

# Design and Heritage Statement

Bucks Farm

Cookley Suffolk

Solar installation



## Context

Bucks Farm is a very successful holiday business in Cookley near Halesworth, the Farm offers accommodation in converted farm buildings along with touring pitches for caravans, motor homes and tents in season. The farm offers a wide range of onsite activities including animal petting, pool, and games rooms.

The energy costs for the business have risen dramatically over the last few years – heating water, space along with the pool and lighting loads. The owners are seeking to reduce the power outgoings and carbon emissions by installing further solar generation capacity. This planning application seeks permission to place 200 panels in banks of two on frames above the grass. The host building Bucks Farmhouse is listed grade II by Historic England.

## Proposals

In approaching the design for this project, we have sought to minimise the impact on both the host dwelling and landscape by placing the proposed panels some 150 to the West on a small close mown meadow used for grazing sheep and touring tents, screened as it is from the main house by a stand of mature Quercus Robur and former farm buildings.





Panel location

## Heritage

The site is not within a conservation area however, as mentioned above the house is listed Grade II. The house was first listed in 1951, the official listing:

Farmhouse. Mid C16 main range with later C16 wing set forward to the left hand side forming L shape plan. Timber framed and plastered; the later wing has a red brick crowstepped gable end; plaintiled roof except rear of main range which is pantiled. 2 storeys. 3 cell main range. Various casement windows; boarded door to later wing. The main range seems to have had a cross passage entrance, now blocked. The crowstepped gable has corbelled eaves with short square pinnacles, original mullioned windows at first floor level with ovolo-moulded frames, a pair of blocked openings at attic level and an integral stack with 2 attached hexagonal flues. Internal stack to main range. There is fine exposed internal timbering.

Whilst the house is substantially timber framed, externally it is finished in pink render/plaster and brickwork.

