

Boxted Solar Farm, Boxted, Suffolk

Biodiversity Net Gain Statement

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Client	RES Ltd
Project	Boxted Solar Farm
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Summary

Report purpose	To present the methods and results of a biodiversity net gain assessment for the proposed development of the Boxted Solar Farm project.
Client	The client is RES Ltd
Date and methods	Extended Phase 1 habitat survey: April 2022 Application of the net gain metric: October 2023
Existing pre-development baseline habitats	<p>The existing habitats on the Site and their 'condition' are:</p> <ul style="list-style-type: none"> • Arable fields: N/A • Species poor semi-improved grassland: Poor • Native hedgerows: Moderate & Poor <p>The existing biodiversity value of the Site in biodiversity unit (BU) terms is 82.92 BU for the area habitats and 20.93 BU for the linear habitats (hedgerows).</p>
Post-development habitats	<p>The post-development habitats on the Site and their target 'condition' will be:</p> <ul style="list-style-type: none"> • Other neutral grassland: Moderate & Poor • Lowland mixed deciduous woodland: Moderate • Artificial unvegetated, unsealed surface: N/A • Native hedgerows: Moderate <p>The post-development biodiversity value of the Site is 165.16 BU for the area habitats and 31.00 BU for the linear habitats (hedgerows).</p>
Enhancement and creation of habitats	<p>The development will deliver:</p> <ul style="list-style-type: none"> • Enhancement of existing hedgerows through in-fill planting. • Creation of grassland under the solar arrays and within the area fenced for security. • Creation of grassland on land outside of the fence; to the field boundary where there is not an existing grass margin. • Planting of native trees and native shrubs. <p>The development also provides additional enhancement for species including:</p> <ul style="list-style-type: none"> • Installation of bat boxes and barn owl boxes <p>The Defra Biodiversity Metric 4.0 does not include formulae to evaluate biodiversity measures for species.</p>
Overall biodiversity net gain	The overall biodiversity change is 99.18% for area habitats and 48.08% for linear habitats (hedgerows).

1 Introduction

Aims of study

- 1.1 This report presents the methods and results of the biodiversity net gain (BNG) assessment of the proposed development of the Boxted Solar Farm, Boxted, Suffolk.
- 1.2 The existing and proposed habitats and their condition are described, the habitat creation and enhancement resulting from the development is set out and the summary outcome of the Defra Biodiversity Metric 4.0 is provided together with the associated interpretation of the results and any relevant assumptions or limitations.

Background to commission

- 1.3 BSG Ecology was commissioned by RES Ltd in August 2023 to prepare this BNG assessment.

Site Description

- 1.4 The land proposed for development is located within the Boxted Estate, west of Boxted, Suffolk.
- 1.5 The wider landscape consists of rolling arable fields with scattered woodland and the River Glem valley.
- 1.6 The Site is located within the administrative boundary of Babergh District Council (BDC).

Proposed Development

- 1.7 The application by RES Ltd is for the construction and operation of a solar farm with all associated works, equipment and necessary infrastructure (hereafter referred to as the 'Proposed Development').
- 1.8 The Site comprises six fields of varying sizes covering approximately 44 ha. The fields are in arable cultivation and divided by hedgerows.

The policy and legislation background

National biodiversity net gain policy

- 1.9 Existing Government policy for England on biodiversity net gain is set out in Paragraph 174 of the National Planning Policy Framework (NPPF) (MHCLG, 2023). This states that
"Planning policies and decisions should contribute to and enhance the natural and local environment by ... minimising impacts on and providing net gains for biodiversity including by establishing coherent ecological networks that are more resilient to current and future pressures..."
- 1.10 In July 2019 the Government confirmed the intention to make biodiversity net gain mandatory in England for developments that require planning consent (with some minor exclusions and a simplified assessment for small sites); that the scale of net gain required would be a 10% increase; that the process would favour net gain that occurred on-site or locally; and that the calculation of net gain would be carried out using a calculation process published by Defra.
- 1.11 Defra issued their method for calculating the net change in biodiversity (Defra Biodiversity Metric 2.0) in July 2019, updating that in July 2021 with Defra Biodiversity Metric 3.0, a further update to Metric 3.1 in April 2022 and a final update to Metric 4.0 in March 2023. It is expected that Metric 4.0 will be the version approved by the Secretary of State and that it will become the mandatory method. Alongside the Metric, Defra and Natural England have published guidance for developers and the ecology profession on how to apply it.

