



Views towards a disused granite quarry at Halvosso.



Engine houses punctuate the skyline (as seen from a lane lined with Cornish hedges).



Open and exposed plateau with limited shelter.



Looking across to the Argal Reservoir.

Landscape sensitivity assessment			
Summary of landscape value (% of RLU)			
AONB: 159ha (1%)	AGLV: 4,628 ha (34%)	HC: 0ha (0%)	WHS: 1,822 (13%)
Criteria	Description	Sensitivity Score	
		Wind	Solar
<b>Landform and scale (including sense of openness/ enclosure)</b>	<ul style="list-style-type: none"> <li>An open, gently undulating and large-scale elevated plateau (reaching 250m at Carnmenellis), cut by many radiating stream valleys and dropping to lower ground at the edges of the area.</li> <li>The upland plateau is open and exposed to the elements with limited shelter provided by the small, wooded valleys.</li> <li>Prominent hill summits (Carn Brea and Carn Marth) feature along the northern edge of the plateau.</li> <li>Human scale features include Cornish hedges, farm buildings, and mining structures.</li> </ul>	M	M-H
<b>Landcover (including field and settlement patterns)</b>	<ul style="list-style-type: none"> <li>The land cover pattern is varied, made up predominantly of pasture and rough grazing with some arable as well as horticulture on south facing slopes.</li> <li>The field pattern is varied with irregular, small to medium scale fields dominating lower areas, while in upland areas, larger fields form strong rectilinear patterns.</li> <li>There are some narrow areas of broadleaved woodland, scrub and bracken and fragmented patches of heathland.</li> <li>Limited areas of broadleaved plantations and woodlands (designated as CWS) are mainly confined to the river valleys in the south and south-east of the area.</li> <li>The landscape hosts two sites associated with the West Cornwall Bryophytes SSSI - situated on disused mining land.</li> <li>There are a range of other CWS-designated habitats scattered throughout, including heathland (e.g. at Carnmenellis and Carn Brea) and disused quarries.</li> <li>Reservoirs (also designated as CWS) form substantial areas of natural open water, the largest being the centrally located Stithians Reservoir.</li> <li>Settlement pattern is scattered, mainly focused on areas of former mining activity, with isolated dwellings, farms and former miners' smallholdings.</li> <li>The RLU also encompasses small parts of the towns of Cambourne in the north-west and Penryn in the east, as well as scattered villages and camping/caravan sites.</li> </ul>	M	M-H
<b>Historic landscape character</b>	<ul style="list-style-type: none"> <li>The HLC indicates that areas of 'Medieval Farmland' make up much of the landscape in combination with 'Post-Medieval Farmland' and 'Industrial Relict'.</li> <li>The landscape also comprises the HLC types of 'Upland Rough Ground' and areas of 'Ornamental' parkland.</li> <li>Areas within the northern, central and south-western parts of the RLU are within the WHS, containing relicts of copper and tin mines, including at Poldark mine, Wheal Basset and Wheal Grenville.</li> <li>Other designated heritage assets include the Neolithic hilltop enclosure, monument and late 18<sup>th</sup> century castle at Carn Brea, Iron Age rounds, and Bronze Age barrows and cairns.</li> <li>The historic cores of Constantine and Carn Brea are conservation areas.</li> </ul>	M-H	M-H
<b>Visual character (including skylines)</b>	<ul style="list-style-type: none"> <li>The landforms of Carn Brea and Carn Marth are prominent on the skyline from surrounding views including from neighbouring RLUs.</li> <li>The de Dunstanville / Bassett monument on Carn Brea forms a distinctive feature on the skyline above Redruth and along with the nearby castle, is widely visible across mid and west Cornwall.</li> <li>Engine houses and related mining heritage structures also punctuate skylines.</li> <li>The large turbines at Roskrow Barton, Nangitha Farm and Polkanuggo Farm are prominent on skylines, seen throughout the landscape and from adjacent RLUs.</li> <li>Occasional small-scale turbines (typically along the A394) breach local skylines.</li> <li>Goonhilly Downs Wind Farm (within RLU 03) is also distinguishable on the distant skyline from the south of the landscape.</li> </ul>	M-H	M

	<ul style="list-style-type: none"> <li>Pylons, masts and poles are prominent in places (including a communication mast at Four Lanes, standing at 152m).</li> </ul>		
<b>Perceptual and scenic qualities</b>	<ul style="list-style-type: none"> <li>Overall, this is a bleak and exposed landscape, despite the large number of isolated dwellings and man-made structures present.</li> <li>A large area in the north falls within The Carn Brea, Carnmenellis and Carn Marth AGLV with mining areas (including engine houses), stone walls and the prominence of Carn Brea noted as special qualities.</li> <li>Modern development and major transport infrastructure relating to the Camborne-Pool-Redruth conurbation reduce perceptions of tranquillity.</li> <li>The eastern edge includes major roads and development at Penryn, close to the sprawling settlement of Falmouth.</li> </ul>	M	M

