VIEWPOINT 23 - PHOTOMONTAGE

OS Location: E 201101.38 N 198583.29 | **Camera:** Canon EOS 6D | **Focal Length:** 50mm | **Camera Height:** 1.5m AGL | **Date:** 13.12.23 | **Time:** 15:56
Visualisation Type: 4 | **Enlargement:** 100% at A1 | **HFoV:** 80°

ALLESTON SOLAR FARM. PEMBROKESHIRE

Environmental Statement, Chapter 7: Landscape and Visual Effects

Appendix 7.7b: Verified Photomontages Methodology

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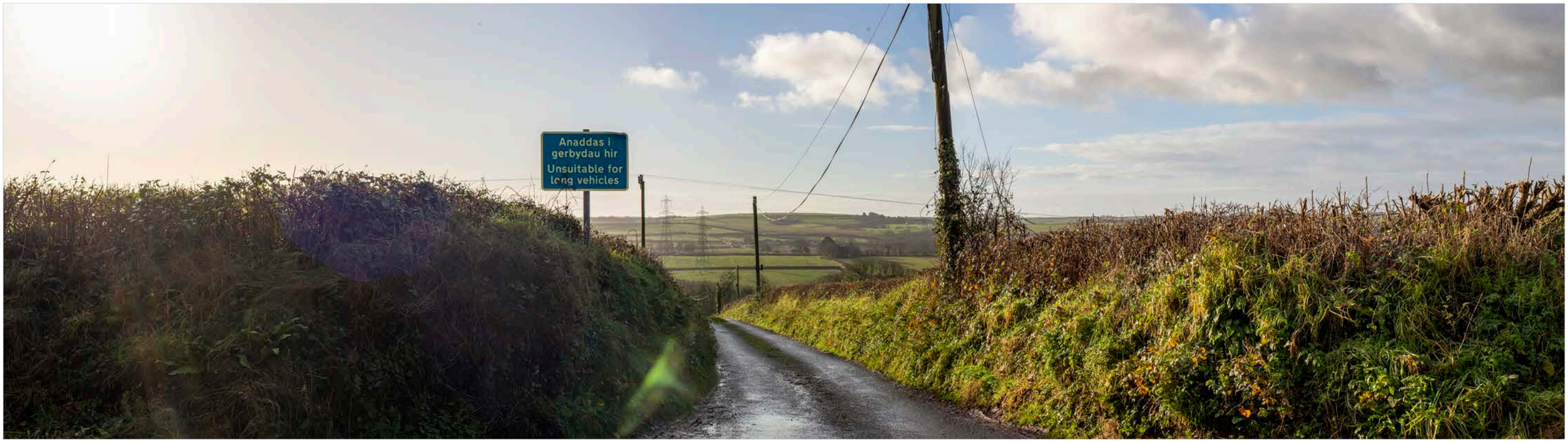
ALLESTON SOLAR FARM

INTRODUCTION

1.0



1.1 SITE LOCATION

Alleston Farm
Pembroke
Pembrokeshire
SA71 5NU

1.2 CLIENT

Statkraft
19th Floor
22 Bishopsgate
London EC2N 4BQ

1.3 PROJECT

Alleston Solar Farm

ArcMedia Limited was commissioned in November 2023 by Statkraft UK Limited to produce a series of visually verified montages (VVMs) of the proposed solar farm at Alleston Farm.

1.4 DESIGN INFORMATION & DATA

All the visualisations within this document have been produced using design, information and data supplied by the following consultants.

1.5 DEVELOPMENT DESIGN

Statkraft
19th Floor
22 Bishopsgate
London EC2N 4BQ

1.6 PLANNING & LANDSCAPE CONSULTANT

Stantec
7 Soho Square
London
W1D 3QB

1.7 ADDITIONAL DATA

OS CAD plan DWG
ProMap - OS Terrain 5 TIN
MK Surveys - Topographical site survey

1.8 SURVEY TEAM

MSA
Pandora House
41 - 45 Lind Road
Sutton
Surrey
SM1 4PP

1.9 PHOTOGRAPHER

MSA
Pandora House
41 - 45 Lind Road
Sutton
Surrey SM1 4PP

METHODOLOGY

2.0

2.1 INTRODUCTION

This document outlines the methodology and data employed by ArcMedia Limited to produce the visually verified photomontages of the proposed solar farm at Alleston Farm.

