Design Vision for the Scheme and have shaped its design evolution.

Efficient in the use of natural resources, including land-use, and energy used in construction and operation

4.2.5 The Scheme will deliver over 50 MW of renewable electricity through ground mounted solar PV panels, which is enough clean, affordable electricity to power around 144,000 homes per year for tracker panels and 148,000 homes per year for fixed panels. The Scheme would also include a battery energy storage system, which would provide an important balancing service for the grid, allowing electricity generated by the panels to be stored at times of low demand, then exported onto the system when demand increases.

4.2.6 The Scheme has minimised impacts on existing land uses as far as possible through its site selection initially, and then through the evolution of the design. The key positive outcomes relating to land use are:

- Improvements to soil health, quality and structure within the Solar PV Sites as a result of leaving the land undisturbed under long-term grassland during the lifetime of the scheme;
- Majority of the site (67%) comprising non BMV agricultural land, with only 29% being in Subgrade 3a BMV land and 4% in Grade 2 BMV land; and
- Exclusion of the Bath Green Belt from the site selection process.

4.2.7 In terms of the energy used in the construction and operation of the Scheme the total energy generated by the Scheme would be around 23.54TWh and 24.26TWh over the 60-year Scheme lifespan for tracker and fixed panels respectively. Over the Scheme's lifespan, it is estimated the Scheme will result in a net saving of 218,611 tCO2e if tracker panels are used or 253,839 tCO2e for fixed panels in comparison with a scenario whereby the Scheme does not come into effect and emissions from the grid in the baseline year of operation were used. As the Green House Gas (GHG) emissions from the Scheme in operation will offset emissions in a comparative scenario where energy generation may be from other sources with a higher carbon intensity, it is considered that the overall GHG impact of the Scheme is beneficial and significant. Further details are provided in **ES Volume 1, Chapter 7: Climate Change [EN010168/APP/6.1]**.

4.2.8 The Applicant has sought to minimise GHG emissions during construction and operation where possible, and measures for reducing GHG impacts are included in the **Outline CEMP [EN010168/APP/7.12]**, the **Outline Site Waste Management Plan (SWMP) [EN010168/APP/7.16]**, and the **Outline Operational Environmental Management Plan (OEMP) [EN010168/APP/7.13]** and include measures such as:

- Measures to reduce waste through reuse of materials, use of prefabricated products and segregation of waste at source to facilitate recycling;
- Reduction in vehicle emissions through good working practices (e.g. not allowing vehicles and plant to idle) and encouraging lower carbon forms of transport; and
- Nature based solutions such as substantial new hedgerow and tree planting, reinforcement planting at existing hedgerows and field boundaries, extensive grassland habitat creation and sympathetic management both within buffers and within the Solar PV Panels, as well as discrete, valuable habitat creation (e.g. ponds and meadows) in appropriate locations.

Appearance that demonstrates good aesthetic as far as possible

4.2.9 As demonstrated in **Sections 4**, **5** and above, the design of the Scheme is 'landscape led' and has been designed to integrate into the surrounding landscape, and enhance existing natural ecological and landscape features, as well as provide improvements in PRoW facilities, as set out in more detail in the **Outline LEMP [EN010168/APP/7.18]**

4.2.10 In addition, as set out in **Section 5.1** of this DAD the Scheme has been designed within a set of parameters that provide flexibility and ensure it can utilise the latest technology.

4.2.11 As a result, it can be concluded that the Scheme demonstrates good aesthetic as far as possible, taking into account that the nature of energy infrastructure development, that has to be fit for purpose and functional, will often limit the extent to which it can contribute to the enhancement of the quality of the area.

4.2.12 To summarise the above, the Scheme will result in sustainable infrastructure that is sensitive to place, by delivering a design that has followed the mitigation hierarchy to avoid and reduce impacts as far as possible, integrates with the landscape, provides ecological and landscape enhancements and improves recreational facilities in the area through permissive paths, while ensuring that the Scheme can provide urgently needed renewable and low carbon energy into the Existing National Grid Melksham Substation. This is evidenced by the iterative design evolution undertaken for the Scheme, based on the Design Vision and Design Principles, engagement with the local community and stakeholders and environmental surveys and assessments, which has resulted in a Scheme that provides numerous good design outcomes which comply with policy and guidance.