Proposed mandatory biodiversity net gain legislation

- 1.12 In July 2019 the Government confirmed the intention to make biodiversity net gain mandatory in England for developments that require planning consent and progress toward that intention has been made with the Environment Act 2021 receiving Royal Assent in November 2021. Secondary legislation is required to implement the BNG provisions. In January 2022 Government consulted on the Regulations required to implement BNG and in September 2023 announced that BNG would become mandatory from January 2024 onwards.
- 1.13 The key measures in the Environment Act relating to BNG are (as itemised in Schedule 14):
- The submission by the developer of a ‘biodiversity gain plan’.
 - Achievement of a biodiversity net gain of 10%.
 - Application of a biodiversity metric produced and published by the Secretary of State.
 - Fixing the pre-development biodiversity value to a pre-determined reference date of 30 January 2020.
 - Maintenance of the biodiversity enhancements for at least 30 years after the development is completed.

Local planning policy

- 1.14 The current Local Plan of Babergh District Council is the Babergh Local Plan Alteration No.2 was adopted by the Council in June 2006 although some policies have been superseded as result of the adoption of the Babergh Core Strategy & Policies in February 2014.
- 1.15 The adopted Local Plan does not have a specific policy relating to biodiversity net gain (a consequence of its age in relation to the NPPF) but it does have a policy that includes the enhancement of biodiversity. Core Strategy Policy CS15: Implementing Sustainable Development in Babergh states:
- “Proposals Should:*
- vii) protect and enhance biodiversity”*
- 1.16 Babergh District Council and Mid Suffolk District Council are working to prepare and adopt a Joint Local Plan. The draft Joint Local Plan has been through Examination and the Inspectors’ report published in September 2023. Part 1 of the Joint Local Plan will be considered for adoption at Full Council meetings in November 2023.
- 1.17 That emerging Local Plan, accounting for the Inspectors’ Main Modifications, has a policy that relates to biodiversity net gain. Emerging policy LP16 – Biodiversity and Geodiversity states:
- “*
- e) Identify and pursue opportunities for securing measurable net gains, equivalent of a minimum 10% increase, for biodiversity. The Councils will seek appropriate resources from developers for monitoring biodiversity net gain from developments. Where biodiversity assets cannot be retained or enhanced on site, the Councils will support the delivery of net gain in biodiversity off-site;*
- ”*

2 Biodiversity Net Gain Assessment Method

Introduction

- 2.1 In order to demonstrate measureable biodiversity net gain, the Defra Biodiversity Metric 4.0 has been used to calculate the biodiversity value of the site both for the existing site baseline conditions and for the post-development scenario.
- 2.2 The extended Phase 1 habitat survey information is used to complete the existing site baseline net gain calculation to establish the biodiversity value of the site, quantified by the number of biodiversity units.
- 2.3 Information is then taken from the Proposed Development to carry out the post-development scenario calculations. The calculator requires that habitat distinctiveness and condition are determined together with the area of habitat that will be affected.
- 2.4 Taken together, the above calculations will identify the net gain/loss in 'biodiversity unit' (BU) terms.
- 2.5 Following the initial calculation, if necessary, the Proposed Development is reviewed to help achieve further BU through habitat retention, creation and enhancement within the site and, in some circumstances, creation and enhancement off-site.
- 2.6 The Environment Act will, after the necessary Regulations are approved by Parliament, require a 10% uplift to the existing (i.e. pre-development) baseline BU value to demonstrate that the mandated biodiversity net gain requirement has been met. At that time, in the event that the 10% uplift is not met, then further on- or off-site options would need to be identified to provide the required biodiversity net gain.

Defra Biodiversity Metric 4.0

- 2.7 The biodiversity net gain assessment method is based on the information contained in the User Guide that accompanies the Defra Biodiversity Metric 4.0 (Natural England, 2023).
- 2.8 The calculations of biodiversity value have been carried out using the Defra Biodiversity Metric 4.0. The metric uses habitat features as a proxy measure for capturing the value and importance of biodiversity. It is in the form of a MS Excel spreadsheet that calculates the biodiversity value of a site before and after development based on habitat features and accounting for their size, ecological condition, location and proximity to nearby 'connecting' features.
- 2.9 The method used is summarised as a series of stages as follows and is set out in more detail in the subsequent paragraphs:
 - Stage 1: Desk study and field survey to identify and quantify the habitats.
 - Stage 2: Desk based evaluation of the 'condition' of the habitats.
 - Stage 3: Calculation of the pre- and post-development biodiversity value of the site and the net change in biodiversity value using the Defra Biodiversity Metric 4.0.