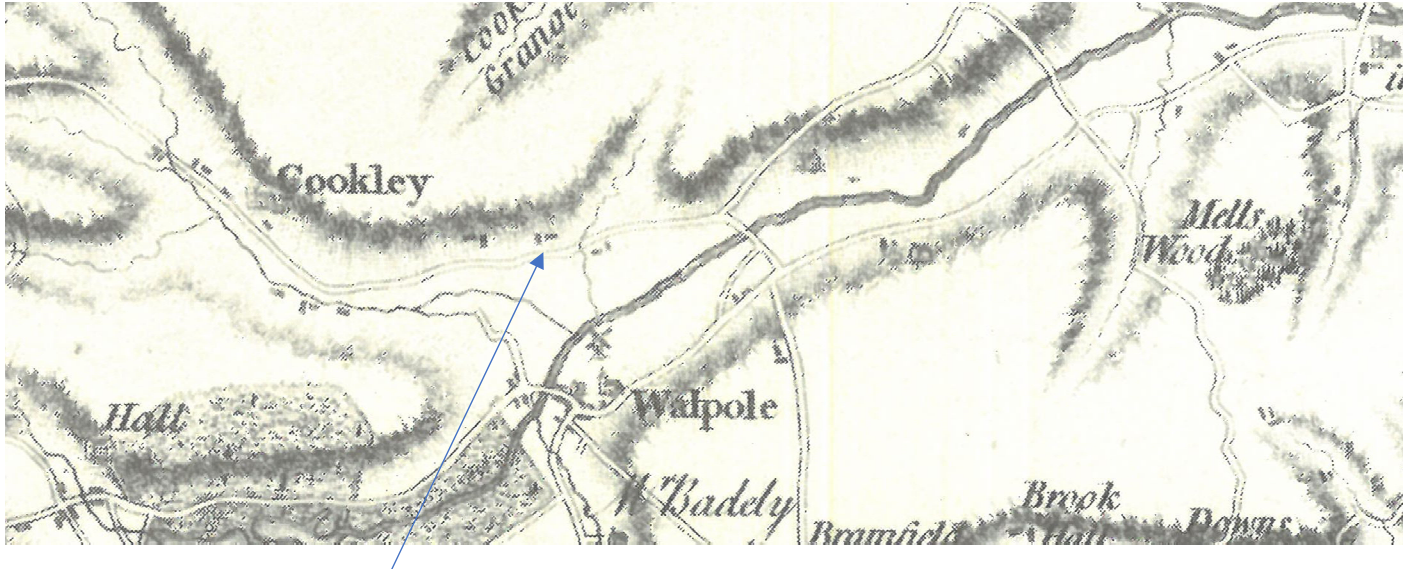
Bucks Farmhouse –

Southwest



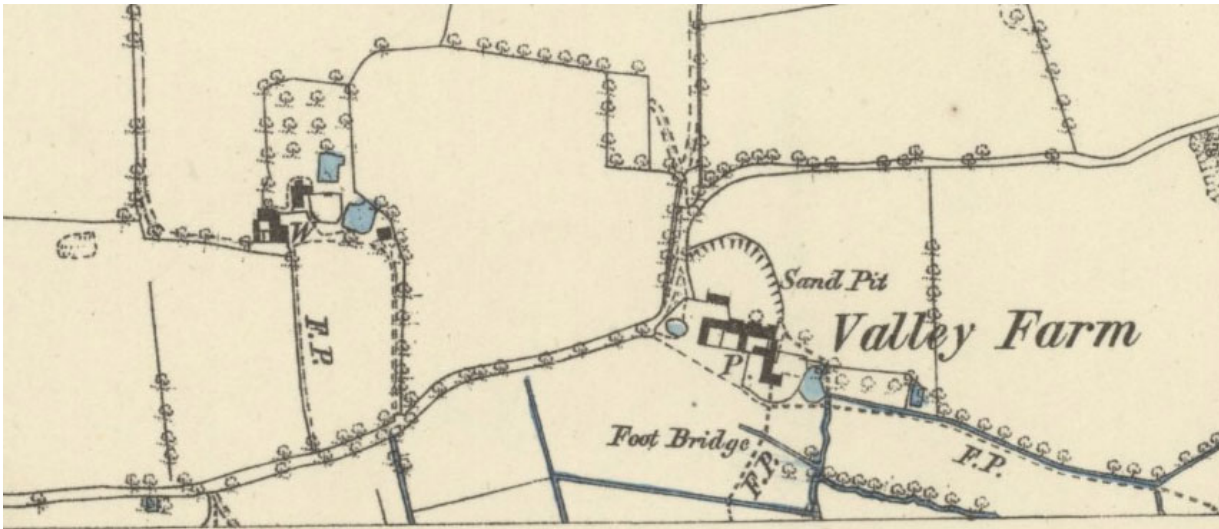
Bucks Farmhouse - South

## Historic mapping



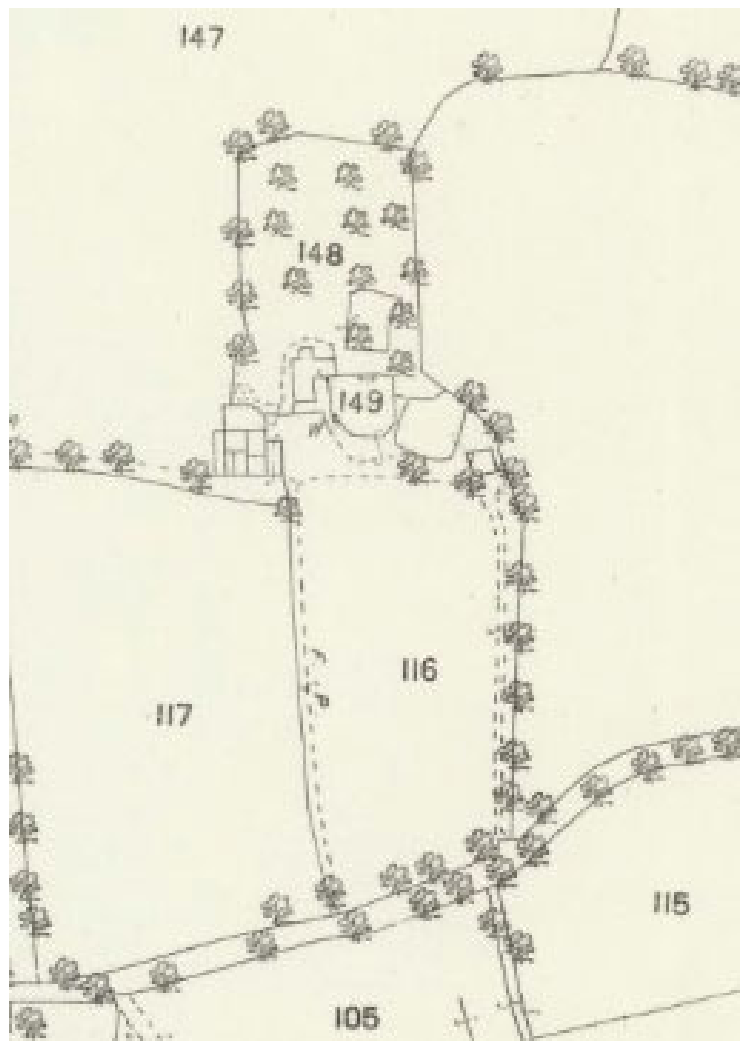
On Hodskinsons 1783 map and 1805 OS the parish of Cookley is shown with Bucks farm in existence, but unnamed