5 Co-ordinate

5.1 Refinement of design parameters

5.1.1 This section of the DAD sets out the iteration and refinement of choices that have been made in relation to the details and parameters of the Scheme. It also explains the process by which future post-consent decision making will be made.

5.1.2 As part of the development of the design for the DCO Application, continuous refinements were undertaken to refine choices for details and parameters.

5.1.3 It is necessary to have some flexibility built into the design of the Scheme when submitting the DCO Application so that the detailed design of the Scheme can be informed by technical considerations, post consent work, and take advantage of innovation in technology. This is of particular importance in order to maintain flexibility due to the rapid pace of change in solar PV and battery storage technology, whilst maintaining a robust and comprehensive assessment of potential effects.

5.1.4 The technical assessments undertaken for the EIA therefore assess an 'envelope' within which the works would take place (the Rochdale Envelope). As such, the DCO Application and EIA are based on maximum and, where relevant, minimum parameters. These parameters are considered in detail by technical authors as part of the EIA to ensure the realistic worst-case effects of the Scheme are assessed for each potential receptor. Further details of the Rochdale Envelope and EIA methodology are set out in **ES Volume 1, Chapter 6: EIA Methodology [EN010168/APP/6.1]**.

5.1.5 These design parameters include maximum and minimum heights, sizes and materials proposed for the infrastructure forming the Scheme and are set out in the **Design Principles and Parameters [EN010168/APP/7.4]**.

5.1.6 A number of design parameters such as solar design technologies have been considered against the environmental constraints and objectives of the Scheme throughout the design process. **Table 5-1** summarises the design parameters considered throughout the design process, and the decisions that were made. The full list of all design parameters for the Scheme are set out in the **Design Principles and Parameters [EN010168/APP/7.4]**.

Table 5-1 Refinement of design parameters

Element of the Scheme	Design parameter consideration
Solar PV technology	The Solar PV Panels chosen will be bifacial monocrystalline panels, comprising two layers of toughened, low reflectivity glass to ensure durability and reduce glare. Both east-west single axis tracking Solar PV Panels (Option A) and south facing fixed Solar PV Panels (Option B) are included within the parameters that have been assessed. East-west fixed Solar PV Panels were discounted by the Applicant early on in the process as not being suitable (because of the lower energy generation yield).
Solar PV Mounting Structures	Each Solar PV Panel would be mounted onto a metal rack fixed to the ground. The most common fixing method is the use of driven piles which avoid the need for foundations and avoid disturbance to the surrounding land surface (soils). Other options include concrete footings, ground screws and ballast (either concrete or rubber). The Scheme will use driven posts, which will be driven to a depth of 1.5 m to 4 m (depending on ground conditions), other than in areas where archaeological protection is required, where concrete feet or other non-ground penetrative techniques will be used to secure the Solar PV Mounting Structures.
Conversion Units	The exact size and arrangement of transformers, switchgear and inverters would be determined at a detailed design stage and a suitable area has been left for the flexibility of options. The maximum parameters (height, size and noise etc.) of the equipment are used for assessment purposes. The options are discussed in **ES Volume 1, Chapter 3: The Scheme [EN010168/APP/6.1]**.
Solar PV Panel height	The maximum height of the Solar PV Panels is dependent on the panel type utilised. For Option A (east-west single tracking Solar PV Panels), the Solar PV Panels would have a maximum height of 4.5 m AGL at maximum tilt (+/- 60 degrees). The maximum height when Solar PV Panels are horizontal would be 2.5 m AGL (0 degrees).

