BARNSLEY PARTNERSHIP FOR LEARNING

ENERGY CENTRE DEVELOPMENT, KIRK BALK ALC

DESIGN AND ACCESS STATEMENT

FEBRUARY 2010

TURLEY ASSOCIATES

CONTENTS

1.	Introduction	1
2.	Policy Framework	2
3.	Evaluation of the Proposals	5

Appendices:

Appendix 1 – Schedule of Materials

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1. 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 an energy centre containing a biomass boiler with a roof mounted wind turbine at Kirk Balk 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 Proposals

3.1 The proposal will provide accommodation for a biomass boiler and 1 roof mounted wind turbine. The proposal will serve and provide energy for the larger overall development scheme for the redevelopment of the school in accordance with the national Building Schools for the Future (BSF) programme and Barnsley Remaking Learning.

Use

3.2 The proposal is for a single storey energy centre which is to accommodate a 500kW biomass boiler and a 1.5kW roof-mounted wind turbine.

3.3 The purposes of the biomass boiler is to secure a source of renewable energy which will provide for a proportion of the annual heating requirements for the ALC. The roof-mounted wind turbine will contribute towards meeting a proportion (10%) of the total energy requirement of the Phase 1 schools (Carlton, Darton, Dearne, Kirk Balk and Penistone ALC's).

3.4 The proposals will provide for the required energy needs of the ALC, whilst also allowing for the reduction of carbon emissions at the site by securing a renewable energy supply. This will make a positive contribution towards the delivery of a BREEAM 'very good' rating at the ALC.

Amount

3.5 The proposal is for a small 387.5 sq m single storey energy centre building with a fenced enclosure. This will provide the main plant area for the biomass boiler. Energy distribution will be underground to the main school. The size of the biomass boiler has been determined to meet the heating requirements of school and will provide adequate heating to suit the building load so that the boiler operates at maximum efficiency where possible.

3.6 The proposals will have little impact on the overall density of the site and its surroundings by virtue of the small quantity of development and the scale of the proposal.

Layout

3.7 The building has been located to coordinate with the new landscape layout, and is set away from the entrance to the new school and existing leisure facility. The

layout within the structure has been carefully designed to minimise the footprint and height of the building.

Scale

3.8 The Energy Centre is single storey with a flat roof with a maximum height of 4.5 metres.

3.9 In addition, it is proposed to provide a 1.5kW wind turbine situated on the roof of the building which will be approximately 3 metres in height.

3.10 The scale of the proposed development is in keeping with its surroundings.

Landscape Design

3.11 The proposals are to be accommodated within the landscaping details approved under the wider ALC construction programme.

Appearance and Materials

3.12 The energy centre is conceived as a simple, elegant, functional box which houses a range of mechanical and electrical equipment, including a sub-station, biomass boiler and pellet storage.

3.13 The structure comprises an unroofed area, fully clad, which houses the biomass storage and a fully clad, roofed area. Access to the roof is gained via a fixed ladder located within the unroofed area. There is a minimal parapet, to minimise the building height, with fall restraint system to provide safe access for maintenance and access purposes.

3.14 The proposed cladding for the structure is a composite dark grey cladding panel which wraps around the structure. Access into the building is via PPC metal doors, coloured to match the cladding. Lourves within the cladding panels are set to align with door heights and will also have a PPC finish to match the cladding colour. A schedule of materials can be found at **Appendix 1**.

3.15 The proposed design and colour provide an unobtrusive, elegant structure which recognises its ancillary function to the overall Kirk Balk school development and existing leisure centre.

Sustainability

3.16 The design team is committed to designing schools based on sustainable environmental principles from the basic concept through to detailed design. The purpose of the energy centre is to provide energy for the ALC from sustainable sources.

3.17 The form of the energy centre has been designed to passively manage; daylight and direct sunlight, solar gains and climatic control, ventilation, water management, acoustics and energy use.

3.18 Wind power and biomass will be used to generate heat and power throughout the life cycle of the building to serve the ALC. Under the BREEAM rating, Kirk Balk ALC has achieved full credits for renewables and low emission energy which is dependent on 15% of the total energy demand being provided from renewable sources. The initial BREEAM assessment shows that will achieve a 'very good' rating whilst aspiring to achieve 'excellent'.

3.19 The biomass facility and wind turbine are considered to be the most appropriate sources of renewable energy in this location to achieve the required amount of energy to meet the requirements of the ALC. The resources will take advantage of the local climatic conditions, whilst also reflecting the site context and adjacent uses.

Accessibility

3.20 The proposals will require occasional access for maintenance purposes in line with a specified schedule. Parking will be directly outside the building to minimise heavy lifting. The proposals will also require weekly deliveries of wood chips / pellets which is the fuel for the boilers. The building is single storey, offering level access throughout.

3.21 Access to the roof is gained via a fixed ladder located within the unroofed area. There is a minimal parapet, to minimise the building height, with fall restraint system to provide safe access for maintenance and access purposes.

3.22 The energy centre will be constructed in compliance with Building Regulations Approved documents M and BS8300. All entrance doors will provide a minimum of 926mm clear openings with closures meeting the requirements of Approved Document Part M.

Appendix 1 – Schedule of Materials

Schedule of Materials

	Material
Roof	PPC coated metal coping with concealed fixings
Walls	PPS coated insulated composite panel system with PPC coated skirting with concealed fixings to the base of the cladding
Doors	PPC coated aluminium flush with cladding and PPC coated fully louvred aluminium flush with cladding
Ventilation Grill	PPC coated flush with cladding

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