

**enviroparks**

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# Design & Access Statement

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Amended phase II development and operation  
of a sustainable waste resource recovery and  
energy production park.

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February 2017





## Design and Access Statement

### CONTENTS

1.	Introduction	3
2.	Understanding the policy context	9
3.	Understanding the site and context	17
4.	Setting the design objectives	21
5.	Producing the design solution	25
6.	Conclusion	35

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## Chapter One INTRODUCTION

### PURPOSE OF THIS DOCUMENT

1.1 This design and access statement (DAS) supports a planning application by Enviroparks (Wales) Limited ('EWL' or 'the Applicant') for a waste recovery and energy production plant at Fifth Avenue on the Hirwaun Industrial Estate, near Hirwaun in South Wales.

#### The Applicant: Enviroparks (Wales) Limited

1.2 EWL is an energy company that has developed a concept of co-locating waste recycling, energy recovery and associated commercial operations on the same site or 'park'. The company's approach is to recycle diverse waste streams using integrated advanced technologies to maximise recycling and energy generation with the minimum residual waste and environmental impact.

1.3 Based in Abergavenny, EWL was established with the aim of developing a chain of Enviroparks in the UK. EWL is funded by private investors and investing institutions, notably Zeus Renewables which specialises in investments in renewable energy infrastructure. The directors of EWL formerly developed a battery recycling facility in Ebbw Vale which is the most modern of its kind in Europe and one of only two in the UK. Now employing 135 staff, the plant has become one of largest producers of lead roofing materials worldwide.

1.4 EWL is working in partnership with several specialist technology providers to deliver its aims. The combination of technologies brought together by EWL is designed to ensure high levels of efficiency with regard to fuel preparation and electricity production. These technologies are intended to represent Best Available Techniques for the functions they serve.

#### Background

1.5 In 2008 EWL (then called Enviroparks (Hirwaun) Limited) submitted planning applications to Rhondda Cynon Taf County Borough Council (RCT) and Brecon Beacons National Park Authority (BBNPA) for planning permission for development described as follows:

*Development of a sustainable waste resource recovery and energy production park comprising 27,562 m<sup>2</sup> of buildings and structures, including a 10,240 m<sup>2</sup> building for use class B1 / B2 use; process buildings; a gatehouse and weighbridge; a visitor centre and administration building; a 20 MW<sub>e</sub> net capacity combined heat and power plant; with a 40 m ventilation stack; external anaerobic digestion, liquid and gas holding tanks; 30,352 m<sup>2</sup> of internal roads and hardstandings; vehicular parking; external security lighting; 17,497 m<sup>2</sup> of landscaping; vehicular ingress and egress from Fifth and Ninth Avenues, and associated utilities infrastructure.*

1.6 Planning applications were made to two planning authorities because the boundary between the two crosses the application site. Planning permission was granted by both authorities on 21

December 2010 (RCT reference 08/1735/10 and BBNPA reference 08/02488/FUL) following the completion of a planning obligations agreement under section 106 of the Town and Country Planning Act 1990.

1.7 Since then the planning permissions have been implemented through the construction of the first phase of the development. The operator, Enviroparks (Wales) Limited wishes, to proceed with the second phase of the development. However, since the original scheme design was prepared in 2008, advances in waste recovery technologies and a much-changed policy and commercial landscape for waste recovery and renewable energy generation have necessitated a review of the original master plan for the Enviroparks site. Revised planning applications have been prepared for the site, and this Design and Access Statement is submitted alongside these applications to illustrate the process that has led to the proposed development and to explain and justify the proposals.

## Form and content of the planning submission

1.8 EWL is applying to the two local planning authorities, BBNPA and RCT for planning permission for the following, which is illustrated in the site plan, elevational drawings and photomontage images at the back of this document:

*Amended phase II development and operation of a sustainable waste resource recovery and energy production park, comprising the consolidation of the approved gasification yard and pyrolysis building into a 6,270.43 m<sup>2</sup> gasification hall; an emissions stack measuring 45 m in height and 3.5 m in diameter; a 2,102.86 m<sup>2</sup> fuel storage hall and a 378 m<sup>2</sup> turbine hall for electricity generation; and a 4,824 m<sup>2</sup> open service yard containing ancillary structures including air-cooled condensers for the gasification plant, ancillary fire water tanks and a fire pumphouse, effluent pumps, gas boosters, transformers and a standby diesel generator and fuel tank, with boundary landscape and planting.*