All of the methods employed are carried out to the highest level of accuracy achievable with the current technology and are based on the guidelines set out in the Visual Representation of Development Proposals - Technical Guidance Note 06/19 (17th September 2019) from the Landscape Institute.

2.2 VIEWPOINT SELECTION

The viewpoint locations were specified by the Landscape consultant Stantec.

The viewpoints were specified in a KMZ file along with a supporting location plan.

2.3 VISUALISATION TYPE

The visualisations provided in this report are referred to as Type 4 Photomontages by the Landscape Institute.

The purpose of the visualisations is to represent scale, appearance, context, form, and extent of development.

The visualisations will support the planning application along with the landscape consultants visual impact assesment and associated materials.

A Type 4 Photomontage visualisation being more than acceptable for these purposes.

2.4 PHOTOGRAPHY

For each viewpoint a high resolution, digital backplate photograph was captured by the MSA survey team using the following camera equipment:

Camera:	Canon EOS 6D
Lens:	Canon 16-50 mm
Focal Length:	50mm

The MSA team were provided with a full brief for the image requirements including OS location data and reference photos of the desired views. For each viewpoint the camera was positioned at 1.50m above ground level to represent human eye level. A point, vertically below the centre of the camera is marked on the ground as a survey reference point. Both the date and time of the photography capture is then recorded by the camera. (See fig. 01 & 02)

In order to capture the extent of the proposals for the site at close locations, additonal photographs were captured to the left and right of the central shot. Each shot being taken at 20 degree steps in order to create 80 and 180 degree panoramic, stiched shots.

fig. 01

fig. 02

2.5 SURVEY

MSA attended the site on the 11th - 15th December 2023 to carry out the survey of the specified viewpoints and capture the corresponding photographic backplates from the locations. Additional viewpoints were also captured between 26th -28th February 2024.

The location viewpoints were marked on the ground by MSA with a nail and spray in order to allow positioning of the survey equipment and camera in precisely the same locations.

Due to a lack of target / reference points available in some of the open field positions, additonal OS Terrain 5 data and OS map reference markers were used to supplement the prism markers and target points captured by MSA. The position of these markers were then recorded and noted on the associated photographs. (See fig. 03)

The reference/target point data was then recorded by MSA in CAD format and co-ordinated with the Ordnance Survey National Grid. Allowing the survey data to be incorporated with the local topographical survey and other OS data.

fig. 03

2.6 3D MODELLING

An accurate digital 3D model of the proposed solar farm was built in 3D Studio Max from the technical drawings and design information supplied by Statkraft, along with the landscape strategy by Stantec.

2.7 CAMERA MATCHING

The 3D model of the development was then precisely aligned to a CAD OS plan and local topographical CAD survey in Autodesk 3DS Max, an industry standard 3D modelling and rendering package. Once this had been completed the 3D viewpoint survey data supplied by MSA was also aligned. Providing accurate positions for the virtual camera and target points, in relation to the development.

At each of the viewpoint locations within the 3D model scene, a virtual camera was positioned using the corresponding lens data. The virtual camera was then rotated to align the surveyed CAD reference data and target points with the corresponding targets in the photographic backplate (original photograph). These positions are indicated on MSAs target/reference photographs. (See fig. 05)

Once this was complete, the position of the proposed development could be viewed in relation to the existing context, completing the camera matching process.