Stage 1: Desk based study and field survey

- 2.10 A desk study and a Phase 1 habitat survey of the Proposed Development were undertaken and the method, evaluation and results are summarised in the Ecological Assessment (BSG Ecology, 2023).
- 2.11 The Phase 1 habitat survey followed the method described in JNCC (2010) to map and record the habitat types using standard notation for a Phase 1 habitat survey. Lists of plant species and indications of land management practices were recorded for each habitat parcel in order to inform the assessments of the condition of the habitats present (see Stage 2).

- 2.12 The Phase 1 habitat survey was digitised with GIS software and the areas of habitats and lengths of linear features calculated using the GIS software.

Stage 2: Desk based evaluation of the 'condition' of the habitats

- 2.13 The condition of each habitat identified as being on-site pre-development was assessed and scored in order to provide the necessary input to the Defra Biodiversity Metric 4.0. That assessment was carried out following the condition assessment sheets (a downloadable MSExcel file¹) and the technical guidance that accompanies the Defra Biodiversity Metric 4.0 (Technical Annex 2 to Natural England, 2023). The habitat features identified and categorised in the Phase 1 habitat survey were converted to the relevant UK Habitat Classification categories as a necessary part of preparing the input to the condition assessment and to the Defra Biodiversity Metric 4.0. It should be noted that, as part of this conversion, the naming of features in the Ecological Assessment may differ in minor respects to the habitat names given in this document that uses the UK Habitat Classification nomenclature.
- 2.14 Defra Biodiversity Metric 4.0 converts the descriptive assessment of condition into a numeric score as follows: Condition Poor = Metric score 1, Condition Moderate = Metric score 2 and Condition Good = Metric score 3.

Stage 3: Biodiversity net gain calculation

Calculation of pre-development ecological value

- 2.15 The information obtained from the Phase 1 habitat survey, the GIS calculation of areas / lengths and the condition of the habitats are used as inputs to the Defra Biodiversity Metric 4.0. The calculator outputs the pre-development biodiversity value expressed as the number of Biodiversity Units (BU).
- 2.16 To calculate the number of BU's the MSExcel spreadsheet has been pre-populated with a series of formulae that take account of the following factors:
- Distinctiveness: A ranking of the habitat based on a combination of its listed conservation status and its value to wildlife as a habitat (expressed as very high, high, medium, low or very low).
 - Condition: Whether the habitat is a good example of its type (expressed as poor, moderate or good).
 - Extent: The area or length of the habitat.
 - Connectivity: The relationship of a particular habitat patch to other surrounding similar or related semi-natural habitats.
 - Strategic significance: Whether the habitat is located in a preferred location for local biodiversity and environmental objectives, such as Nature Recovery Areas or areas identified in local Biodiversity Action Plans.
- 2.17 The formulae translate habitat distinctiveness, condition, extent and connectivity into a score which is presented in BU's. There are separate worksheets for area based habitats and linear habitats such as hedgerows and rivers.

Calculation of post-development ecological value

- 2.18 The proposed post-development land uses and associated habitat types that are set out in the Landscape Masterplan that accompanies the planning application are used as the input to the Defra Biodiversity Metric 4.0. The areas and / or lengths of habitat have been calculated with GIS software. The calculator outputs the post-development biodiversity value expressed as the number of BU.
- 2.19 As a result of using the nomenclature of the UK Habitat Classification the naming of features in this document differ in some respects to the names given in the application documents prepared by the

¹ <https://publications.naturalengland.org.uk/publication/6049804846366720>

relevant technical specialisms that each have their own systems for naming natural and man-made features.

- 2.20 In the same manner as the pre-development ecological value calculation, the MSEXcel spreadsheet for the post-development situation has been pre-populated with a series of formulae that calculate the BU's. For the post-development situation there are separate worksheets that calculate BU values for the situations where there is "Habitat Creation" and "Habitat Enhancement". Area based habitats and linear habitats are calculated separately.
- 2.21 In cases where habitat creation and enhancement are proposed then the formulae in the separate worksheets apply factors that account for the difficulty of achieving that habitat, for the time that it might take and the final condition of the habitat that is achieved. As for the pre-development habitat scoring, the formulae also account for habitat distinctiveness, extent and connectivity when calculating and presenting the output in BU's.