1.9 In summary, the main differences between the development approved in 2010 and the amended scheme applied for now are as follows:

- It is proposed that the gasification yard, pyrolysis building and engine house all shown separately in the 2010 scheme should all be consolidated into a single building. This would be achieved by raising the height of the consented but unbuilt building on the Fifth Avenue frontage of the site by two metres to an eves height of 14.1 metres and a ridge height of 16.1 metres to accommodate a Fuel Storage Hall and Turbine Hall, and building a Gasification Hall to the north of this revised building, extending towards the centre of the site, with an eves height of 16.5 metres. and a ridge height of 18.5 metres.
- Raising the height of the consented but unbuilt emissions stack at the centre of the site from 40 metres to 45 metres to ensure the effective dispersion of atmospheric emissions without interference to air flow from the proposed Gasification Hall beneath. The stack would also be increased in diameter from 2.5 metres to a maximum 3.5 metres, which will enhance both its operational performance and structural integrity.
- Deletion of the consented anaerobic digestion tanks inside the western boundary of the site. This is because a similar facility has opened at Bryn Pica, nearby.

- The replacement of the consented but unbuilt green wall inside the south-western corner of the site with a belt of tree and shrub planting. The green wall had been proposed to conceal the open gasification yard. However, with the gasifiers located in the proposed Gasification Hall, this requirement falls away.

1.10 These amendments are intended to afford a range of operational and amenity benefits. Placing all process elements into a single building is operationally efficient. Plant and equipment would be protected from the weather and operational monitoring would be assisted. Working conditions for staff would improve. From an amenity perspective, enclosing the gasifiers in a building greatly assists noise attenuation and odour containment, helps to avoid light pollution and presents a less industrial and more visually coordinated feature in views from outside the site, including from the elevated terrain in the Brecon Beacons National Park to the north. The new and amended buildings would use the same elevational treatment and building materials approved for the development that was granted planning permission in 2010.

1.11 In accordance with the Town and Country Planning (Development Management Procedure) (Wales) (Amendment) Order 2016, the current proposals were the subject of pre-application consultations. A draft of this Design and Access Statement was made available in support of the consultation exercise.

## THIS DOCUMENT

### Purpose

1.12 This statement has been prepared in accordance with the Town and Country Planning (Development Management Procedure) (Wales) Order 2012, as amended by the Town and Country Planning (Development Management Procedure) (Wales) (Amendment) Order 2016, according to which a design and access statement must:

- a). explain the design principles and concepts that have been applied to the development;
- b). demonstrate the steps taken to appraise the context of the development and how the design of the development takes that context into account;
- c). explain the policy or approach adopted as to access, and how policies relating to access in the development plan have been taken into account; and
- d). explain how any specific issues which might affect access to the development have been addressed.

1.13 This statement has been prepared in accordance with the Welsh Government's Technical Advice Note 12: *Guidance on Design and Access Statements* (March 2016). According to paragraph A2.2 of this advice note, the main roles of a DAS are:

- *to ensure that the developer can provide evidence to justify proposals in terms of planning policy (national and local) and in terms of the factors listed in Table 1;*

- to explain how the objectives of good design have been applied, or where they have not been applied, the reasons for that;
- to clearly set out the established vision and principles for the scheme;
- to demonstrate that the principles of sustainability have been addressed and used to inform the design of the development;
- to illustrate how the developer has considered conflicting demands and the extent to which these considerations have influenced the proposed development;
- to ensure that the developer has satisfactorily considered design issues (such as those considered in section 5 of TAN 12) early in the design process and that potential problems are highlighted before detailed design work commences;
- to demonstrate how design decisions have been influenced through the reappraisal of the design.

1.14 Paragraphs A2.4-A2.5 of TAN12: *Guidance on Design and Access Statements* states that:

A2.4 Consideration of design and access matters should influence decision making throughout the life-time of building projects. It is considered good practice that a DAS is seen, and used, as a dynamic series of 'living documents' that 'grow' as a project develops. The statutory requirement is to submit a statement at the application stage; however, good practice is that a statement is initiated at the briefing stage - the strategic level (a time when decisions can have important implications for the success of any development) - and, where appropriate, 'grows' as the various stages that inform and influence the design process are reached.