Element of the Scheme	Design parameter consideration
	For Option B (south facing fixed Solar PV Panels), the Solar PV Panels would have a maximum height of 3.5 m AGL.
Cabling technology	Underground cables will be used to connect the Solar PV Sites and to connect the Scheme to the Existing National Grid Melksham Substation. Connecting into existing overhead cables was discounted due to the current lines being constrained by existing connections. Installation of new overhead cables was discounted at an early stage to avoid likely significant landscape and visual effects associated with overhead cables. In identified archaeologically sensitive areas, cables will be installed to avoid or minimise disturbance below ground level.
BESS	Each BESS battery container will have a maximum height of 4.5 m (comprising 3.5 m BESS Containers and 1 m silencers). The Scheme is anticipated to include approximately 270 BESS Containers. The precise number of BESS Containers will depend upon the level of power capacity of energy storage that the Scheme will require. The BESS will include measures to both prevent, detect and control a fire should one occur, as set out in the **Outline Battery Safety Management Plan [EN010168/APP/7.21]**.
Substations	A 400 kV Substation and a 132 kV Substation are proposed as part of the Scheme. The maximum compound area for the 400 kV substation will be 4.25 ha. The maximum height of the 400 kV substation will be 13 m to the top of the busbars. The maximum area for the 132 kV substation is 0.9 ha. The maximum height to the top of the busbars will be 7 m.

5.1.7 The parameters set out in the **Design Principles and Parameters [EN010168/APP/7.4]** will inform the detailed design of the Scheme post consent.

5.1.8 The parameters are secured by Requirement 5 in the **Draft DCO [EN010168/APP/3.1]**, (Detailed design approval) which sets out that the development must be carried out in accordance with the **Design Principles and Parameters [EN010168/APP/7.4]**. This approach ensures that the impacts of the Scheme will not differ from those set out in the Environmental Statement, and that the parameters will be adhered to by future contractors carrying out the detailed design and construction of the Scheme.

6 Securing Good Design

6.1 How the Scheme will secure good design

6.1.1 The DCO application for the Scheme includes a **Draft DCO [EN010168/APP/3.1]** that will secure the design of the Scheme through various mechanisms which are described below.

6.1.2 Schedule 1 of the **Draft DCO [EN010168/APP/3.1]** describes the authorised development as a set of numbered works. Article 3(2) of the **Draft DCO [EN010168/APP/3.1]** requires that the numbered works authorised by the made Order are located in the corresponding areas shown on the **Works Plans [EN010168/APP/2.3].** This secures the location and layout of the components of the Scheme design.

6.1.3 Schedule 2 of the **Draft DCO [EN010168/APP/3.1]** sets out the Requirements that the Scheme must comply with. Article 3(1) of the **Draft DCO [EN010168/APP/3.1]** states that consent for the Scheme is only given subject to compliance with these Requirements. Each Requirement sets out the details and documents that the Scheme must legally comply with.

6.1.4 With respect to detailed design, Requirement 5 of the **Draft DCO [EN010168/APP/3.1]** sets out that the development must be carried out in accordance with the **Design Principles and Parameters [EN010168/APP/7.4]**. This approach is taken to ensure suitable flexibility in the design of the Scheme, so that the latest technology can be used, while ensuring that good design will be embedded in the final design and that the impacts of the Scheme will not differ from those set out in the Environmental Statement.

6.1.5 The documents and management plans that set out the Scheme's design commitments at this stage, and which will inform detailed documents secured by the Requirements in the **Draft DCO [EN010168/APP/3.1]**, are:

- **Design Principles and Parameters [EN010168/APP/7.4],** secured under Requirement 5 of the **Draft DCO [EN010168/APP/3.1]** sets out the Design Principles and parameters for the Scheme;
- **Outline Battery Safety Management Plan [EN010168/APP/7.21]** secured under Requirement 6 of the **Draft DCO [EN010168/APP/3.1]**, sets out the safety and property protection fire safety risks associated with BESS. It demonstrates that the Scheme does not give rise to a significant increase in fire risk and risks can be addressed;