Calculation of the difference – the net value

- 2.22 The change in biodiversity value (net gain or loss) is calculated by subtracting the site's pre-development value in BU's from the post-development value that is the sum of the values for the retained, created and enhanced habitats on the site.
- 2.23 The Government's current position, set out in the Environment Act, is that a development needs to generate a 10% positive net value in BU's based on the pre-development biodiversity baseline BU value.

Assumptions and limitations

- 2.24 The net gain assessment is based on habitats only and it does not take account of any required species actions, such as those for legally protected species. The actions identified in the Ecology Assessment for this Site in relation to legally protected species remain relevant. The habitat types proposed within this BNG assessment have taken in to account the ecology mitigation measures detailed in the Ecology Assessment.
- 2.25 The BNG assessment does not give credit (in terms of a score or biodiversity units) to those actions that are taken as part of the development that add particular features to the Site, such as the provision of bird nesting and bat roosting features, that enhance the potential of the Site to support particular species.
- 2.26 The naming of natural and man-made features can differ between this document and the names used in the Ecology Assessment and in the application documents prepared by other technical specialisms.

3 Results of the Biodiversity Net Gain Assessment

3.1 This section provides information on the parameters that are input into the net gain metric and summarises the outputs of the net gain metric.

Stage 1: Habitats on-Site

3.2 The habitats on the Site were determined through field surveys in April 2022 and in summary are as set out in Table 1. The location of these habitats across the Site is illustrated in the Phase 1 habitat map prepared for the Proposed Development that is included as Figure 1. A more detailed description of the habitats is given in the Ecological Assessment.

Table 1: Habitat types on-Site pre-development and their area/length

Habitat type	Area (ha) or length (m)
Arable fields	41.46 ha
Species poor semi-improved grass margins	2.36 ha
Native hedgerow: Species rich with tree	1,590 m
Native hedgerow: Species rich	104 m
Native hedgerow: Species poor with trees	908 m
Native hedgerow: Species poor	1,480 m

Stage 2: The condition of the habitats

Pre-development condition

3.3 The evaluation of the condition of the habitats present on the Site pre-development was based on the criteria and guidance given for each habitat type in the Technical Supplement to Defra Biodiversity Metric 4.0 (Natural England, 2023).

3.4 Table 2 presents the assessment of the condition of the area-based habitats using the JNCC Phase 1 nomenclature.

Table 2: Condition for the area features

Habitat type	Condition
Arable fields	N/A
Species poor semi-improved grass margins	Poor

3.5 Table 3 presents the assessment of the condition of the linear habitats using the JNCC Phase 1 nomenclature.

Table 3: Condition for the linear features

Habitat type	Condition
Native hedgerow: Species rich with tree	Moderate & Poor
Native hedgerow: Species rich	Poor
Native hedgerow: Species poor with trees	Moderate & Poor
Native hedgerow: Species poor	Moderate & Poor

Post-development condition

3.6 The habitats that will be present on the Site post-development are based on those that will be delivered as a result of the Proposed Development as it is described in the planning application and included in the Landscape Masterplan. The distribution of those habitats on the Site is illustrated on the copy of the Landscape Masterplan, included here as Figure 2.

- 3.7 The retention, enhancement and improvement actions that result in those habitats on-Site post-development include:
- Enhancement of existing hedgerows through in-fill planting.
 - Creation of grassland under the solar arrays and within the area fenced for security.
 - Creation of grassland on land outside of the fence; to the field boundary where there is not an existing grass margin.
 - Planting of native trees and native shrubs.
- 3.8 The Proposed Development also requires the construction of access tracks and electrical infrastructure that are also accounted for in the calculation carried out within Defra Metric 4.0.
- 3.9 The habitat types on the Site, their area / length and their target condition are summarised in Table 4. This table also provides the habitat types described in accordance with the three sources – the Phase 1 habitat map (Figure 1), the Landscape Masterplan (Figure 2) and the Defra Metric. On a precautionary basis the grassland within the security fence which can be grazed has been entered into the Metric categorised in a poor condition. This would be the result if there were high sheep stocking densities and grazing during the height of the flowering season.