### Overall Assessment of Landscape Sensitivity: Wind Energy

#### Sensitivity to new developments

<b>BAND A</b> (18-25m)	L	L-M	M	M-H	H
<b>BAND B</b> (26-60m)	L	L-M	M	M-H	H
<b>BAND C</b> (61-99m)	L	L-M	M	M-H	H
<b>BAND D</b> (100-150m)	L	L-M	M	M-H	H

**Summary of overall landscape sensitivity:** Although the relatively large scale landform of the plateau, simple landcover, presence of rectilinear field patterns, and strong human influence in parts could indicate a lower sensitivity to wind energy development, the prominent landform features and the remains of historic mining and quarrying industry visible on the skyline heighten levels of sensitivity.

The distinctive hill summits of Carn Brea and Carn Marth would be highly sensitive to any wind energy development. Areas along the A394 corridor (already influenced by wind energy development) would be less sensitive.

#### Overview of current development and associated future opportunities

The current wind energy developments within this landscape include two Band C turbines at Roskrow Barton (75m) and two Band B turbines at Nangitha Farm (45m). Other developments comprise single farm-based turbines, mainly scattered along the A394 road corridor in the south-eastern half of the RLU. These are two Band A turbines and three Band B turbines (in addition to those at Nangitha Farm), the largest being at Polkanuggo Farm (55m).

In relation to the Band C turbines at Roskrow Barton (which is located on a relatively small plateau), it may be appropriate to extend this development with an additional 75m turbine, as an odd number of turbines in this location would present a more balanced composition than an even number<sup>1</sup>.

### Overall Assessment of Landscape Sensitivity: Solar PV Developments

#### Sensitivity to new developments

<b>BAND A</b> (≤5ha)	L	L-M	M	M-H	H
<b>BAND B</b> (>5 to 10ha)	L	L-M	M	M-H	H
<b>BAND C</b> (>10 to 15ha)	L	L-M	M	M-H	H
<b>BAND D</b> (>15 to 30ha)	L	L-M	M	M-H	H

<sup>1</sup> As recommended in Scottish Natural Heritage (2017) Siting and Designing Wind Farms in the Landscape: Guidance. Version 3a available here.

**Summary of landscape sensitivity:** Although the presence of undulations in the landform and existing human influence may indicate a lower sensitivity to solar PV development, the sense of openness, largely pastoral/semi-natural character of the plateau and varied pattern of irregular, small to medium scale fields all heighten levels of sensitivity.

Areas containing important (designated) habitats would be highly sensitive to any solar PV developments. Enclosed valleys and areas along the A394 road corridor would be less sensitive.

#### **Overview of current development and associated future opportunities**

There are currently five operational solar farms, located mainly within the south-eastern half of the RLU, apart from a Band C solar farm at Pencoose Farm (14ha) in the north-east which is well hidden by hedgerows. Three solar farms are located along the A394 road corridor. These include a Band D development at Roskrow Farm (21ha) which despite its size is well hidden from view enclosed by hedgerows and woodland, a Band C development at Little Trevease (13ha) which is highly visible from along the A394, and a Band B development at Nancrossa Farm (10ha). A Band C development at Higher Tregarne (13ha) is located further to the south-east of the RLU within the Gweek to Constantine AGLV, and although it is well enclosed by woodland, can be overlooked from an elevated road to the east. It may be appropriate to extend the development at Nancrossa Farm into neighbouring fields, but not expanding to more than Band C in size and keeping away from the higher ground to the west.

Examples of current wind / solar PV developments in the landscape



Two 75m (Band C) turbines at Roskrow Barton Wind Farm and 21ha (Band D) solar development at Roskrow Farm.



Two 45m (Band B) turbines at Nangitha Farm.



A 34m (Band B) turbine seen in front of a 20m (Band A) turbine at Carnebone Farm.



13ha (Band C) solar development at Little Trevease.



13ha (Band C) solar development at Higher Tregarne.



10ha (Band B) solar development at Nancrossa Farm seen in context of a substation.

## Recommendations and guidance for future development within the RLU

### Wind energy developments

#### Overall recommendations:

- Explore opportunities to add an additional 75m turbine at Roskrow Barton. An extended development of three turbines will result in a more balanced composition than the current two turbines.
- Other areas along the A394 road corridor may be able to accommodate turbines up to Band C, where levels of tranquillity are low and the landscape is of a large scale.
- Occasional single turbines up to Band B could be considered within the wider landscape of the RLU (providing the guidance below is followed), although the scattering of turbines should be minimised to avoid significant cumulative impacts on landscape character.
- None of the landscape is identified as suitable for Band D turbines due to its sensitivities.