- **Outline LEMP [EN010168/APP/7.18]** secured under Requirement 7 of the **Draft DCO [EN010168/APP/3.1]** provides a framework for the landscape strategy and ecological mitigation for the Scheme;
- **Outline Ecological Protection and Mitigation Strategy [EN010168/APP/7.19]** secured under Requirement 8 of the **Draft DCO [EN010168/APP/3.1]** provides ecology-focussed protection and mitigation prescriptions for the construction phase of the Scheme;
- **Outline CEMP [EN010168/APP/7.12]** secured under Requirement 13 of the **Draft DCO [EN010168/APP/3.1]** details the measures that will be in place to minimise the environmental impact of the Scheme during construction;
- **Outline OEMP [EN010168/APP/7.13]** secured under Requirement 14 of the **Draft DCO [EN010168/APP/3.1]** details the measures that will be in place to minimise the environmental impacts of the Scheme during operation;
- **Outline CTMP [EN010168/APP/7.22]** secured under Requirement 15 of the **Draft DCO [EN010168/APP/3.1]** outlines the traffic management measures that will be implemented to ensure safety and minimise disruption from traffic during the construction of the Scheme;
- **Outline Public Rights of Way and Permissive Paths Management Plan [EN010168/APP/7.17]** secured under Requirement 16 of the **Draft DCO [EN010168/APP/3.1]** details how PRoW will be managed during the Scheme in terms of both safety and accessibility;
- **Outline Soil Resources Management Plan [EN010168/APP/7.15]** secured under Requirement 17 of the **Draft DCO [EN010168/APP/3.1]** sets out the good practice mitigation principles and procedures that will be applied to specific soil types for the handling, storage and reinstatement of soils used for the Scheme;
- **Outline Skills, Supply Chain and Employment Plan [EN010168/APP/7.20]** secured under Requirement 18 of the **Draft DCO [EN010168/APP/3.1]** details the potential opportunities created by the Scheme for economic benefits, supply chain and employment;
- **Outline SWMP [EN010168/APP/7.16]** secured under Requirement 19 of the **Draft DCO [EN010168/APP/3.1]** sets out the good practice measures that will be implemented to manage waste generated by construction of the Scheme; and

- **Outline Decommissioning Strategy [EN010168/APP/7.14]** secured under Requirement 20 of the **Draft DCO [EN010168/APP/3.1]** details the measures that will be in place to minimise the environmental impacts of the Scheme during decommissioning.

6.1.6 These documents and management plans set out the design commitments and embedded mitigation the Scheme proposes, such as buffers, ecological and landscaping enhancement measures and location of infrastructure. These documents and management plans are referred to as 'outline' documents, and will be finalised post consent under the relevant requirements, and approved by the relevant planning authority. The Requirements in the **Draft DCO [EN010168/APP/3.1]** state that the detailed versions of these documents and management plans must be substantially in accordance with the outline documents and management plans.

6.1.7 The **Commitments Register [EN010168/APP/7.26]** is not a secured document, but provides a breakdown of the environmental mitigation measures to be adopted during the construction, operation and maintenance, and decommissioning phases of the Scheme, and identifies where that mitigation is secured in the Requirements in Schedule 2 of the **Draft DCO [EN010168/APP/3.1]**.

6.2 Community Liaison Group

6.2.1 Future design development will be overseen by a technical design team, and emerging design decisions will be communicated to the local community via a Community Liaison Group. The Community Laison Group would act as a connection between relevant organisations, which could include Parish or Town Councils, local businesses, and community groups. They could lead on delivering steering groups or forums, and offer engagement opportunities around on-site community benefits. This would feed into the design team's input, and they could also consult on the refinement of off-site community benefits via the fund.

6.2.2 Requirement 4 of the **Draft DCO [EN010168/APP/3.1]** requires that terms of reference must be agreed with the relevant planning authority for the establishment of a Community Liaison Group during the construction period of the Scheme, that will facilitate liaison between the people living close to the Scheme and the relevant organisations.

