



Design and Access Statement

Small Domestic Ground-Mounted Solar Array for installation on Paddock land at:

Henrwst Smithy, Iscoed, Higher Wych, SY13 3AU

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1/ Purpose of this Design, Access and Supporting Statement

1.1 The purpose of this Statement is to provide, in addition to the Application itself, a better understanding of the scheme, which involves the installation of a Small Solar Panel array (of a Domestic scale) to provide electricity to the domestic property known as Henrwt Smithy.

1.2 The array will sit on low ground-mounted frames in a paddock owned by the client, within the client's Ownership Boundary, but outside any Listed Curtilage, as detailed on the attached plans.

1.3 This Statement will help to show how regard has been given to National Planning Policy and Welsh Planning Policy and other relevant guidance, including habitat, highways and visual.

The following support the Proposals in principle, location and in terms of likely impacts upon the environment:

Planning Policy Wales Edition 6 (2014)

A Low Carbon Revolution - The Welsh Assembly Government Energy Policy Statement (2010)

Energy Wales – A Low Carbon Transition (2012)

Practice Guidance – Planning Implications of Renewable and Low Carbon Energy (2011)

1.4 We hope that this document and attachments will assist the Local Authority and the public on the merits of the project.

2/ Reason for this Application

2.1 Installation of Ground Mounted Solar Panels is actually covered under Permitted Development (PDR) under the Town and Country Planning Act (as Amended) for an installation up to 9m². The proposed installation is larger than this, hence the need for this Application. The installation is also on paddock Land, so this also affects the use of PD Rights

2.2 The property is also Gd2 Listed and this prevents the solar array from being roof mounted. A paddock installation was therefore the only visible location for installation.

2.3 The installation meets all other aspects of Permitted Development in that the installation will be under 4m in height (it is only 2.4m high) and it is more than 5m from the a property boundary.

3/ Understanding the scale of the installation

3.1 It is important to understand the scale of the installation. The system proposed for installation is a domestic sized array (6kW). This size of array is installed to many thousands of domestic properties throughout the UK.

3.2 Public often confuse ground-mounted Solar panels with Solar Farms. A Solar Farm involves installation of thousands of Solar Panels across large swathes of Agricultural land totalling tens or hundreds of acres.

The proposed installation includes a mere 16 solar panels, and covers an area of only 22m² (a two-hundredth of an acre). Its scale can be seen on the attached plans. The array is dwarfed by the size of the paddock it will sit within.

4/ Location and position

4.1 The site is located in the hamlet of Iscoed, Higher Wych. The area is predominantly agricultural and is considered rural.

4.2 There are no immediate neighbours to talk of.

4.3 The wider area is occupied by farms and farming-orientated industry. There is open farmland to the North, East, South and West. This is demonstrated in the Satellite Maps below, showing the Solar Array to scale denoted by a red rectangle.

Satellite image showing the site, scale of proposed installation and the wider area.



Zoomed in Satellite image showing the scale of proposed installation in the paddock. The array footprint shown in red is to scale.



4.4 When looking to position the array, care has been taken to provide a visually low-impact installation. Instead of designing the installation over 3 rows high (approx. 3.6mtrs high) it has been decided to limit its height to a double-row array. The overall height (including frame) is approximately 2.4 mtrs, as shown on the attached plans.

5/ Neighbour notification / support

5.1 As noted, the client lives in a rural location and does not have residential neighbours to speak of. There is a neighbouring farm to the East of the property, and the farmer is aware of the proposal. He supports it.

Due to the small scale of the installation and lack of any neighbours we have not have sought to canvass opinion from the wider area.

6/ National and Local Planning Policy

Policy Context

6.1 Renewable energy is now a key global topic, and there is a consensus at a World, European, and National level that efforts to reduce our reliance upon fossil fuels are of critical importance.

This can be seen from international legislation and policy from the UN and IPCC, numerous

aspects of National legislation, OFGEM reports, and National Planning Policies.

Wales had a requirement to reduce greenhouse gas emissions by at least 40% by 2020, relative to 1990 levels. The UK Government's current target is to reduce emissions by 30% and generate 20% of electricity demand from renewable sources by 2020.

In January 2014 the European Union committed to reducing its greenhouse gas emission by 40% by 2030 (compared to 1990 levels) and a new binding target of 27% of energy generation to come from renewable sources from 2030 has been adopted. This is with a view to the EU cutting its greenhouse gas emission by 80-95% by 2050. It is anticipated that future UK energy policy and legislation will reflect these new commitments.