Table 4: Habitat types on-Site post-development, their area / length and their target condition

Habitat type			Area / length	Condition
JNCC Phase 1	Landscape Masterplan	Defra Metric 4.0		
Neutral grassland, semi-improved	Grass / Wildflower seed grazing mix within security fence	Other neutral grassland	36.72 ha	Poor
Neutral grassland, semi-improved	Grass / Wildflower seed mix (eg EH1)	Other neutral grassland	238 ha	Moderate
Neutral grassland, semi-improved	Grass / Wildflower seed mix (eg EW1)	Other neutral grassland	1.47 ha	Moderate
Broad-leaved semi-natural woodland	Native woodland mix	Lowland mixed deciduous woodland	2.06 ha	Moderate
Hardstanding	Access roads and electrical infrastructure	Artificial unvegetated, unsealed surface	1.19 ha	N/A - Other
Native hedgerow: Species rich with tree	Existing hedgerow	Species-rich native hedgerow with trees	1,590 m	Moderate
Native hedgerow: Species rich	Existing hedgerow	Species-rich native hedgerow	104 m	Moderate
Native hedgerow: Species poor with trees	Existing hedgerow	Native hedgerow with trees	908 m	Moderate
Native hedgerow: Species poor	Existing hedgerow	Native hedgerow	1,480 m	Moderate

Stage 3: Biodiversity net gain metric calculation outcome

- 3.10 The Defra Biodiversity Metric 4.0 has been used to quantify biodiversity net gain. With the incorporation of the above habitat creation and enhancement measures, the following ‘habitat unit’

scores have been calculated. A summary is presented in Tables 5 and 6 for area based and linear habitats respectively.

Table 5: Outcome of the BNG assessment for the area based habitats

Context	Value (BU's)
The pre-development biodiversity value of the Site	82.92
The post-development biodiversity value of the Site	165.16
The net change in biodiversity value of the Site	82.24
The net percentage change in biodiversity value of the Site	99.18%

Table 6: Outcome of the BNG assessment for the hedgerows

Context	Value (BU's)
The pre-development biodiversity value of the Site	20.93
The post-development biodiversity value of the Site	31.00
The net change in biodiversity value of the Site	10.07
The net percentage change in biodiversity value of the Site	48.08%

- 3.11 Annex 1 provides a copy of the summary overview of the metric calculations generated by the Defra Biodiversity Metric 4.0. An electronic version of the Defra Biodiversity Metric 4.0 Microsoft Excel based spreadsheet has also been submitted.

4 Conclusion

- 4.1 The landscaping, habitat creation and habitat enhancement measures to be implemented as part of the development of the proposed Boxted Solar Farm will achieve a biodiversity net gain score of +99.18% for habitats and of +48.08% for hedgerows.
- 4.2 The proposed Boxted Solar Farm will satisfy the emerging mandatory national requirement and the emerging Joint Local Plan for a greater than 10% biodiversity net gain, as measured by the Defra Biodiversity Metric.

5 References

JNCC (2010). *Handbook for Phase 1 habitat survey - a technique for environmental audit*. Joint Nature Conservation Committee, Peterborough.

Ministry of Housing, Communities and Local Government (2023). *National Planning Policy Framework*. MHCLG, London.

Natural England (2023). *The Biodiversity Metric 4.0: User Guide*. Natural England Joint Publication JP039.