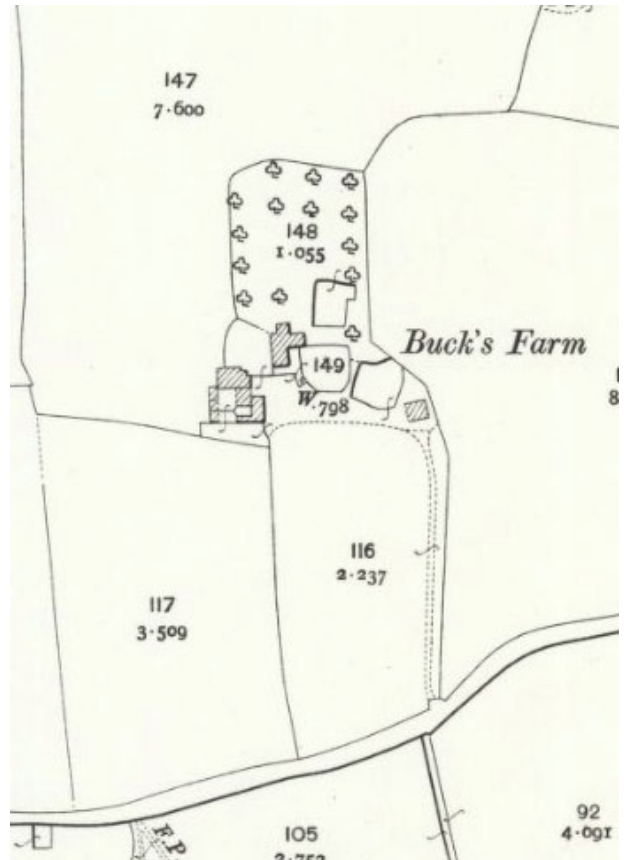
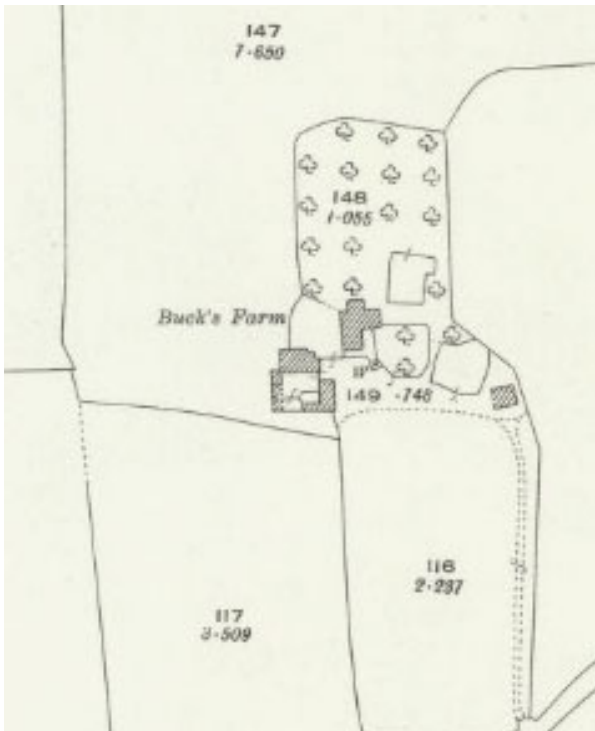


The 1882 OS shows Bucks Farm (not named at that time, West of Valley Farm) the house in its current form and original yard in a traditional form of a South facing courtyard.

