Planning Application Specification

This Planning Application Supporting Document is set out to provide key details regarding the proposed installation of a 20.00 kilowatt solar photovoltaic panel array.

General Statement

As part of the EU Renewable Energy Obligations the UK is committed to reducing both its CO2 emissions and reliance upon fossil fuel energy sources by 2020 and by a much greater extent by 2050. This provides significant stimulus for regional policy to encourage a diverse energy mix and one that will utilise the resources available within the region and the economic and social context that the corresponding energy provision will operate within.

This proposed development, for a solar photovoltaic array (PV array), will sit within the wider context of renewable energy provision, but it will also integrate with a number of other regional elements. The PV array is a grouping of PV modules each one designed to absorb sunlight and, via interconnected cables, convert this into electricity and export this to the National Grid, via suitable control and safety equipment. Whilst there are sub regional variations, East Anglia benefits from average solar irradiation levels that are similar to those experienced in the SW of England and to those of Northern and Central Germany (where PV array's are relatively widespread).

East Anglia has significant diversity across its economic sectors, although it remains a largely agricultural area. As with many rural economies, an energy infrastructure that is capable of supporting economic growth whilst being of relatively low impact is difficult to achieve, but Solar PV does provide a number of positive attributes. Besides requiring no fuel source during operation and being silent in operation, the relative low lying design of the solar arrays (with an average height of less than 2.8m), provides for low visual impact. It is considered that this may be a key consideration given the importance of tourism to the local economy, the natural low lying topography and the overall attractiveness of the countryside to many of the existing inhabitants of East Anglia.

It is recognised that District Council is a signatory to the Nottingham Declaration which acknowledges the increasing impact that climate change will have on their community and that the Council is committed to tackling the causes and effects of a changing climate on the district. This is reinforced by the objectives and targets of the District Council Sustainable Energy Strategy. Achieving more sustainable construction will make a significant contribution to these efforts and targets.

The installation of renewable energy, such as this relatively small solar power array, will have a significant impact towards the achievement of the District Councils Sustainable Energy Strategy.

Proposal Overview

An array of solar photovoltaic panels sited on non-agricultural land will provide a supply of renewable electricity to the existing farm dwellings.

The system will comprise forty solar panels standing in portrait two high and twenty three wide sited on galvanised steel and aluminium ground mounted pylon embedded framework.

The solar array will provide a constant source of renewable energy to the farm and export to the grid all surplus electricity.

Estimated Generation	20,000 kilowatts hours per annum
Capex Installation Cost	[redacted]

Land Specification

Site Address	Cavenham House Cavenham IP28 6DF
Proposed Development Area	41 square meters
Lease / Freehold	Owned wholly by Mr & Mrs Hargreaves

Installation Specification

The total structure occupying area of the solar PV array will be no larger than 105m^2

Total structure occupying depth	2.4m
Total structure occupying length	53m
Total structure occupying height	2.3m

Placement	See enclosed block map
Panel array format	Portrait format - double row by two panels high
Height at front of array	200mm
Height a rear of array	2.3m
Angel of panel array	39°
Panel dimension	Width - 994mm x Height – 1,652mm
Panel Rated Power	305 kilowatts each panel
Panel Manufacturer	Suntech 305 watt Panels
Mounting Manufacturer	SunFixings
Mounting type	Ground mounted galvanised steel and aluminium post
Connection to grid	Connection to existing three phase supply no more that 220 meters from the site of the installation
Connection from Array	The connection from the array to the customers Fuse Board will be via a subsurface 25mm armoured cable in 75mm.