Annex 1: Summary of Biodiversity Metric output

'Headline Results' output from Defra Biodiversity Metric 4.0

Boxted Solar Farm					
Headline Results					
Scroll down for final results ▲					
On-site baseline	Habitat units	82.92			
	Hedgerow units	20.93			
	Watercourse units	0.00			
On-site post-intervention <small>(Including habitat retention, creation & enhancement)</small>	Habitat units	165.16			
	Hedgerow units	31.00			
	Watercourse units	0.00			
On-site net change <small>(units & percentage)</small>	Habitat units	82.24	99.18%		
	Hedgerow units	10.07	48.08%		
	Watercourse units	0.00	0.00%		
Off-site baseline	Habitat units	0.00			
	Hedgerow units	0.00			
	Watercourse units	0.00			
Off-site post-intervention <small>(Including habitat retention, creation & enhancement)</small>	Habitat units	0.00			
	Hedgerow units	0.00			
	Watercourse units	0.00			
Off-site net change <small>(units & percentage)</small>	Habitat units	0.00	0.00%		
	Hedgerow units	0.00	0.00%		
	Watercourse units	0.00	0.00%		
Combined net unit change <small>(Including all on-site & off-site habitat retention, creation & enhancement)</small>	Habitat units	82.24			
	Hedgerow units	10.07			
	Watercourse units	0.00			
Spatial risk multiplier (SRM) deductions	Habitat units	0.00			
	Hedgerow units	0.00			
	Watercourse units	0.00			
FINAL RESULTS					
Total net unit change <small>(Including all on-site & off-site habitat retention, creation & enhancement)</small>	Habitat units	82.24			
	Hedgerow units	10.07			
	Watercourse units	0.00			
Total net % change <small>(Including all on-site & off-site habitat retention, creation & enhancement)</small>	Habitat units		99.18%		
	Hedgerow units		48.08%		
	Watercourse units		0.00%		
Trading rules satisfied?	Yes ✓				
Unit Type	Target	Baseline Units	Units Required	Unit Deficit	
Habitat units	10.00%	82.92	91.21	0.00	Unit requirement met or surpassed ✓
Hedgerow units	10.00%	20.93	23.03	0.00	Unit requirement met or surpassed ✓
Watercourse units	10.00%	0.00	0.00	0.00	Unit requirement met or surpassed ✓

Figures

The figures contained in this report are:

Figure 1: Pre-development habitats on-Site

[A copy of the Phase 1 habitat map submitted with the Ecological Assessment].

Figure 2: Post-development habitats on-Site.

[A copy of the Landscape Masterplan submitted with the application].



- Legend
- Site boundary (5m buffer to show hedgerows)
 - ▲▲ Intact hedge - native species-rich
 - Intact hedge - species-poor
 - ▼ Hedge with trees - native species-rich
 - + Hedge with trees - species-poor
 - Broadleaved woodland - semi-natural
 - SI Poor semi-improved grassland
 - A Cultivated/disturbed land - arable

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DRAWING TITLE
Figure 2: Phase 1 habitat survey results

DATE: 18/10/2023 CHECKED: RB SCALE: 1:4,500
 DRAWN: BH APPROVED: RB VERSION: 1.0

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No dimensions are to be scaled from this drawing and are to be checked on site. Area measurements for indicative purposes only.

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Sources: BSG Ecology survey data

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Creation of new woodland blocks throughout northern edges of site to reflect existing landscape character; selected Standard trees to be scattered throughout proposed woodland mixes to add height and structure at implementation.

Existing hedgerows H18 and H23 to be managed to heights between 4m and 7m (see Barton Hyett Associates' Tree Survey Plan drawing (BHA_4890_01) for reference).

Planting of native hedgerow trees across site to reflect existing landscape features and strengthen historical field boundaries.

Any gaps in existing hedgerow length to be infilled with proposed native hedgerow species to ensure dense coverage, reinforcing historical hedgerow patterns.

Overhead line above southern boundary, with 10m offsets either side

Hedgerow along southern boundary to be infilled wherever necessary with proposed native hedgerow species to ensure dense coverage along boundary length; hedgerow to be managed to a minimum of 4m height.

Landscape Strategy
The landscape strategy has been guided by the Site Tree Survey (Barton Hyett Associates), the Suffolk Landscape Character Assessment within which the site lies mostly within the Undulating Ancient Farmlands with the northern edges at the cusp of the adjoining Rolling Valley Farmlands LCA and the Valued Landscape Assessment, Stour Valley Additional Project Area (March 2020).

N.B. Where existing areas fall within those presently within the Country Stewardship areas, and those are not areas where new woodland planting is proposed, if these areas are indicated as being of value, they shall be safeguarded and managed appropriately; e.g. where there is an existing grass-flower margin this will be retained and its width added to if necessary.

Management of Existing Hedgerows
Across the site, existing elm suckers shall be identified and allowed to develop to form hedgerow trees during the ongoing course of hedgerow management. Existing hedgerows are surveyed within the Tree Survey as being of varied heights. Where hedgerows are already established to heights above 3.6m, these heights shall be maintained. Where hedgerows are below 3.6m in average height they shall be managed to increased heights of 3.6m and above. The hedgerow to the southern boundary should be managed to a minimum of 4m.

Existing hedgerows H18 and H23 shall be allowed to grow to heights of between 4-7m (see Barton Hyett Associates' Tree Survey Plan drawing (BHA_4890_01) for reference).

Native hedgerow tree planting
Trees to be double low-staked with ties and spacers. Each tree to be protected with 600 mm clear plastic spiral guard.