The 1884 OS shows Bucks Farm (not named at that time, West of Valley Farm)

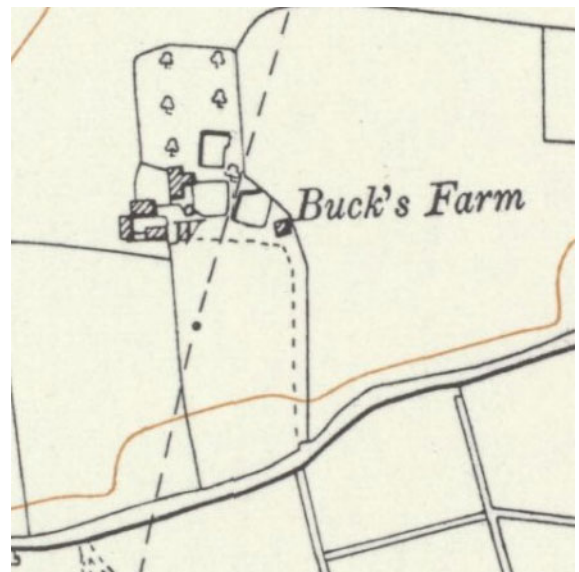


by 1903 the OS map shows more detail of the buildings



1927 the OS map shows no real changes.

1967 the OS map still shows no real changes.



The above OS mapping shows that little changed at Buck farm until the after the 1970' when most of the modern buildings where added. The change of use on the site form agricultural to tourism commenced in roughly 2001 after grant of permission to convert the first of several buildings for holiday accommodation – the destination has increased its offering progressively since..

### **Impact**

The panels have been deliberately placed as far from the listed building as practical, with the result that they will not be visible from the house or its immediate environment.

As such we do not believe the proposals will have a significant deleterious impact on the house or its wider setting.

### **Biodiversity Impact**

The panel are to be placed on a close mown grass paddock away from the RPA of the neighbouring Quercus Robur. We don't believe the proposals will have any impact on biodiversity, indeed in the long term, the green energy will improve the environment through carbon free energy production. The panels will be raised high enbought toallow the owners sheep to graze the grass around them.

### **Materials**

Materials – Galvanised steel frame with PV panels – see below for details

### **Flood risk**

The site is in zone 1 and therefore not at significant risk of flooding from surface or fluvial influence.

### **Surface water**

Not relevant



### **Planning history**

Conversion of redundant barn to holiday let

Ref. No: DC/14/1968/FUL | Status: Application Permitted

Conversion of redundant barn to holiday let.

Ref. No: DC/14/1969/LBC | Status: Application Permitted

Details as required by condition 3 of Planning Permission Consent DC/14/1968/FUL.

Ref. No: DC/15/4061/DRC | Status: Application Permitted

Details as required by conditions 3 and 4 of listed building consent DC/14/1969/LBC

Ref. No: DC/15/5201/DRC | Status: Application Permitted

Conversion of redundant agricultural buildings to self catering tourist accommodation and recreation room

Ref. No: C/98/1476 | Status: Application Permitted

Change of use of existing building to self catering tourist accommodation

Ref. No: C/01/0630 | Status: Application Permitted

Internal alterations to bathroom and bedrooms together with alterations to window on rear elevation.

Ref. No: C/97/0739 | Status: Application Permitted

Clearance of condition 2 of listed building consent C11/0968/LBC

Ref. No: C/11/1749 | Status: Application Permitted

Insertion of two dormer windows to side elevation and additional windows to attic. Internal alterations. (Renewal of listed building consent C05/2209)

Ref. No: C/11/0968 | Status: Application Permitted

Insertion of two dormer windows to side elevation and additional windows to attic. Internal alterations.

Ref. No: C/05/2209 | Status: Application Permitted

Erect 24 sow fattening house

Ref. No: E11910/3 | Status: Application Permitted

Bungalow with garage, and pig fattening house

Ref. No: E11910/1 | Status: Application Permitted

Erect farrowing house

Ref. No: E11910 | Status: Application Permitted

### **Highways**

Parking is in the front courtyard - unchanged.

