Wind Turbine Development at Carlton Advanced Learning Centre, Barnsley: Design and Access Statement

Introduction

1.1 This Design and Access Statement has been prepared by Turley Associates on behalf of Barnsley Partnership for Learning in support of a full planning application for a wind turbine development at Carlton Advanced Learning Centre (ALC).

1.2 The requirement for a Design and Access Statement has arisen in response to the need to promote better quality and more sustainable design in development, an objective embedded through PPS1: Creating Sustainable Communities (2005).

1.3 The purpose of this statement is to consider the relevant design policy guidance and identify the design principles band concepts that have been applied to particular aspects of the proposal – these being the amount, layout, scale, appearance and landscaping of the development and access arrangements.

2. Policy Framework

2.1 The following documents set out the policy framework for consideration of the proposed development.

PPS1: Creating Sustainable Communities (2005)

2.2 PPS1 sets out the Government's commitment to sustainable development. Local Planning Authorities are encouraged to:

- Give priority to re-using previously developed land;
- Create sustainable patterns of development;
- Create usable, durable and adaptable places;
- Make more efficient use of land; and,
- Promote good design in development.

2.3 The principle policies set out by PPS1 (paragraph 13) include the promotion of high quality development though inclusive design and the efficient use of resources. These include a commitment towards addressing the causes and impacts of climate change, through reduced energy consumption and the promotion of renewable energy sources.

2.4 PPS1 states that '*good design should contribute positively to making places better for people'* (paragraph 34). As such, design should be appropriate in its context and should allow a place to function well, through carefully planned high quality developments which support the efficient use of resources.

2.5 Good design should:

- Be integrated into the existing urban form and the natural and built environments;
- Be an integral part of the processes for ensuring successful, safe and inclusive villages, towns and cities;
- Create an environment where everyone can access and benefit from the full range of opportunities available to members of society; and
- Consider the direct and indirect impacts on the natural environment.

2.6 Design policies should avoid unnecessary detail and should concentrate on guiding the overall scale, density, massing, height, landscape, layout and access of new development in relation to neighbouring buildings and the local area.

PPS22: Renewable Energy (2004)

2.7 PPS22 sets out the Government's planning policy on renewable energy. The key objectives are the promotion and development of renewable energy and improvements to energy efficiency in order to mitigate climate change.

2.8 Paragraphs 19 and 20 relate to the impacts of renewable energy development on the landscape and visual amenity, and ambient noise levels. Appropriate siting, layout, design and landscaping schemes are emphasised as a means of minimising the impacts of the proposed renewable energy development.

Barnsley Unitary Development Plan (Adopted 2000)

2.9 The Barnsley Metropolitan Borough Council Unitary Development Plan (UDP) (2000) constitutes the Council's statutory development plan whilst the Local Development Framework (LDF) is under preparation.

2.10 Saved Policy BE6 sets out design standards for all development; proposals will be assessed in accordance with the following criteria:

- The quality of layout and the suitability of the scale of the development;
- The use, quality, design and landscape treatment of open land within the site and the area around buildings;
- The standard of detailed design and facing materials of proposed buildings;
- The suitability of the whole development for its proposed context and its relationship with adjoining land uses.

2.11 Policy ES12 sets out the Council's requirements for proposals that seek to develop wind energy generation. These proposals will be assessed with regard to the impact upon visual amenity and residential amenity, in terms of noise, outlook and shadow flicker, as well as electro-magnetic effects and suitable design which makes provisions for connection to the electricity transmission and supply system.

Barnsley Local Development Framework

2.12 In accordance with the requirements of the Planning and Compulsory Purchase Act (2004), the Council is currently preparing its Local Development Framework (LDF). The Core Strategy Preferred Options document was published in October 2005. This was updated by the Core Strategy Revised Preferred Options, published in June 2009.

2.13 Strategic Objective 6 of the Revised Preferred Options document requires that all new development is suitably designed and built to the highest standards by enforcing the principles of sustainable design and requiring developments to achieve nationally recognised design standards.

2.14 Strategic Objective 8 seeks to minimise energy consumption and to support renewable energy facilities in order to increase the amount of renewable energy produced in the Borough.

2.15 Draft Policies CSP38 supports Strategic Objectives 6 and 8 by promoting the efficient and prudent use of resources in new developments and ensuring high quality design. The policy requires that all development must adhere to design principles which include:

- The development must be a suitable scale, height, massing and appearance in regards to the site and its surroundings;
- Be integrated into the existing urban form and natural environment;
- Be based on sustainability, durability and adaptability;
- Be created with high standards of design and architecture.

2.16 Draft Policy CSP49 specifies that proposals for renewable energy will only be permitted where there is no detrimental impact upon the character of the landscape and appearance of the area, residential amenity, biodiversity and any historical and cultural features.

3. Evaluation of the Proposal

3.1 The proposed location of the turbines was chosen to benefit from the on site wind resource and the availability of space on the site. In addition, given its location within the playing fields, the proposed wind turbines will have a minimal impact on residential amenity of the surrounding properties or on the street scene.

Use –

3.2 The proposal is for two wind turbines with a maximum installed capacity of up to 15kw each with the proposed location chosen to benefit from a good wind resource, distance from residential properties, many of which benefit from screening in the form of soft landscaping, and the adjacent highways.

3.3 Wind energy has been selected above other forms of renewable energy sources as it is considered to be the most mature renewable energy technology that will take the most advantage of local climatic conditions.

3.4 The proposed development would not have an unacceptable impact on residential properties in terms of noise or visual amenity. The proposed development would make a positive contribution to the surrounding locale by promoting the provision of energy from wind which is a renewable source.

Amount –

3.5 2 turbines have been proposed as this makes best use of the available wind resource for renewable energy generation across all of the phase 1 BSF schemes

Layout –

3.6 By necessity, the layout is dictated by making best use of the available wind resource. The turbines need to be located so that air flow is not adversely affect by turbulence resulting from other turbines in the area this being a minimum separation of 30 metres from turbine to turbine. There are few alternative layout options to consider.

Scale–

3.7 The proposed development is for two wind turbines with a hub height of 15 metres.

3.8 The scale of the proposed development is related to constraints within the locality and the requirement to maximise operational efficiency. Although it is

acknowledged that the proposed turbines would be visible from the surrounding area, it is not considered that the turbines would have a significant detrimental impact to adjacent uses or on the surrounding landscape character.

3.9 The size and scale of the turbine proposed will maximise the potential for this site in terms of renewable energy generation.

Landscaping –

3.10 The turbines are to be accommodated within the landscaping details already approved under the wider ALC construction programme.

Appearance

3.11 By necessity the turbines are of a functional appearance that reflects the role as an energy generator. The turbines comprise a steel tower upon which is mounted a generation hub and three bladed turbine assembly. Alternative turbines were considered as part of the evaluation but these were discounted primarily on the grounds of operational efficiency and reliability.

Access –

3.12 Primarily the proposals will require occasional access for maintenance purposes in line with a specified schedule. In this case the turbines can be winched down for maintenance. Given the nature of the proposal, their specialist nature means that access for those with disabilities is not necessarily a consideration in this case.