Native mixed hedgerows
To be planted at 5/linear metre in a double-staggered row, with rows 500mm apart. Hedges to be protected by spiral guards with cane, or within rabbit proof fencing, as appropriate.

Selected Standard Trees within Woodland Mix Planting
Trees to be set out informally within woodland areas with spacing between trees of 25-35m. Trees to be double low-staked with ties and spacers. Each tree to be protected with 600mm clear plastic spiral guard.

KEY
EXISTING
Red line boundary
Trees and vegetation
Root Protection Areas
Overhead line
Public Rights of Way
PROPOSED
Native woodland mix

Native hedgerow tree planting
Standard trees within woodland mix planting
Native mixed hedgerow planting
Strategic infill planting where required: native mixed hedgerow
Grass / Wildflower seed mix: Emorsgate Hedgerow Mixture EH1 or similar approved suitable for site's ground conditions to be agreed (outside the security fence)
Grass / Wildflower seed mix: Grazing mixture - species-rich grassland suitable for site's ground conditions to be agreed (within the security fence)
Grass / Wildflower seed mix: Emorsgate Woodland mixture EW1 or similar approved suitable for site's ground conditions to be agreed (outside the security fence)

Indicative planting list

Native Hedgerow Tree Planting				
ID	Plant Species	Size		(primary (P) or secondary (S) species)
A.c	Acer campestre	12-14cm, 350-425cm ht	P	
C.b.	Carpinus betulus	12-14cm, 350-425cm ht	P	
J.r	Juglans regia	12-14cm, 350-425cm ht	S	
M.s	Malus sylvestris	12-14cm, 350-425cm ht	P	
P.a	Prunus avium	12-14cm, 350-425cm ht	S	
Q.r	Quercus robur	10-12cm, 350-425cm ht	P	

Native Mixed Hedgerows				
ID	Plant Species	Height/Pot Size		%
A.c	Acer campestre	Selected to 900mm ht		10
A.c	Acer campestre	2m Feathered		5
C.s	Cornus sanguinea	Selected to 900mm ht		5
C.a	Corylus avellana	Selected to 900mm ht		7.5
C.m	Crataegus monogyna	Selected to 900mm ht		50
C.m	Crataegus monogyna	1.5m Feathered		5
E.eu.	Euonymus europaeus	Selected to 900mm ht		2.5
I.a	Ilex aquifolium	200-300mm ht		2.5
L.p	Lonicera periclymenum	200-300mm ht		2.5
P.s	Prunus spinosa	Selected to 900mm ht		10

(based upon WB Woodland - JNCC)

Native Woodland Mix				
ID	Plant Species	Height		%
A.p	Acer pseudoplatanus	1.75m Feathered		2.5
C.b.	Carpinus betulus	1.75m Feathered		10
C.o.s	Cornus sanguinea	400-600mm ht		5
C.a	Corylus avellana	Selected to 900mm ht		10
C.m	Crataegus monogyna	Selected to 900mm ht		15
E.eu.	Euonymus europaeus	Selected to 900mm ht		10
I.a	Ilex aquifolium	200-300mm ht		5
L.p	Lonicera periclymenum	200-300mm ht		2.5
P.a	Prunus avium	1.75m Feathered		2.5
Q.r	Quercus robur	1.75m Feathered		5
Q.r	Quercus robur	Selected to 900mm ht		10
S.c*	Salix caprea	Selected to 900mm ht		5
S.a	Sorbus aucuparia	1.75m Feathered		10
V.l.	Viburnum lantana	Selected to 900mm ht		7.5

*Salix caprea to be positioned to the northern edges of proposed woodlands

Selected Standard Trees within Woodland Mix Planting				
ID	Plant Species	Size (Girth)		Planting Height (m)
A.c	Acer campestre	12-14cm		3.5-4.0
C.b.	Carpinus betulus	12-14cm		3.5-4.0
P.a	Prunus avium	12-14cm		3.5-4.0
Q.r	Quercus robur	10-12cm		3.0-3.5

Rev	Date	By	Note
B	18.10.23	VR	Updates following receipt of ecologist's comments
A	09.10.23	FH	Client comments

Landscape Masterplan
Boxted Solar Farm
Client: RES Ltd. REV: B
DRWG No: P21-2960_EN_004
Drawn by: VR Approved by: FH
Date: 05/10/2023
Scale: 1:2,000 @ A1
PEGASUS GROUP