#### Strategic landscape guidance:

- Ensure that any new Band C turbines along the A394 road corridor are sited well away from any existing Band A or B turbines, so that the different size classes are not seen together.
- Ensure that any new developments are similar in terms of siting, layout and relationship to key landscape characteristics, so as to present a simple image that relates clearly to landscape character<sup>2</sup>.
- Avoid close juxtaposition of different turbine designs and heights within the same banding, aiming instead for a consistent design and height in any given area.
- Locate wind energy development away from the historically important Carn Brea or Carn Marth.
- Locate turbines in areas of larger scale fields, away from the complex small-scale historic landscapes.
- Ensure wind energy development does not dominate or prevent the understanding and appreciation of historic landmarks on the skyline, such as the monument and castle on Carn Brea and the many engine houses.
- Avoid siting turbines within the HLC Types of 'Upland Rough Ground' and 'Ornamental' parkland, which would be highly vulnerable to wind energy development.
- Consider views from local viewpoints and popular routes (e.g. from the viewpoint at the top of Carn Brea, and popular locations around the reservoirs) when considering the siting and design of wind energy development in the landscape – aiming for a balanced composition where development will be visible.
- Ensure wind energy development does not adversely affect the remains of the mining and quarrying industry (particularly around Carn Brea to the north and around Porkellis.), Carn Brea and Carn Marth and woodland valleys, as distinctive features of this landscape.
- Protect the factors which contribute to the scenic quality of the Carn Brea, Carnmenellis and Carn Marth AGLV (particularly the mining areas, engine houses, stone walls and the prominence of Carn Brea as a landmark) - ensure choice of site and scale of development does not detract from these.

<sup>2</sup> For further guidance in designing multiple wind turbine developments, see Scottish Natural Heritage (2017) Siting and Designing Wind Farms in the Landscape: Guidance. Version 3a available [here](#).

## Solar PV developments

### Overall recommendations:

- There may be opportunities to extend the 10ha solar farm at Nancrossa Farm into the neighbouring fields directly south-west of the current development towards the existing sub-station. Enhancing hedges and ensuring panels do not extend up against them will both provide screening and preserve the medieval field pattern. PV panels should be avoided on the areas of higher ground to the north and south-east.
- There are further opportunities to locate Band A, B and C developments within the more sheltered and folded land, including enclosed valleys and along the A394 road corridor. Woodland and Cornish hedges should be utilised to provide screening.
- None of the landscape is identified as suitable for Band D solar PV development due to its sensitivities.

### Strategic landscape guidance:

- The overall aim should be to make sure that solar PV developments do not become a key characteristic of the landscape (i.e. avoiding significant cumulative impacts on the RLU from multiple developments that would result in an overall change in landscape character)
- Multiple developments within the RLU should be of a similar scale and design (in terms of siting, layout, scale, form and relationship to key characteristics) to maintain a simple image and reinforce links between landscape characteristics and design response.
- Developments should be clearly separated so that collectively they do not have a defining influence on the overall experience of the landscape.
- Ensure that solar PV developments form part of the mixed farmland mosaic – rather than becoming a dominating land use.
- Aim to locate solar PV developments in gentle folds in the landscape where they will be less visible and therefore have less of an influence on landscape character.
- Avoid locating solar PV development in areas of remnant heathland.
- Preserve the strong field patterns, particularly relating to medieval fields, by minimising the number of adjacent fields that are developed and setting PV panels back from the edges of fields.
- Use existing landscape features, such as Cornish hedges and woodland to screen development wherever possible, ensuring that any additional screening provided is in character with the landscape.
- Avoid siting solar PV development within the HLC Types of 'Upland Rough Ground' and 'Ornamental', which would be highly vulnerable.
- Consider views from local viewpoints and popular routes (e.g. from the viewpoint at the top of Carn Brea, and popular locations around the reservoirs) when considering the siting and design of solar PV development in the landscape.
- Avoid locating solar PV development where it would be directly overlooked at close quarters, particularly side-on.
- Ensure solar PV development does not adversely affect the remains of the mining and quarrying industry, Cornish hedges enclosing the irregular field pattern of permanent pasture and wooded valleys as distinctive features of this landscape.
- Protect the factors which contribute to the scenic quality of the Carn Brea, Carnmenellis and Carn Marth AGLV (particularly the mining areas, engine houses and stone walls and the prominence of Carn Brea as a landmark). Ensure choice of site and scale of development does not detract from these.