7 Conclusion

7.1.1 This DAD demonstrates how the Scheme has been shaped by, and will be delivered taking into account the following:

- The principles of good design set out in the NSIPs: Advice on Good Design (set out in **Section 2.1** of this DAD);
- Policy requirements of NPS EN-1, EN-3 and EN-5, local planning policy and design guidance (set out in section 2.2 of this DAD);
- The project brief, set out in **Section 3.1** of this DAD, to sensitively design and deliver the construction, operation and maintenance, and decommissioning of a solar PV electricity generating station with a total capacity exceeding 50 megawatts (MW) and 'associated development' including Battery Energy Storage System (BESS), grid connection infrastructure and other infrastructure, taking account of the local and surrounding context and applying the mitigation hierarchy, to provide urgently needed renewable and low carbon energy into the National Grid at Melksham; and
- The Design Vision (set out in **Section 3.6** of this DAD) and the Design Principles, (set out in **Section 3.7** of this DAD), which include the Design Principles for the Scheme, and the IGP company-wide global design principles.

7.1.2 This DAD also demonstrates how the design of the Scheme has evolved in response to stakeholder engagement, consultation feedback, and technical studies, and how the Design Vision and Design Principles have guided the design to minimise adverse impacts, enhance opportunities, and balance flexibility and certainty in the DCO application.

7.1.3 Through carefully developing the design in response to the constraints and opportunities identified within the local area (see **Section 3.5** of this DAD), the Applicant has achieved a design that responds positively to place, minimises impacts on heritage, delivers ecological and social benefits, avoids or minimises negative impacts as far as possible and makes valuable enhancements to the local area.

7.1.4 The securing mechanisms are set out, ensuring that the good Design Principles that have influenced the design will be delivered.

7.1.5 The **Planning Statement [EN101054/APP/7.2]** and NPS Accordance Tables demonstrate how the Applicant has complied with the requirement to achieve good design, as set out in NPS EN-1, NPS EN-3 and NPS EN-5.

8 References

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Ref 11 National Infrastructure Commission Design Group, Design Principles for National Infrastructure (2020). Available at

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Ref 15 Wiltshire Council Design Guide (2024). Available at https://www.wiltshire.gov.uk/planning-building-control-wiltshire-design-guide [last accessed 28/08/2025]

Ref 16 South Gloucestershire Council, Design Checklist SPD (adopted August 2007). Available at https://beta.southglos.gov.uk/planning-policy-guidance/ [last accessed 28/08/2025]

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Annex A: Consideration of the Planning Inspectorate's guidance 'Nationally Significant Infrastructure Projects: Advice on Good Design'

Overview

1.1.0 On 23 October 2024, the Planning Inspectorate published a new Advice Page providing guidance on 'Good Design' for Nationally Significant Infrastructure Projects (NSIPs). This advice explains why good design in NSIP schemes is important and how it might be delivered in applications for development consent.

1.1.1 Annex A of the Inspectorate's Advice Page on Good Design sets out 'good design issues to consider'. The Inspectorate sets out that applicants should consider the content of Annex A before submitting a DCO application for an NSIP.

1.1.2 The content of Annex A has been extracted from the Inspectorate's Advice Page on Good Design and is set out below in Table A-1. The purpose of this document is to consider if and how the good design issues are being addressed within the application documentation for the Scheme.

Table A-1 Consideration of the Planning Inspectorate's Advice Page on Good Design

Issue	Considerations	Project consideration of issue
Design Approach Document (DAD)	Is a DAD provided?	Yes.
	Does the DAD address the brief, the design process, the design principles, and beneficial outcomes?	Yes, this DAD addresses these points and is structured using these headings.
	If a DAD is not provided, where are the design process and design principles set out?	N/A
Analysis, Research	How has the development site been analysed to inform a good design approach?	**Section 3.5 Baseline Information** of this DAD sets out how the location of the Scheme has been analysed to inform a good design approach.
	What are the main conclusions from this analysis that inform the design at this stage and as it develops?	**Section 3.5 Baseline Information** of this DAD sets out the constraints and opportunities identified as part of this analysis.
Response	What are the main significant adverse effects of the proposed development and how are they addressed to enable good design?	**Section 4. Research** and **Section 5. Co-ordinate** of this DAD explain how the design provides mitigation for