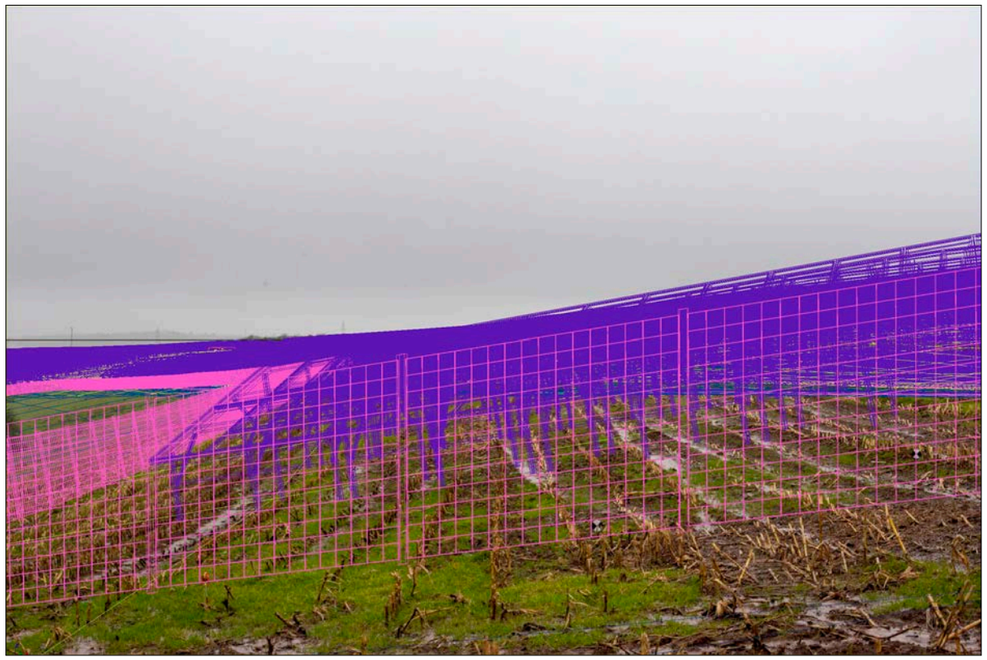


fig. 04

fig. 05

2.8 RENDERING

The 3D model scene was then set up to match the sun position and atmospherics of the backplate photography, along with the specified materiality of the proposed design.

A render (CGI) of the 3d model was then output at precisely the same resolution, scale and proportion as the original photograph. (See fig. 06)

2.9 POST PRODUCTION

The render was then composited in Adobe Photoshop image editing software and the relevant foreground elements masked out. (See fig. 07)

Once complete, this allowed the proposed development can be seen in context. Allowing for a direct comparison of the existing view with and without the proposed development. (See fig. 08)

