

DESIGN and ACCESS STATEMENT

Sandiway Farm

Antrobus

CW9 6LD

Solar PV Planning Proposal

12 September 2022

Introduction

We live in a high CO2 producing house. We would like to remedy this by installing a solar PV system.

Sandiway Farm used to be even much worse! There would have been enormous amounts of coal burnt in prior generations to provide heating, with fireplaces even in the bedrooms! Thankfully, a large proportion of our heating/hot water requirement now comes from electricity. However, our electric cost has become almost unaffordable for all, but a fortunate few.

We want to change all this and do our bit for the Environment. No one can do everything on Climate Change. We can though all do a bit. We also want the property to be affordable for the many, and not just the few.

This proposal would be a major step to making a big CO2 producing property well on the way to being carbon neutral. We are lucky that we can at this point in time afford the significant upfront capital outlay for the system's substantial cost. There are no grants available, so the cost falls 100% upon us. The next owner of the property may not be so fortunate as us. So, we want to grasp the opportunity and future-proof Sandiway Farm's sustainability for ourselves and subsequent generations to come. To enable the many to enjoy this wonderful heritage asset in a climate-challenged world.

Purpose

The aim of this short statement is to support the application for planning permission and Listing Building consent for a ground-mounted solar panel array to the rear of the Listed building. Planning permission is required as the proposed array will be more than the threshold of 9m².

Listing Consent Guidance

Having researched Historic England's guidance and taken advice, we understand it is important to ensure that the relationship between the Listed Building and its surroundings is maintained, and any new structure does not obscure or detract from views or harm the character and appearance of the Listed Building. Listed Building considerations include making sure the design, size and scale of our proposed solar panel array is sympathetic with the Listed Building.

Background to the Listing and historical designations

Sandiway Farm was first Listed on 27 August 1986 with number 1139176. A search has not identified any other historical designations.

It is a Grade II listed farmhouse built in c1820 with Flemish bond brown brick and grey slate roof. The house comprises two storeys with recessed sash windows and stone cills, stone plinth, painted cornice, door of fielded panels in Tuscan case with half-columns and open pediment.

The house forms part of the original dairy farm which has since seen the close-by milking parlour buildings being converted into four dwellings which are not listed. Our farmhouse curtilage includes a large lawned garden, drive, outbuildings, tennis court and menage; making a curtilage total of around 2 acres. The curtilage is bounded by Sandiway Lane to the east, and the property's five paddocks to the other three sides which total around 6 acres. Scotch Hall Lane lies to the south along perimeter of two of the paddocks. The property sits in a rural location with no developments – other than the converted dairy parlour buildings known as Sevenoaks Court – nearby.

We have lived in the house for 25 years. When we took ownership of the house in 1997 it was in extremely poor condition, having been neglected by its former owner occupants with extensive flooding, damp, and dry rot damage present in the house. The property contained only a few mixed quality trees and few hedges. We have over the years invested considerable sums sensitively restoring the house; with particular care and attention to its 1986 Listing, as well as planting some 30 or so trees and 15 or so hedges.

For example, when we moved into the house, it had poor quality UPVC windows on the back west facing wall. The UPVC has been replaced with in-keeping hardwood sash windows and a period-style orangery. We have throughout used the *Vale Royal Borough Council Guidance for Historic and Listed Building owners* to help us with our projects, as well as keeping integrally involved English Heritage and the CWAC conservation officers.

The house is a nice example of a traditional period farmhouse, typical of the area, which has been sensitively maintained and restored by us, of which we are immensely proud. The most prominent and best-preserved Georgian feature of the house (which we inherited when taking ownership) remains the front elevation of the house facing Sandiway Lane. The remaining elevations are unremarkable, with the rear west facing having been adapted and modernised in recent history.

Planning history

Various planning and Listed building consents were obtained over the years for extending the driveway (for road safety reasons) and a tree and hedge-screened tennis court to the rear of the house. Additionally, planning consent was obtained for the two hedge-screened timber stable blocks and a hedge-screened ménage to provide facilities for our horses. We are pleased to maintain the working farm feel to the property with horse and sheep livestock that graze the five grass paddocks. In March 2022, we received consent to replace a failing conservatory with an orangery-style oak frame structure. This project will be completed in a few weeks' time.

Reason for the works

We have been incredibly lucky in that we have been able to spend considerable sums preserving and maintaining this Grade II listed property over the last 25 years. However

– despite our best efforts to insulate and take other energy performance measures – the house’s Energy Rating remains really poor at F/25 compared to the England and Wales average of D/60. This results in an annual CO2 production of 25 tonnes compared to the UK average of 6 tonnes. The EPC recommends further changes which over time could reduce CO2 production to 9.6 tonnes pa. A key measure recommended by the EPC is to install solar PV to make the property more self-sufficient on its 32,000kWh annual electricity consumption (including planned EV charging). We are advised that we would require a c37kWp system made up of 69 x 540W panels, with predicted annual generation of 32,000kWh, to balance our consumption needs across the year. If we became 100% self-sufficient on electricity, Sandiway would produce around 40% less CO2. And once the switch has been made to EVs from our 4 combustion engine cars, a further 10 tonnes of CO2 production will be eliminated, equivalent to a further 40% of the property’s annual CO2 production.