A2.5 A well-constructed DAS for a project will clearly identify how the objectives of good design will be addressed as the development progresses, with the series of statements being complementary to, rather than in isolation from, each other . . .

1.15 This approach has been adopted by EWL. This DAS and the proposals they describe take forward and refine the design principles set in the DAS that accompanied EWL's original planning applications for the Enviroparks project in 2008. This updated DAS sets out the rationale for those design principles and explains how they have been applied to EWL's revised design proposals. The fact the Enviroparks development is partly built further reinforces the benefit of adapting the existing design language for the development.

## Contents of this document

1.16 Table 1.1 of the Welsh Government's TAN12: *Guidance on Design and Access Statements* advises that 'the DAS must explain the design principles and concepts that have been applied to the development or works; and that a DAS should also:

- *demonstrate the steps taken to appraise the physical, social, economic and policy context of the development;*
- *explain how the design of the development takes that context into account in relation to its proposed use.*

1.17 Table 1.2 of the guidance states that, in respect of access considerations, a DAS should:

- *explain the policy or approach to access;*
- *explain how any policies relating to access in the statutory development plan have been taken into account;*
- *explain how any specific issues which might affect access to the development or listed building have been addressed;*
- *detail how features which ensure people's access to the development or listed building will be maintained;*
- *adopt the 'inclusive design' approach set out in section 3 of this TAN.*

1.18 To assist comparison this DAS follows the same structure as the 2008 DAS that accompanied the original Enviroparks planning applications:

- understanding the policy context
- understanding the site and context
- setting the design objectives
- producing the design solution

1.19 The detailed content of each chapter has been directly informed by TAN12: Guidance on *Design and Access Statements*, which is cross-referenced below where relevant.



## Chapter Two

### UNDERSTANDING THE POLICY CONTEXT

#### INTRODUCTION

2.1 The purpose of this chapter is to outline and assess the design policy framework for the planning application. Commentary is provided on how the Hirwaun project has responded to these policies before the substantive description of the design approach is given in chapters 3-6.

2.2 Chapter five of the Environmental Statement Addendum that accompanies the current planning application also provides a comprehensive review of the wider legal and policy context for the proposals, encompassing energy, waste and planning policy.

#### NATIONAL DESIGN POLICY

##### Planning Policy Wales (9th edition, November 2016)

2.3 Planning Policy Wales (PPW9) sets out the land use planning policies of the Welsh Government. It is supplemented by a series of Technical Advice Notes (TANs). Having regard to the requirements of the Well-being of Future Generations (Wales) Act 2015, sustainable development forms the central aim of PPW.

2.4 Section 4.11 *Promoting sustainability through good design* provides the following advice:

*4.11.1 Design is taken to mean the relationship between all elements of the natural and built environment. To create sustainable development, design must go beyond aesthetics and include the social, environmental and economic aspects of the development, including its construction, operation and management, and its relationship to its surroundings.*

*4.11.2 Good design can protect and enhance environmental quality, consider the impact of climate change on generations to come, help to attract business and investment, promote social inclusion and improve the quality of life. Meeting the objectives of good design should be the aim of all those involved in the development process and applied to all development proposals, at all scales, from the construction or alteration of individual buildings to larger development proposals.*

2.5 PPW9 proceeds to state that these objectives can be categorised into five key aspects of good design:

- **Access** – ensuring ease of access for all
- **Character** - sustaining enhancing local character. Promoting legible development. Promoting a

successful relationship between public and private space. Promoting quality, choice and variety.  
Promoting innovative design

- **Community safety** - ensuring attractive, safe public spaces. Security through natural surveillance.
- **Environmental sustainability** - achieving efficient use and protection of natural resources. Enhancing biodiversity. Designing for change.
- **Movement** - promoting sustainable means of travel.