Issue	Considerations	Project consideration of issue
		the adverse impacts of the Scheme, with reference to the mitigation hierarchy.
Vision	What is the vision for the completed development and its surroundings? Where is it set out?	**Section 3.6 Design Vision** of this DAD sets out the vision for the Scheme and accompanying commentary.
	Set out the narrative, how the vision will achieve sustainability, create a new place and hold the design together.	
Skills	What professional disciplines and skill sets are being and will be working on the design of the project?	**Section 3.3 Design Champion and Team** of this DAD sets out the professional disciplines involved in the design and their skill sets.
	Is there a design champion designated for this project, and if so, who is it and what are their skills?	**Section 3.3 Design Champion and Team** of this DAD explains that role of the Board Level Design Champion and the project level Design Champion.
Developing the design	Describe the approach to good design and explain how the design has (and will continue) to evolve.	**Section 4. Research, Section 5. Co-ordinate** and **Section 6. Securing Good Design** of this DAD describes the approach to good design, and how the design has and will continue to evolve.
	How is any required flexibility being addressed?	**Section 5. Co-ordinate** of this DAD explains how the Scheme addresses flexibility, by assessing likely significant effects within minimum and maximum parameters. The **Planning Statement [EN010168/APP/7.2]** will also provide details on how flexibility will be achieved.
	What design choices have (and will be) made?	**Section 4. Research** and **Section 5. Co-ordinate** of this DAD sets out the key design choices that have been made in the design of the Scheme.

Issue	Considerations	Project consideration of issue
		Section 6. Securing Good Design sets out how design choices will be made in the future.
	What are the emerging design principles and how have the principles directly informed decision making?	**Section 3.7 Design Principles** of this DAD sets out the design principles for the Scheme. **Section 4. Research** and **Section 5. Co-ordinate** illustrate how the design principles have informed decision making.
	Is there a hierarchical approach to elements of the proposal (for example in designing major and less important bridges in a highways scheme)?	No, due to the technical requirements of a solar scheme and the interrelationship of the infrastructure.
	Have digital techniques, including algorithms and AI been used in design development? If so, explain the tools and data used.	AI has not been used in the design development of the Scheme. The only digital tools used in the design development have included desk-based assessment of constraints using best available online data, and Geographic Information System (GIS) data.
	Is there a coherent narrative of how the approach to design has evolved?	This DAD sets out a coherent narrative of how the approach to design has evolved.
	Where are design outcomes set out?	**Section 4. Research, Section 5. Co-ordinate** and **Section 6. Securing Good Design** of this DAD sets out how the Scheme has achieved good design outcomes. Section 4.2 explains the positive design outcomes of the Scheme.
	Will additional value beyond the site boundary be incorporated?	As set out in section 5.5 of the **Planning Statement [EN010168/APP/7.2]** the Applicant has committed to a Community Benefit Fund (CBF). The CBF does not

Issue	Considerations	Project consideration of issue
		form part of the DCO application and this funding is not required to mitigate the impacts of the Scheme. Therefore it cannot be taken into account in the decision making process for determining the DCO application. However, it will be available to fund local projects.
Independent design review	Has the design development been the subject of an independent design review?	The Scheme has not been subject of an independent design review. The project design team is very experienced in developing solar projects so an independent review was not considered necessary.
	If so, what were the main comments and how has the design responded to them?	n/a
	Is it the intention to include design reviews post-consent? If so, how are these secured?	n/a
Delivery	How will the final design be delivered? Will there be a design management plan, a design guide or a design code? If not, why are they not required?	**Section 6. Securing Good Design** of this DAD sets out how the final design will be delivered, through Requirements in the made DCO which will secure various documents and management plans. Therefore a separate design management plan, design guide or design code will not be required.
	Is there a design consultation plan to engage the community following consent of the DCO?	As set in **Section 6.2 Community Liaison Group** of this DAD, following the grant of the DCO, a community liaison group would be in place to facilitate liaison with the local community.