UK Energy Policy have included a range of Energy White Papers which have all recognised the important contribution that the development of renewable energy can make towards addressing climate change and achieving the targets that have been set at an international level.

The Climate Change Act 2008 put in place legally binding targets for reducing greenhouse gas emissions by 2050. This includes the requirement of the Secretary of State to *"ensure that the net UK carbon account for the year 2050 is a least 80% lower than the 1990 baseline"*.

The UK Renewable Energy Strategy was published in 2009 by DECC and aims to facilitate a radical increase in the generation of electricity from renewable sources such as solar farms, to meet the ambitious targets relating to climate change and ensure energy security set out in the above national and international legislation. In terms of specific targets, the strategy notes that renewables could meet in excess of 30% of the UK's energy demand by 2020, with renewables share of electricity generation a record 19.2% in 2014, an increase of 4.3% on 2013

As a result, it is important that Planning Authorities acknowledge the national and international position in determining planning applications as encouraged in Paragraph 12.8.1 of PPW:

"Our approach is to reduce energy consumption and improve energy efficiency first and maximise renewable and low carbon energy generation at every scale across Wales. This is part of a concerted effort to tackle climate change in Wales".

This is a key material consideration and reflects the positive impacts of renewable energy projects in terms of reducing carbon emissions and the reliance upon fossil fuels. A development's potential to produce renewable energy should be considered as a significant material consideration in determining any application and substantial supporting weight should be attached to this contribution.

6.2 The array can produce around 5,100 kWh of electricity p.a. and represents a significant reduction to the client's annual electricity consumption. It also has the potential to displace up to 1.2-tonnes of CO₂ annually; over 31-tonnes across the expected 25+ yr lifespan of the installation.

National Planning Policy and Guidance Assessment

National Planning Policy

6.3 Whilst overall energy policy is a reserved function of the UK Government in Westminster, the Welsh Government sets out planning policies for Wales as well as the nation's intentions for future energy generation. All renewable energy proposals must therefore take into account the policies as set out by the Welsh Government.

PPW sets out the land use planning policies for Wales, with the promotion of sustainable development forming a strong theme throughout, signalling the Welsh Government's commitment to tackling climate change and the encouragement of renewable energy provision.

These aims are illustrated in Paragraph 4.4.3, as one of the main sustainability objectives for the planning system is to:

*“Support the need to tackle the causes of climate change by moving towards a low carbon economy. This includes facilitating development that reduces emissions of greenhouse gases in a sustainable manner, **provides for renewable and low carbon energy at all scales** and facilitates low and zero carbon developments.”*

6.4 The Proposed Development, whilst small in scale, will help the Welsh Government in achieving this objective as it comprises a development that produces renewable, low carbon energy and as such would contribute to tackling climate change and cutting greenhouse gas emissions. This is reinforced within Paragraph 12.8.6 of PPW:

“The Welsh Government’s aim is to secure an appropriate mix of energy provision for Wales which maximises benefits to our economy and communities, whilst minimising potential environmental and social impacts”.

In fact it could be argued that development of smaller Renewable Energy installations such as this would carry far more benefit and less visual impact if taken up more widely, than large Commercial Solar Farms, the latter carrying much larger visual implications to landscape and creating far more grid infrastructure / connection challenges.

6.5 Section 12 of PPW contains a considerable amount of guidance regarding renewable and low carbon energy.

Paragraph 12.10.1 outlines the aspects of a development proposal that should be taken into account by the LPA:

“In determining applications for renewable and low carbon energy development and associated infrastructure LPA’s should take into account:

- The contribution a proposals will play in meeting identified national, UK and European targets and potential for renewable energy, including the contribution to cutting greenhouse gas emissions;*

- The wider environmental, social and economic benefits and opportunities from renewable and low carbon energy development;*

In addition, an extract from Paragraph 12.8.9 states that a positive stance by LPA’s should be taken by;

“– considering the contribution that their area can make towards developing and facilitating renewable and low carbon energy, and ensuring that development plan policies enable this contribution to be delivered;

- ensuring that development management decisions are consistent with national and international climate change obligations, including contributions to renewable energy targets and aspirations;*

- recognising the environmental, economic and social opportunities that the use of renewable energy resources can make to planning for sustainability*

The Proposals would contribute to the renewable energy generated within the Iscoed and wider area, and the LPA’s renewable energy and climate change targets. The relevant planning policies, as outlined within the UDP, have been considered with regards to the Proposals and the assessment is detailed within this Design and Access Statement.

