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Design and Access Statement for an application to install 40 ground mounted Solar Panels.

Application – Erection of 40 Solar Panels

Date: 10 October 2023

Site – Land adjacent to the Barn, Portbury Lane, Portbury, BS20 7TW

Compiled by: Mr N Cheek & Farrell Design & Build

Use:

The application site is a field used for agriculture purposes which is now under the same ownership as The Barn, a residential property immediately adjacent. See plan.

Scope:

The proposal is to erect 28 no. Photovoltaic Solar Panels on a ground mounted frame. Power generated by the array will be directed to The Barn, adjacent, and under the same ownership, and will be connected to the National Grid Network at that point. Agricultural, (grazing), use will continue on the land.

Scale:

The total area of the installation will be 40sq metres.

Justification for the PV array:

This is an opportunity to install an array of Solar Panels, with battery storage, which will make a worthwhile contribution to reducing energy demand both to the Barn and, through export, the demand upon the National Grid Network. The Barn is already served by an Air Source Heat Pump installation that provides both heat and hot water to the property. This proposal, along with battery storage equipment, will mean that the property will be completely self-sufficient in energy for a substantial part of the year.

The Barn is located close to Birchwood Woods, and although it has a South facing aspect it is not practicable to install solar panels on its roof, due to the significant shading that will occur even at midday, and especially during winter periods. The land adjacent, by comparison, will not suffer from the same degree of shading due to being sited at the northern end of the site – see indicative images.

Setting:

Neither the Barn nor the adjacent Birchwood Cottage is listed. The field adjacent sits outside the Village Boundary of Portbury and is within open countryside in the Green

The Barn Portbury lane BS20 7SP

Belt. Nevertheless, due to the extensive screening provided by existing natural hedges, the setting of these buildings will not be impacted by the proposal.

Landscaping:

None is intended nor thought necessary as the panels will sit behind established hedges on a site sloping away from the Barn, screened from Portbury Lane by further hedges. See photos.

Appearance:

A Landscape Visual Assessment has been carried out for other applications on this site and is considered to be appropriate for this application and has been submitted along with this application. The appeal case for the erection of a garage on this site, 18/P/3940/FUH acknowledged the relevance and validity of this assessment. The Inspector's appeal report concludes that a garage on the site next to the house has little visual impact on the surroundings and does not harm the openness of the green belt. The site of the proposed PV array will not be visible from the road, nor from adjacent footpaths or from Birchwood Cottage. It will only just appear in fleeting distant views from the footpath on Old Failand Lane linking Waites Barn through Oakham Farm to Portbury Lane. The photographs taken in association with the Landscape Visual Assessment, as defined in the viewpoint schedule remain relevant and may be used to evaluate this application.

Access:

The site is located off Portbury Lane from a private track which is clear and unobstructed. There are no implications for future access to either The Barn or Birchwood Cottage, which shares access from Portbury Lane.

Flood Risk:

The site is not within a flood zone. No hard standing is proposed and thus there will be no risk from or impact upon flood risk.

Impact upon the Green Belt:

This proposal creates minimal harm to the Green Belt by virtue of its well screened setting. Whilst it will be possible to glimpse the edge of the array when walking the footpath linking Waite's Barn to Portbury Lane via Oakham Farm, this will be in a distant view already impacted by the large Agricultural Building within Oakham Farm itself. See photos. From other footpaths on high ground approaching Waite's Barn the view is very distant, see photos, and will be hard to recognise as a structure, these views being dominated by other large buildings. It would be possible to plant hedging to the east side of the field in which the array would sit so as to increase screening even further. If this is carried out, then the only position from which the array would be seen would be directly outside the gate to the field. See photo.

When viewed from outside the immediate vicinity of The Barn this array of panels would have much less impact than, say, a stable or barn in the same position. If such a structure were to be erected, with solar panels added to the roof, this would be a much more visible structure than panels which are mounted on the ground. The site is set within a field that is well hedged and is sloping, which affords almost complete screening from locations where it might otherwise be in view. The proposer is willing to accept a management agreement for the hedges that surround the site. No

vegetation will be removed in order carry out the installation of the array, which will be mounted on a metal framework without foundations. The structure supporting the array will therefore be temporary and capable of easy removal.