Issue	Considerations	Project consideration of issue
	Is there an agreed process for post-consent decisions with local planning authorities and others, where required?	The relevant local planning authorities will be the discharging authorities for the Requirements in the DCO.
Place	How is placemaking being addressed?	**Section 4.2 Positive Design Outcomes** of this DAD sets out how good design outcomes have resulted in a Scheme that is sustainable infrastructure that is sensitive to place and provides numerous positive outcomes for the local area.
	How will this be a distinctive place and how will the community benefit from it?	Distinctiveness is not a design principle relevant to the Scheme as it has been designed to integrate into the existing landscape and be screened with existing and new vegetation. However, community benefits will be delivered through measures such as ecological and landscape enhancements, biodiversity net gain and the provision of new permissive paths as set out in **Section 4.2 Positive Design Outcomes** of this DAD.
	Describe what the quality of place outcome will be, how this relates to the vision and how it will be secured?	**Section 4.2 Positive Design Outcomes** of this DAD describes what the quality of place outcome will be, and how this relates to the design vision set out in **Section 3.6 Design Vision** of this DAD. **Section 6. Securing Good Design** of this DAD explains how this will be secured.
People	What consultation has taken place with statutory and local authorities, communities and people with an interest in the land?	**Section 4. Research** and **Section 5. Co-ordinate** of this DAD set out what consultation has taken place with statutory and local

Issue	Considerations	Project consideration of issue
		authorities, communities and people with an interest in the land, and how the design evolved as a result of this consultation. The **Consultation Report [EN010168/APP/5.1]** sets out more detail on what consultation has been undertaken as part of the Scheme.
	How will their views be incorporated in the design evolution and where will this be set out?	**Section 4. Research** and **Section 5. Co-ordinate** of this DAD sets out how key views from consultations have been incorporated into the design evolution. The **Consultation Report [EN010168/APP/5.1]** also sets out in more detail what views have been raised by consultees and how these have affected the Scheme design.
Integrated design approach	Explain how an integrated, holistic approach to the project's design will be achieved.	This DAD explains how an integrated holistic approach to the projects design will be achieved, and **ES Volume 2, Figure 8-15 Indicative Masterplan [EN010168/APP/6.2]** illustrates the holistic approach to design.
	Where is it shown in the documentation? Is there a masterplan?	This is shown on **ES Volume 2, Figure 8-15 Indicative Masterplan [EN010168/APP/6.2]**.
	How will this be secured?	**Section 6. Securing Good Design** of this DAD explains how the design of the Scheme will be secured.
National Policy Statements (NPSs)	How have the requirements for good design in the relevant NPS (or NPSs) been met?	**Section 2.2 Policy Context** of this DAD sets out how the requirements for good design in the relevant NPSs have

Issue	Considerations	Project consideration of issue
		been considered. **Section 4. Research, Section 5. Co-ordinate** and **Section 6. Securing** demonstrate how these requirements have been met. Additionally, the **Planning Statement [EN010168/APP/7.2]** including the associated annexes (**Annex A: National Policy Accordance Tables** and **Annex B: Local Policy Accordance Tables)** demonstrate how the Scheme complies with the good design policies of NPS EN-1, NPS EN-3 and NPS EN-5 and local planning policy.
Design Principles	Set out the good design principles being applied to the project.	**Section 3.7 Design Principles** of this DAD sets out the good design principles that have been applied to the Scheme.
	Are the design principles structured or grouped logically?	Yes, the design principles have been developed in line with key themes identified within national and local policy requirements.
	How will they be developed prior to consent?	The design principles will not be amended prior to consent, as they reflect the vision and goals of the Scheme.
	How will they be illustrated and secured?	**Section 6. Securing Good Design** of this DAD sets out how the design of the Scheme, which has been informed by the design principles, will be secured.
National Infrastructure Commission (NIC) 'principles'	Is there a response to the NIC's four principles of good design?	Yes, the Design Principles have been developed in line with national and local policy requirements, including the four key principles of good

Issue	Considerations	Project consideration of issue
		design set out in the NIC's guidance.
	If not, what design principles have been adopted?	n/a
	What process has been used to develop and embed project level design principles?	The Applicant sought to establish good design at an early stage of the Scheme development process, as demonstrated within the DAD.