Furthermore, the ways in which the Proposals are consistent with PPW guidance and the UDP in terms of renewable and low carbon energy production is also detailed.

Technical Advice Notes (TAN)

6.6 An additional material consideration in the decision making process are Technical Advice Notes (TAN) which supplement the PPW. The following are considered relevant to this Proposal.

TAN 8

Although published in 2005, before mainstream solar installations had become established within the UK, TAN 8 outlines the aspirations for Wales in terms of renewable electricity production stating;

“...we have set 4TWh per annum renewable electricity production target by 2010 and a 7TWh target by 2020 as stepping-stones to our ambition of 60% carbon savings by 2050.”

TAN 8 sets out the Welsh Government’s commitment to promote energy efficiency and energy conservation, as well as the development of new sources of renewable energy which are essential to meeting the targets set by energy policy. Due to the date TAN 8 was published, this guidance does not contain solar specific guidance. Nevertheless TAN 8 reinforces the Welsh Government’s support for sources of renewable energy.

It is therefore considered that the benefits of the Proposal should be afforded weight in the decision making process as it would make a small but positive contribution to the Welsh Government’s aspirations to generate more renewable energy.

Practice Guidance – Planning Implications of Renewable and Low Carbon Energy 2011

6.7 Section 8 of this guidance details the relevant factors to be considered by LPA’s in relation to planning implications of renewable and low carbon energy and outlines particular aspects, as follows:

- **Landscape and Visual**

The Installation is a small domestic / agricultural scaled installation, of 22m2. It will sit within an overall ownership boundary of some 3+ acres, and paddock space of some 2-acres (8,500m2). The surface area of the array will cover 0.0025% of the paddock space. It is an almost insignificantly low saturation figure, and is likely to be the best way to demonstrate the [lack of] visual impact within the immediate and wider landscape.

- **Historic Environment**

The array is sited in a low-lying area of the agricultural field and does not affect any sites of Historic Environmental Importance.

The array sits outside the Listed Curtilage of Henrwst Smithy but regardless, is not immediately visible from the property, nor impacts on it visually, practically or in any other way.

- **Agriculture**

The installation is sited within a paddock predominantly used for grazing. Use of the paddock will not be affected.

- **Cumulative Impact**

This is a domestic Solar array, not a Solar Farm. There are no Cumulative Impact considerations.

Presumption in favour of Sustainable Development

6.8 As detailed, PPW reinforces that planning plays a key role in securing reductions in greenhouse gas emissions and supporting the delivery of renewable energy. This is central

to the economic, social and environmental dimensions of sustainable development. There

would be a positive impact in environmental terms delivered by the installation. This installation will also assist the Applicant in increasing their own security and diversity of electricity supply - something seen as crucial moving forwards with the volatility of our power supplies being recently highlighted.

Overall it is considered that the Proposals would comprise a sustainable form of development and therefore, in line with Paragraph 4.2.2 of the PPW and Policy GDP1 of the UDP as well as the policies outlined above, there is a presumption in favour of this development.

7/ Suitability of Solar Array Size – Consumption on site – Avoiding over-development

7.1 The client has funding for a much larger installation which would have proved a better investment for them. It would have presented greater visual impact though. They instead chose to select a size of installation that best helped to offset some of their on-site electricity consumption, and no more.

8/ Other options for Green Electricity Generation

8.1 The client lives in an open and exposed location. The topography of the aforementioned field offers good potential for generation of electricity from wind.

Initial desktop studies had shown installation of a small wind turbine to be viable but this was dismissed by the client, who was in favour of a far more visually discrete way of generating power.

A small Solar PV array was therefore selected instead.

9/ Access

9.1 The installation can be adequately accessed from the local road network for service and maintenance. There is no need to change or create new roads, paths or access.

10/ Conclusion

10.1 As noted in Paragraph 1, this information has been provided to further explain the merits of the proposal, and to raise awareness and understanding of the proposed installation and its domestic scale.

10.2 The proposed development fully embraces the guidelines set out in National Planning Policy and makes a positive and significant contribution to the future energy needs

of the client as well as making a small but important impact of the Country's wider need to adopt localised, low-impact green and sustainable power.

We would conclude that Planning Approval should be given for the project, and would ask that you contact us if you require any further information, or if we can further assist the planning process in any way.

STATEMENT ENDS