Design, Access, Heritage statement



Brooks Architects Ltd - 2024

# TWINPLUS MODULE SERIES

HIGH EFFICIENCY MONO-PERC M6-10B-R

# 535-555W



## OUTSTANDING PRODUCT PERFORMANCE

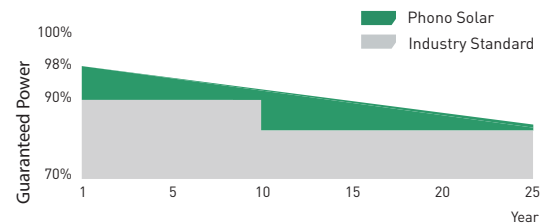
- Competitive high-temperature performance with ameliorated temperature coefficient
- Minimized power loss in cell connection
- Better performance under shading effect
- Decreased nominal operating cell temperature to  $45 \pm 2^{\circ}\text{C}$
- Higher power generation with multi-busbar and half-cut technology

## TRUSTWORTHY QUALITY AND RELIABILITY

- Guaranteed 0~+5W positive tolerance secures reliable power output
- 5400Pa maximum snow load, 2400Pa maximum wind load
- Optimized electrical design lowers hot spot risk and operating current

## PID RESISTANT

- Industry-leading cell processing technology and electrical design ensure solid PID resistance



12-year Product Warranty

25-year Linear Performance Warranty

## MANAGEMENT SYSTEM CERTIFICATES

IEC 61215, IEC 61730

ISO 9001:2015 / Quality management system

ISO 14001:2015 / Standards for environmental management system

ISO 45001:2018 / International standards for occupational health & safety



Bloomberg Tier<sup>1</sup>  
NEW ENERGY FINANCE



## ELECTRICAL TYPICAL VALUES

Model	1000V	PS535M6-24/TH		PS540M6-24/TH		PS545M6-24/TH		PS550M6-24/TH		PS555M6-24/TH	
	1500V	PS535M6H-24/TH		PS540M6H-24/TH		PS545M6H-24/TH		PS550M6H-24/TH		PS555M6H-24/TH	
Testing Condition		STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Rated Power (Pmpp)		535	398	540	402	545	405	550	409	555	413
Rated Current (Impp)		12.97	10.48	13.06	10.55	13.15	10.63	13.24	10.70	13.55	10.77
Rated Voltage (Vmpp)		41.25	37.98	41.35	38.07	41.45	38.16	41.55	38.25	41.64	38.34
Short Circuit Current (Isc)		13.52	10.92	13.62	11.00	13.72	11.09	13.82	11.17	13.92	11.25
Open Circuit Voltage (Voc)		49.29	46.53	49.39	46.62	49.49	46.72	49.59	46.81	49.69	46.91
Module Efficiency (%)		20.71		20.90		21.10		21.29		21.48	

STC(Standard Testing Conditions):Irradiance 1000W/m<sup>2</sup>, AM 1.5, Cell Temperature 25°C

NOCT (Nominal Operation Cell Temperature): Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20°C, Spectra at AM1.5, Wind at 1m/S

## MECHANICAL CHARACTERISTICS

Cell Type	Monocrystalline 182mm x 91mm
Dimension (L×W×H)	Length: 2278mm (89.69 inch)
	Width: 1134mm (44.65 inch)
	Height: 35mm (1.38 inch)
Weight	29.0kg (63.93 lbs)
Front Glass	3.2mm Toughened Glass
Frame	Anodized Aluminium Alloy
Cable (Including Connector)	4mm <sup>2</sup> (IEC), (+):450mm,(-):250mm or Customized Length
Junction Box	IP 68 Rated

## TEMPERATURE RATINGS

Voltage Temperature Coefficient	-0.28%/°C
Current Temperature Coefficient	+0.05%/°C
Power Temperature Coefficient	-0.35%/°C
Tolerance	0~+5w
NOCT	45±2°C

## ABSOLUTE MAXIMUM RATING

Operating Temperature	From -40 to +85°C
Hail Diameter @ 80km/h	Up to 25mm
Front Side Maximum Static Loading	5400Pa
Rear Side Maximum Static Loading	2400Pa
Maximum Series Fuse Rating	25A
PV Module Classification	II
Fire Rating (IEC 61730)	C
Maximum System Voltage	DC 1000V/1500V

## PACKING CONFIGURATION

Container	20' GP	40' HQ
Pieces/Container	155	620

## ELECTRICAL CHARACTERISTICS