fig. 07

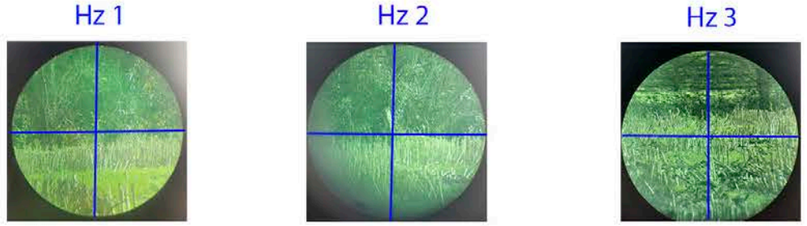
fig. 06

fig. 08

VIEWPOINT LOCATIONS

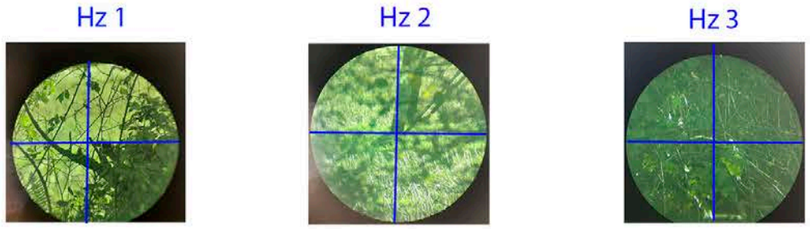
3.0

VP 01 - 50mm BASELINE PHOTOGRAPH



VP 01 -- Marked Data Points

VP 02 - 50mm BASELINE PHOTOGRAPH

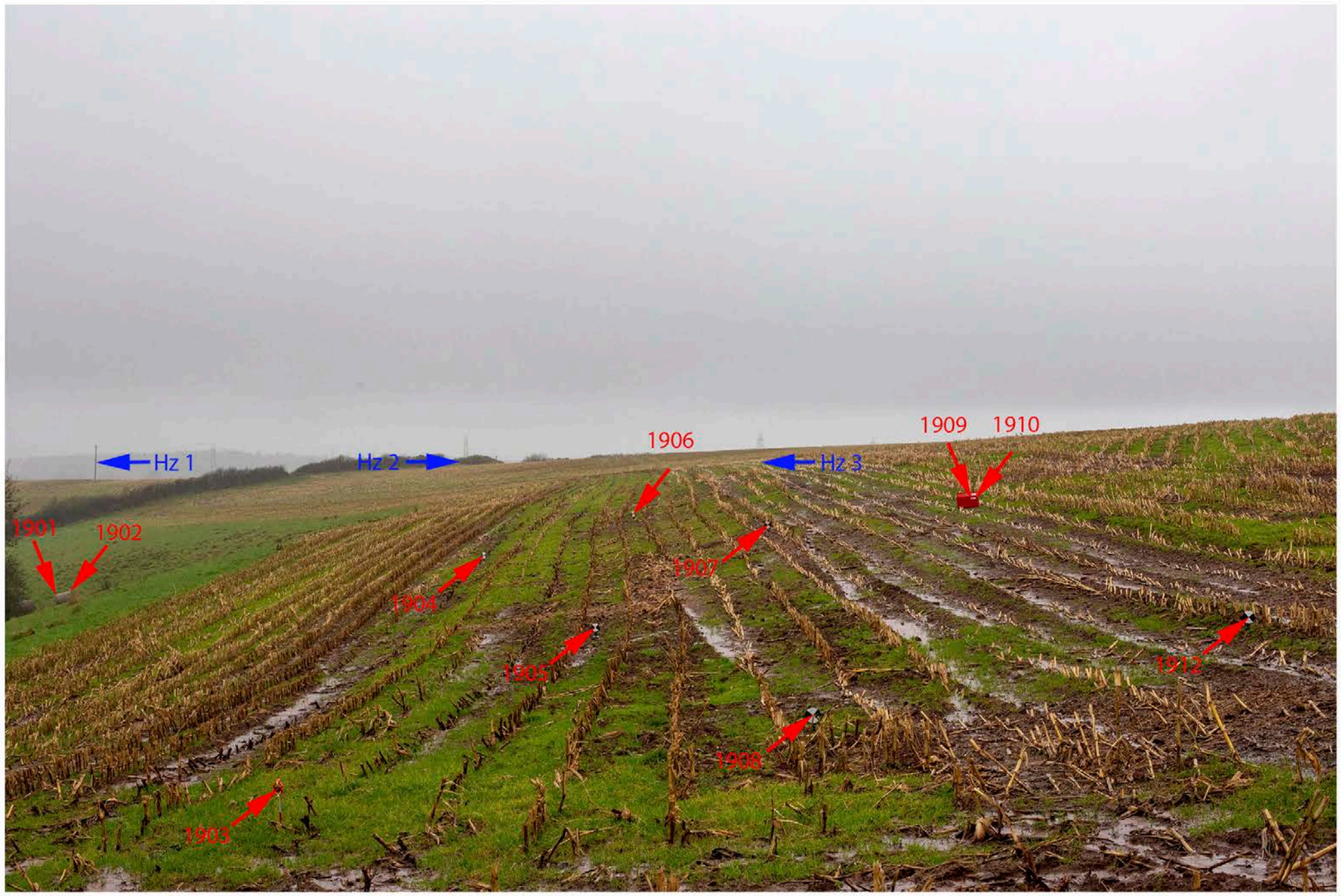


VP 02 - Marked Data Points

VP 05 - 50mm BASELINE PHOTOGRAPH

VP 05 - Marked Data Points

VP 06 - 50mm BASELINE PHOTOGRAPH

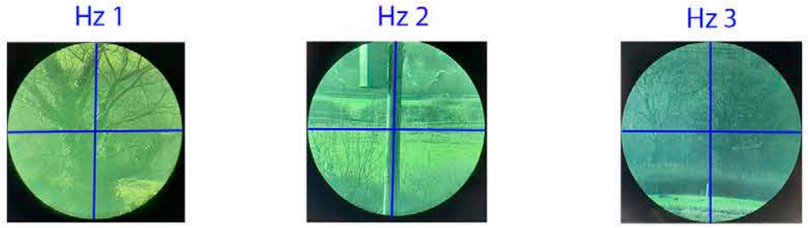


VP 06 -- Marked Data Points

VP 07 - 50mm BASELINE PHOTOGRAPH

VP 07 -- Marked Data Points

VP 10 - 50mm BASELINE PHOTOGRAPH



VP 10 - Marked Data Points

VP 11 - 50mm BASELINE PHOTOGRAPH

Hz 1

Hz 2

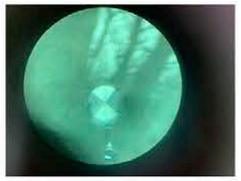
Hz 3

VP 11 -- Marked Data Points

VP 14 - 50mm BASELINE PHOTOGRAPH

Hz 1

Hz 2



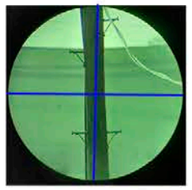
Hz 3

VP 14 - Marked Data Points

VP 19 - 50mm BASELINE PHOTOGRAPH

Hz 1

Hz 2



Hz 3

VP 19 - Marked Data Points