2.6 According to PPW9 paragraph 4.11.3:

*The design principles and concepts that have been applied to these aspects should be reflected in the content of any design and access statement required to accompany certain applications for planning permission and listed building consent which are material considerations.*

2.7 Under the heading *Ensuring access for all*, paragraph 3.3.3 of PPW9 states that:

*When a new building is proposed, an existing building is being extended or altered or a change of use is proposed, developers should consider the need to make it accessible for all those who might use the building. The appropriate design and layout of spaces in, between and around buildings, including parking provision and movement routes, is particularly important in ensuring good accessibility. The preparation of access audits may be useful in any assessment of accessibility.*

## Technical Advice Note 12: Design (March 2016)

2.8 TAN 12: *Design* (of which the *Guidance on Design and Access Statements* cited in the preceding chapter forms a part) expands upon PPW9 and is the principal source of design guidance in Wales. TAN12 expands upon the advice in PPW9, including the five aspects of good design identified above. The advice should be read as a whole and cannot easily be préciséd here, although this DAS explains how relevant provisions of TAN12: *Design* have been taken into account in the current proposals.

## LOCAL DESIGN POLICY

### Overview

2.9 The application site lies on the boundary between two local planning authorities, and the development plan thus comprises the following:

- *For the south-eastern part of the site* - the Rhondda Cynon Taf County Borough Local Development Plan, adopted by RCT in March 2011.

- For the north-western part of the site - the Brecon Beacons National Park Local Development Plan, which was adopted by the National Park Authority on 17 December 2013, sets out key policies and land use allocations to guide development up to 2022.

2.10 Relevant design and access provisions from these plans will be summarised in turn.

### **Rhondda Cynon Taf County Borough Local Development Plan**

2.11 Policy CS9 of the adopted RCT LDP confirms that Hirwaun Industrial Estate is an appropriate location for in-building waste management uses of the type proposed in the current application:

#### ***Policy CS 9 - Waste Management***

*In order to meet the capacity requirements of between 12.5 and 21.7 hectares in the South East Wales Regional Waste Plan land will be made available at the regional and sub-regional level.-*

#### **Regional Sites**

*The following sites are identified as being able to accommodate a range of waste management options, including recycling and composting, at a regional level:-*

1. Land at Bryn Pica (including land filling of residual wastes); and
2. Hirwaun Industrial Estate (in-building processes only).

#### **Sub-regional Sites**

*Proposals for waste management facilities to serve sub-regional needs will be permitted within existing and allocated B2 employment sites.*

2.12 The enclosure of the proposed gasifiers in buildings, as opposed to the open yard as permitted under the proposals granted planning permission in 2010, accords with the requirements of part 2 of this policy.

2.13 Chapter five of this plan sets out RCT's area-wide ('AW') policies, three of which are relevant in a design and access context – policies AW5, AW6 and AW10:

#### ***Policy AW 5 - New Development***

*Development proposals will be supported where:-*

- 1). Amenity
- a). The scale, form and design of the development would have no unacceptable effect on the character and appearance of the site and the surrounding area;
  - b). Where appropriate, existing site features of built and natural environment value would be retained;

- c). *There would be no significant impact upon the amenities of neighbouring occupiers;*
- d). *The development would be compatible with other uses in the locality;*
- e). *The development would include the use of multi-functional buildings where appropriate;*
- f). *The development designs out the opportunity for crime and anti social behaviour.*

## 2). Accessibility

- a). *The development would be accessible to the local and wider community by a range of sustainable modes of transport;*
- b). *The site layout and mix of uses maximises opportunities to reduce dependence on cars;*
- c). *The development would have safe access to the highway network and would not cause traffic congestion or exacerbate existing traffic congestion;*
- d). *Car parking would be provided in accordance with the Council's Supplementary Planning Guidance on Delivering Design and Placemaking: Access, Circulation and Parking Requirements.*