Location considerations.

When selecting a site to locate a PV array the use of the roof of The Barn was considered. This area affords less space and would be a significant feature that would be out of keeping with the restoration that has so far already been carried out to this building. Although not listed this former barn is worthy of recognition, being part of the former farm complex that stood on this site. Details of this can be found in old OS maps and have been pointed out in a previous application for this site. The roof of The Barn has undergone several stages of repair and renewal over its life, with a mix of concrete and other tiles on its roof. When converted to a residential building the roof material was unified and old roman tiles were used throughout to give the property an appearance in keeping with its age – see photo. If a solar array were to be fitted to this roof it would not only look out of keeping but would also potentially block light from entering the property through roof lights on that side.

The Barn sits tightly under Birchwood Plantation and is a very shaded location. Sun shadow predictions show the house to be almost fully shaded by 1.30pm in the winter, see sample photo. This would significantly reduce the output of the proposed solar array until periods of higher sun. Consequently, alternative sites were considered and a location on the field to the east and north of The Barn was considered to be more suitable due to its greater exposure to direct sun and its boundary screening. The field is in the same ownership as that of The Barn. Whilst it is difficult to accurately forecast the additional power output that would be available an approximate calculation suggests that the additional output, on a like for like basis, to an array mounted on The Barn roof would be 200kWh/yr, and with a larger array the additional output would amount to almost 2mWh/yr. When compared to an average daily consumption of houses of 10kWh/day it can be seen that the proposed site would make a much more significant contribution to carbon reduction.

The benefit of this proposal in this location is that it will make The Barn virtually self-sufficient in energy and will at times mean that excess electrical power is exported to the National Grid, thus reducing total carbon emissions. Grazing of sheep continues on the land, see photo, and the presence of a PV array will not inhibit this.

In considering whether the proposal would be acceptable in the green belt the application for a similar array of PV cell at Brockley Court Farm, 21/P/1552/FUL was studied. In this case the alternative was to mount solar panels on a listed building, which would be clearly out of keeping. Nevertheless, the environmental benefit in installing renewable energy on that site was considered sufficient to outweigh the planning restrictions in the green belt. This case is directly relevant to the proposals at The Barn.

Policy Considerations.

The principal planning points made in this report are as follows:
In 2019 the Council declared a climate emergency stating that it is essential that

renewable sources replace fossil fuels.

The Council has a target to achieve significant reduction in carbon emissions. Planned developments should cause minimal visual impacts.

The NPPF gives positive encouragement for renewable energy projects whilst reiterating the importance of protecting important landscapes, heritage, and ecological assets. Paragraph 83 of the NPPF highlights that decisions should enable the development and Report template 20/P/0620/FUL diversification of agricultural and other land based rural businesses. Paragraph 148 states LPAs should support proposals for renewable and low carbon energy and infrastructure. Paragraph 154 says it should not be necessary to justify the need for renewable energy and applications should be approved if the impacts are or can be made acceptable.

This guidance supports the planning practice guidance for renewable and low carbon energy (DCLG July 2013) which recognises that the deployment of large-scale solar farms can have a negative impact on the rural environment, particularly in undulating landscapes but there will be circumstances where the visual impacts can be properly addressed with effective screening and appropriate land topography of the area if planned sensitively (paragraphs 26 -28). This approach combines with the detail provided through the UK Solar PV Strategy (April 2014) which sets out as one of the core principles that solar development should be appropriately sited, give proper weight to landscape and visual impact, heritage and local amenity. To supplement the published guidance, the Governments latest approach to solar developments is set out in the letter from Greg Barker MP, then Minister of State for Energy and Climate Change to Local Authorities dated 22 April 2014 which stresses that growth of solar PV in the UK is to be focused on domestic and commercial roof space but there is still place for larger-scale field based solar in the UKs energy mix provided it is sensitively placed.

