

RSPB Reserve Old Moor

Planning statement

Introduction

1. The RSPB proposes to install a car park solar canopy as integral to a 22 bay double carport covering approximately 325 square metres of existing car park at the Old Moor Visitor Centre (Reference: SE 426024).
2. The installation is expected to have a peak capacity of 49.5kWp and will comprise 198 photovoltaic (PV) panels arranged on a south facing canopy roof at a 15-degree pitch. It will represent an investment of between £100,000 and £125,000.
3. Electricity generated from the canopy during daylight hours will be used by the RSPB Visitor Centre with the surplus electricity fed directly back into the Grid. Average annual demand at the Centre would be likely to take up most of the 50kWp capacity.
4. The car park solar canopy is likely to have an economic life of between 25 and 40 years before it will need to be replaced.
5. This type of renewable project is firmly underpinned by the UK Government's commitment to reduce CO2 emissions by 34% from 1990 levels by 2020 and by National planning Guidance in PPS 22 which encourages Local planning authorities to adopt permissive policies towards 'small scale renewable energy developments' (paragraph 18).
6. The Supplement to PPS 1 entitled 'Planning and Climate Change' specifically encourages decentralised energy and on-site renewables.

Climate Change and Energy Security

1. The UK, as a whole, is committed to ambitious renewable targets to achieve reductions in the release of atmospheric carbon dioxide. In support of these targets the Government has in place certain financial support arrangements to encourage the development of renewable energy generation. Solar power is one such renewable source that displaces power generation from fossil fuel sources (coal, gas and oil). The full life cycle carbon footprint for PV is approximately 50-60gCO2e/Kwh (principally from manufacturing the silicon panels) and though higher than both wind and hydro is substantially below the footprint of fossil fuel power generation which ranges between 500g (gas) and 1000gCO2e/Kwh (coal).
2. Generating renewable power has the advantage that once the technology is installed it doesn't rely on fossil fuels which in the case of the UK are of increasingly limited supply. Renewables, to this

extent, therefore help the UK become less reliant on imports of fossil fuel and improves the UK's security of supply.

3. The financial support mechanism is provided in the Feed-in-Tariff (FiT) scheme which was set-up by DECC using powers granted to it in the Energy Act 2008. The scheme sets out a level of guaranteed payment in pence per kilowatt-hour of electricity produced from micro renewable generation. This payment is made whether or not the electricity is used by occupiers at the point of generation (in this case at the RSPB reserve) or fed back into the Grid. The level of payment is set at a price to reflect the degree of innovation in the renewable technology, the likely resource input (wind, solar, hydro and thermal) and the unit cost of the generating equipment. In the case of hydroelectric power the technology is mature, for wind power it is becoming well developed and for solar it is relatively early in its development. The rates of FiT support in future years will therefore reduce for solar to reflect ongoing innovation and reducing costs of manufacture. The FiT payment is paid to the generator by a licensed electricity supplier. The overall cost of the FiT scheme is covered as a levy on all electricity users.

Suitability of the Old Moor Visitor Centre (RSPB site)

1. The level of interest in ground-mounted solar arrays had not been anticipated by Government when the FiT tariff levels were set in 2010 and as a consequence the Government revised the FiT level of support for ground-mounted schemes from 1st August 2011 for installations over 50kWp in size. The FiT level of support for installations up to 50kWp was reduced from December 2012. The cost of PV installations continues to fall and it is anticipated that at some stage in 2012 it will once again become economic to invest in installations. In anticipation of this, RSPB wishes to secure planning in advance to cover for this eventuality.

2. This application at Old Moor is one of 20 or so RSPB sites selected for their suitability for solar generation and on-site demand. Deriving energy from 'micro' solar together with other renewables and careful demand management will be a practical way that RSPB can make its contribution to helping the UK meet its emission reduction targets.

3. Old Moor, as a location for a car park solar canopy, has a number of advantages over a farmland location as the site is relatively well concealed (see section on Visual Impact - post) and it benefits from an existing electrical connection.

4. A problem for many sites both in terms of cost and visual impact is the requirement to fence the solar installation to keep it

secure from theft and prevent public access. There has to be some doubt in the more remote locations, even when security fencing can be erected, that the insurance costs will not though be prohibitive.