## **Policy AW 6 - Design and Placemaking**

*Development Proposals will be supported where:-*

- 1. *They are of a high standard of design, which reinforces attractive qualities and local distinctiveness and improves areas of poor design and layout;*
- 2. *They are appropriate to the local context in terms of siting, appearance, scale, height, massing, elevational treatment, materials and detailing;*
- 3. *In the case of extensions to buildings, they reflect, complement or enhance the form, siting, materials, details and character of the original building, its curtilage and the wider area;*
- 4. *In the case of proposals for new and replacement shop fronts and signage, they make a positive contribution to the street scene;*
- 5. *In the public realm and key locations such as town centres, major routes, junctions and public spaces, the character and quality of the built form is to a high standard of design;*
- 6. *They include public art;*
- 7. *Landscaping and planting are integral to the scheme and enhance the site and the wider context;*
- 8. *They include an integrated mixture of uses appropriate to the scale of the development;*
- 9. *They include the efficient use of land, especially higher-density residential development on sites in proximity to local amenities and public transport;*
- 10. *Open space is provided in accordance with the Fields in Trust Standards;*
- 11. *A high level of connectivity and accessibility to existing centres, by a wide range of modes of sustainable transport;*
- 12. *Schemes incorporate a flexibility in design to allow changes in use of buildings and spaces as requirements and circumstances change;*
- 13. *The development reflects and enhances the cultural heritage of Rhondda Cynon Taf;*
- 14. *The design protects and enhances the landscape and biodiversity;*
- 15. *The development promotes energy efficiency and the use of renewable energy; and*
- 16. *The design promotes good water management, including rainwater storage, sustainable urban drainage, porous paving etc.*

*Developers will be required to submit comprehensive master plans for residential proposals of 50 dwellings and over; for commercial developments of 10,000m<sup>2</sup> net and over; and for schemes where the Council considers the issue of place making can only be fully considered through the submission of a master plan. Master plans must have regard to the need to create high quality, sustainable and locally distinct places.*

**Policy AW 10 - Environmental Protection and Public Health**

*Development proposals will not be permitted where they would cause or result in a risk of unacceptable harm to health and / or local amenity because of:-*

1. Air pollution;
2. Noise pollution;
3. Light pollution;
4. Contamination;
5. Landfill gas;
6. Land instability;
7. Water pollution;
8. Flooding;

*9. Or any other identified risk to the environment, local amenity and public health or safety unless it can be demonstrated that measures can be taken to overcome any significant adverse risk to public health, the environment and / or impact upon local amenity.*

2.14 All of issues 1-9 identified in policy AW10 are addressed in the ES addendum that accompanies EWL's current planning application. As explained in chapter 1 of this DAS, enclosing the consented gasifier units in a building will assist the containment of noise, odour and light pollution, supporting the objectives of policy AW10.

**RCT Supplementary Planning Guidance - Design and Place Making**

2.15 Detailed guidance in respect of place making, site planning, design and master planning is contained in Supplementary Planning Guidance (SPG) entitled *Design and Place Making*, adopted by RCT in March 2011. In respect of design and access statements the SPG offers the following guidance:

**2.5 Design and Access Statements**

2.5.1 Since 1 June 2009 Design and Access Statements (DAS) have been a compulsory element of all residential planning applications. The Council will not be able to validate planning applications until a satisfactory DAS has been submitted. The Welsh Assembly Government has produced guidelines on what these documents should contain which can be found in Welsh Statutory Instrument 2009 No.1024 (W.87).

2.5.2 A DAS should show that the objectives of good design have been considered from the outset of the development process. The DAS will also assist the Council and local community by providing a clear understanding of the proposal. The DAS must consider the following aspects:

- Environment Sustainability
- Movement
- Character

- *Community Safety*
- *Access*

2.5.3 *The DAS should clearly demonstrate how the proposed development has taken into account these themes and how this has been followed through to the concept and detailed design for the scheme. The context of a site must be appraised and the DAS must demonstrate how the design of the development has taken into account the appraisal of the context. Technical Advice Note (TAN) 12: Design sets out the Welsh Assembly Government's guidance in respect of design in all development in Wales.*

2.5.4 *The DAS is a living document and should tell a story. Design and access should not be seen as separate subjects.*

2.16 Much of the SPG addresses development in residential or mixed use neighbourhoods as opposed to the primarily functional considerations applicable on industrial estates. However, EWL has had regard to relevant provisions including those relating to built form, parking and landscape.

## Brecon Beacons National Park Local Development Plan

2.17 Policy 33: *Employment Sites* of the BBNP LDP allocates land for employment use (B1, B2, or B8). The allocations are shown on the Proposals Map and include site reference CS78 *Land adjacent to 5<sup>th</sup> Avenue, Hirwaun Industrial Estate* (5 hectares). According to the table of sites that accompanies Policy 33:

*Whilst the settlement of Hirwaun is within Rhondda Cynon Taff CBC area, part of the Hirwaun Industrial Estate is located within the National Park boundary. The vacant part of the site within the National Park boundary is allocated as employment in order to ensure that the use remains consistent over the boundary.*

2.18 This allocation comprises that part of the Enviroparks site that falls within the National Park. Under the terms of EWL's 2010 planning permission and in the current proposals, the largest building on that part of the allocated Enviroparks site that lies within the National Park is a 10,240 m<sup>2</sup> building for use class B1 / B2 use.