As mentioned, we have a long-term aim of making the property carbon neutral. If we take no action, our soaring electricity bills will make the house unaffordable for us and for future generations. The PV system will enable us to improve the house’s environmental and financial sustainability.

System location and design

Our two rooflines are east and west facing and therefore sub-optimal for locating solar panels. We also feel that roof-mounted panels would be inconsistent with the Listing and would harm the character and appearance of the Listed Building. This makes a south facing ground-mounted system in a secluded and unshaded spot in the rear of the garden curtilage - an area which is already well-screened from the house by a 2.5m evergreen laurel hedge – the logical site for the array. The system’s design will require DNO approval from SP Energy for connection to the grid. Thus allowing surplus generation to be exported to the grid, helping to make our local community greener.

Attached our specifications for the proposed panel model and mounting frame.

The 69-panel array will comprise single height rows of panels mounted side-by-side. The nine rows will comprise 2, 3, 4, 6, 8, 11, 11, 12 and 12 panels totalling the 69 units. This overall array shape – which will form a right-angled triangle - will fit within the garden curtilage on the other side of the laurel hedge to the house. The frame will allow the panel bottoms to be mounted 200mm above ground level. The panel dimension is 2279 x 1134 x 35mm. At a mounting angle of 30 degrees, the panel tops will be only 1159mm above ground level. So, the whole array will have an exceptionally low height profile further reducing its visual impact.

Impact on the heritage significance and environment

The Listing’s most significant heritage aspect is the house’s front elevation. All aspects of the house remain completely undisturbed by the proposed solar array. In no way will the works affect the legibility, appearance or character of the main house from any direction or elevation.

As illustrated in the appended photos, the proposed array site is not visible from any of the surrounding two lanes (which at any point will be a minimum of 70m distance from

the array site) due to existing and mature multiple high hedges and tree screening. The array mounting structure will be only 1.2m above ground level at its maximum height. It will not be visible to the public from the two lanes due to the various natural screenings, including continuous hedges around the property's perimeter that range from 1.75m to over 2.5m in height.

The array structure will occupy an area of approximately 0.06 acres within the 2-acre curtilage, representing a de minimis 3% change of utility for this peripheral lawn area. The ground the panel array frame sits on will be left uncultivated, thus offering a natural refuge to encourage wild-life and biodiversity. The array will have minimal environmental impact as the panels and mounting frame will be easily dismantled and removed from site at the system's 25-year end of life.

There will be no impact from either the PV array on viewpoint aspects from the public realm. Nor will the proposals have any adverse impacts upon the environmental setting of the property.

Summary

This proposal makes a profoundly serious contribution to the Climate Change challenge. It is a much bigger system than a typical 16 panel array on the average sized house with a floor area of 90m². However, Sandiway Farm's floor area is now almost 400m². This makes our 69-panel proposal proportionate given our property's 4.5x larger scale than the average house. Additionally, future EV charging capacity is being prepared for. So, we are future proofing the sustainability of the property for us and future generations.

We believe that the relationship between the Listed Building and its surroundings is maintained, and the proposed solar PV will not obscure or detract from any views or harm the character and appearance of the Listed Building.

In summary, the proposals are not regarded as having any harmful impact on the historic environment or setting. That the works proposed represent a positive strategy for the conservation, sustainability and enjoyment of a heritage asset, which otherwise is at risk of being environmentally and financially unsustainable.

We respectfully urge CWAC to quickly approve this proposal in light of the worsening energy and climate crisis we all find ourselves in. CWAC will also be aware that there is a long lead time on renewables projects at the present time. Every day, week and month matters for our Mother Earth.

Thank you

Mr & Mrs R Hemming, owner-occupiers of Sandiway Farm for 25 years.

Appendix

Views taken on 3 September 2022, immediately following our annual hedge cutting, from all points around and within Sandiway Farm.

View from the proposed array site looking east towards the house 50m away



View from a lawn looking SW towards the array site



View from the main driveway looking south towards the array site



View from Sandiway Lane looking SW towards the array site



View from Sandiway Lane looking west towards the array site



View of the house looking west from Sandiway Lane, with the array site 50m behind the house



View from Sandiway Lane looking NW towards the array site



View from Scotch Hall Lane looking north towards the site



View from Scotch Hall Lane looking east towards the array site