These principles are included in Sites and Policies Plan policy DM2: Renewable and low carbon energy where proposals will be supported in principle subject to a series of measures, and the NSC Solar Photovoltaic (PV) Arrays SPD. As Policy DM2 and the SPD are in accordance with up to date government guidance and best practice they are given significant weight in the assessment of this scheme.

It is noted therefore that the development of ground mounted solar PV development in 'appropriate' locations is supported by current planning policy and guidance. The NPPF, accompanying National Planning Policy Guidance and the North Somerset Development Plan comprising the Core Strategy, Sites and Policies Plan Part 1 the North Somerset Landscape Character Assessment, Biodiversity and Trees, and Solar Photovoltaic (PV) Arrays SPDs provide a policy framework through which 'appropriate' locations can be assessed.

It is therefore considered that with appropriate landscape management there will be no significant visual impact or harm to the character of the area and that the topography and layout of the site together with the existing screening will ensure there are no extensive views from roads, or public rights of way. The application therefore accords with Policy CS5 of the Core Strategy.

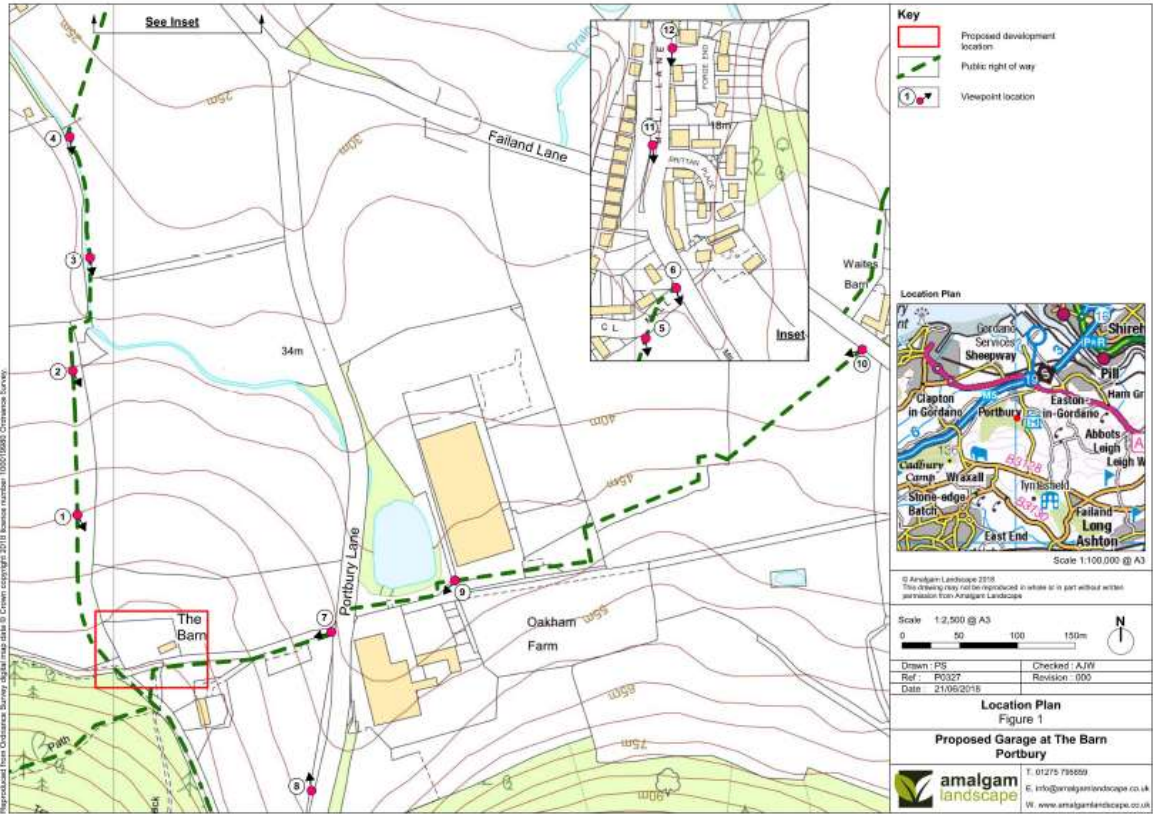
Photos



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