2.19 BBNP LDP Policy 63: *Energy from Waste Development Schemes* states that:

*Energy from waste development schemes will be enabled where they are of an appropriate scale and location commensurate with the National Park Designation (see SP1) and where . . .*

- c) *the proposed scheme is located on*
  - i) *existing waste management sites; or*
  - ii) *sites with existing uses classified as B2 General Industry under the Use Classes Order; or*

- iii) sites allocated for employment or mixed use and they are intended for treatment of locally derived waste materials; and
- d) the need cannot be met in another location outside of the National Park area.

2.20 As noted, the Enviroparks site is allocated for B2 employment use under BBNP LDP Policy 33, and the implementation of the 2010 planning permission establishes the site as an existing waste management site.

2.21 BBNP LDP Policy 35: *Employment Generating Development* includes the following design and access cues:

*B Use Class employment generating developments including new live/work proposals will be permitted where they are located on;*

- a). Allocated employment sites; or
- b). Allocated mixed use sites; or
- c). Existing industrial estates or business parks or
- d). Are within or adjacent to the boundaries of settlements where it has been demonstrated to the satisfaction of the NPA that no suitable allocated or existing employment site is available or
- e). Are within the curtilages of dwellings in the countryside and
- f). The scale of the proposal is appropriate to its location and
- g). The nature and location of the proposal will not have an unacceptable adverse impact on the amenity of the surrounding area; and
- h). Adequate access can be provided to service the development without adverse impact on the existing highways network; and
- i). The proposal will not have an adverse impact on the natural beauty, wildlife, cultural heritage or environmental resources of the National Park.

2.22 BBNP LDP policy SP17: *Sustainable transport* is relevant to the access provisions of the current proposals:

*To ensure that during the LDP period, land use planning opportunities are taken to improve and promote accessibility and to reduce the need to travel by private car by:*

- a). permitting facilities to improve public transport by helping to link between travel modes or providing facilities for passengers;
- b). ensuring new development is well designed by providing appropriate access for pedestrians, cyclists and encouraging the provision of new pedestrian and cycle infrastructure;
- c). refusing proposals that will result in transport impacts which cannot be satisfactorily mitigated (see Policy 59);
- d). where necessary permitting proposals that assist in delivering improved traffic and parking management that are proven necessary for the enhancement of the sustainable transport network; and
- e). all development proposals defined as Major Development must be accompanied by a

*Travel Plan prepared to the satisfaction of the NPA.*

*The NPA aims to achieve the above without the need to enable the development of new roads; however the NPA acknowledges that in exceptional cases new roads are necessary to improve safety standards and to help to achieve wider sustainable transport objectives. Development proposals for new roads will be judged in accordance with the strategic direction of the three regional transport plans and the wider sustainability objectives of the LDP.*

### **Guidance for Sustainable Design in the National Parks of Wales (2008)**

2.23 This document is a manual to assist applicants in the preparation of design and access statements, and sets out the National Park Authority's expectations for construction materials and performance, and influenced the original design of the Enviroparks development. The guidance sets out six 'key principles of sustainable design':

1. energy
2. materials and resources
3. water use
4. landscape and biodiversity
5. place and local distinctiveness
6. robust building

2.24 Consideration of the above principles has been central to the concept and design of EWL's proposals and chapter four of this document is structured around them.

## Chapter Three

### UNDERSTANDING THE SITE AND CONTEXT

#### LOCATION

3.1 The planning application site lies within the Hirwaun Industrial Estate, to the north of the A465 'Heads of the Valley' east-west trunk road, close to its junction with the A4059 / A4061 north-south route between Brecon and the Rhondda Valley. Road access to the site is gained from the A465(T) Heads of the Valley road via the A4061 Rhigos Road, which leads onto Fifth Avenue. The site has road accesses from Fifth Avenue to the south and Ninth Avenue to the east, built in conjunction with the phase I development on the site. These are currently sealed to deter unauthorised access. A map of the site and area is provided at figure 3.1.