Old Moor has the comparative advantage of existing security from RSPB staff that are present at weekends and the fact that the panels will be off the ground and integral to the car park canopy.

5. Old Moor has a solar irradiance rating of 870.45 as measured from the past 12 years of satellite data (the figure represents the annual Kwh from a 1Kwp PV system). This rating is more than adequate for the technology. The higher the rating the better; in Cornwall the level can reach 1100 towards the far south west; in the Midlands and further north the rating drops to 900-850 and below. At a level of 850 and below PV can become suboptimal.

Environmental Impact

The applicant does not believe that there is a requirement for an EIA. Although the site is in a sensitive area the development is just too small to be considered to be the type of development listed in Schedule 2 and because it has little or no impact does not trigger any of the criteria set out in Schedule 3 (screening) of the Town and Country (Environmental Impact Assessment) (England and Wales) Regulations 1999 SI 293. The environmental impact of the installation, such as it is, is described in the following sections of the report.

Visual Impact Assessment

The landscape is already impacted by the substantial Pylon route, wind turbine, buildings and existing car park. Existing low vegetation around the car park will very largely conceal the canopy structure. It will not be seen from the Reserve.

A set of photographs showing viewpoints to the site accompanies this Planning Statement.

Flood Risk Assessment

The car park is just on the edge of the 1 in 100 year flood plain and the general area is protected by flood defences.

Other Environmental Impacts

1. The array generates no noise or dust and there is no traffic impact.
2. Glare is not considered to be a problem. The reflected rays will be directed towards a northern arc, west to east, away from the relatively shallow pitched southeast facing modules. The solar panels are specifically designed to absorb sunlight and so only 3-4% of the visible light is reflected which is considerably less than, for example, a car windscreen.

Community Consultation

There are no immediate residential neighbours who would be affected by the proposal.

Design and Access Statement

1. Statements are normally intended to be a freestanding document to the application but given the relatively simple nature of this development the explanation for the design of the car park solar canopy is incorporated here in the Planning Statement.
2. The solar modules are manufactured by Yingli which is the second largest solar panel manufacturer in the world.
3. The canopy array will comprise 198 solar PV modules, each measuring 1650mm x 990mm x 50mm.
4. The array has been designed to operate on a fixed installation at a 15-degree angle at a south facing orientation. The canopy is 2.5m at its low point, 3.8m at its high point with a depth of 5m.

Policy Considerations

1. Renewable Policy

The Old Moor PV development is in accordance with the local planning authority (LPA), Barnsley Metropolitan Borough Councils' Local Plan policies that state inter alia:-

8.9 *'minimising the use of energy and encouraging greater use of energy from renewable sources'*

9.1 *'increasing and encouraging the production of renewable energy in the borough whilst protecting the countryside and amenity'*

9.16 *'developments not connected and unsuitable for future connection to a heat network will rely on energy generated from renewable, like solar panels, photo-voltaics and heat pumps'*. The local plan also regulates at Policy that:

9.2 *'The Challenge : meeting the government's carbon-cutting ambitions by promoting both higher levels of energy efficiency and much greater use of renewable energy'*

The development will have very little or no adverse impact on the environment or landscape, as it will be built on existing buildings and infrastructure.

2. Additional Policies include:-

'increasing renewable energy capacity and facilitating the delivery of schemes which lead to wider economic and environmental benefit, reduce greenhouse gas emissions, and provide a diverse energy supply'

9.30 *'this policy aims to create a framework that both promotes and encourages the generation of energy from renewable and low-carbon sources'*

9.33 *‘renewable sources include energy produced from the wind, sun, biomass, water, and photovoltaic equipment’*

CSP6 *‘We will allow development that produces renewable energy as long as there is no significantly harmful effect on: the character of the landscape and appearance of the area....(or) biodiversity, geodiversity and water quality (or) heritage assets, their settings and cultural features and areas.’*

This development is in a key area of conservation interest. However it will be installed on a canopy covering an existing car park. As such, there will be little or no change to the existing landscape, with no large-scale development. It therefore complies with the relevant LPA policies.

CONCLUSION

The proposal has little or no environmental impact, is strongly supported by national policy and does not contravene any local policies or nature conservation and wildlife protection policies. It will help to decarbonise the electricity supply to the RSPB and help to meet the UK’s commitment to its emission reduction targets.