#### SETTLEMENTS

3.2 The nearest large settlements in the area are Merthyr Tydfil, 11 km to the east, and Aberdare, 7 km to the south-east. Local settlements include Hirwaun, 2 km to the south-east of the site, the village of Penderyn 2 km to the north-north-east, and Rhigos, which lies 1.7 km to the south-west of the application site. There are isolated smaller dwellings closer to the site, and two hotels.

#### THE IMMEDIATE SURROUNDINGS

3.3 The site is located in an area of varied terrain. Whereas the Hirwaun Industrial Estate occupies a generally level area of land, the land rises gently to the south and east, and more steeply to the west and north. Established land uses in the locality are also diverse, with a variety of manufacturing, storage and waste reclamation activities taking place on the industrial estate itself, and with a large area to the south-east of the industrial estate occupied by the workings of the former Tower Colliery. Across Ninth Avenue from the application site stands a large industrial complex operated by Eden UK. On the southern side of Fifth Avenue to the south-east of the site there is a storage yard. The area to the north and west of the planning application site is more rural in character, comprising woodlands and well-defined fields used for pasture.

3.4 This urban-rural distinction is reflected in local authority boundaries, and it happens that the boundary between Rhondda Cynon Taf County Borough Council and the Brecon Beacons National Park Authority bisects the planning application site. For this reason, EWL's planning application has been submitted to both planning authorities. The division of the site into the two authorities is shown on the site plan at the back of this document.

3.5 Water storage, transfer and treatment facilities are a notable feature of the locality. Immediately to the north of the planning application site is the Penderyn reservoir, a lake formed by high artificial embankments. The reservoir is used for fishing by the Mountain Ash Fly Fishing Association (MAFFA). In addition to the reservoir there are operational pumping station and

treatment facilities at the northern end of Ninth Avenue and on both sides of Fifth Avenue to the south-west of the application site.

3.6 The boundaries of the planning application site are clearly defined on the ground, comprising Fifth Avenue to the south, Ninth Avenue to the east, a woodland screen below the reservoir embankment to the north, and wooded hedgerows on the western side. A stream on the western side of the site flows into the River Camnant nearby.

## Changes in the locality since 2010

3.7 In the wider neighbourhood the following developments have taken place since EWL's original planning applications were approved by RCT and BBNPA in 2010. All distances cited are minima.

- i). Pen y Cymoedd wind farm has been built on an upland ridge 3.5 km to the south of the application site. This 76 turbine development is located on land managed by Natural Resources Wales in the county boroughs of Rhondda Cynon Taf and Neath Port Talbot.
- ii). An electricity sub-station required to connect Pen y Cymoedd wind farm to the electricity distribution network has been built 475 metres to the west of the Application site on land at Fourteenth Avenue on Hirwaun Industrial Estate, on the southern side of the A465 Heads of the Valleys Road.
- iii). Three further wind farms are built or proposed to the south-south-east of the Enviroparks site, namely the operational nine turbine Mynydd Bwlifa wind farm (3.7 km distant), the operational eight-turbine Maerdy wind farm (5.8 km distant) and the unbuilt Abergorki wind farm (7.4 km distant), for which planning permission has been granted for three wind turbines.
- iv). A Development Consent Order under the Planning Act 2008 was made in July 2015 for an open cycle gas turbine power station to the north of Main Avenue on Hirwaun Industrial Estate, on the site of existing storage and distribution buildings owned by International Greetings UK Limited. The proposed power station would be 340 metres to the south of the Enviroparks site at its closest point.
- v). Planning permission is being sought for the change of use of Unit 43-44 Seventeenth Avenue on Hirwaun Industrial estate for a change of use to a wood pyrolysis unit. This site is a minimum 580 metres to the south-west of the Enviroparks site.
- vi). Green Frog Connect Limited is now operating a diesel-powered generation station providing short-term operating reserve power supply on land off Main Avenue on Hirwaun Industrial Estate, 400 metres to the south of the Enviroparks site.
- vii). Since the original planning permission was granted for the Enviroparks project, open-cast coal mining has taken place over an enlarged area of Tower Colliery, 1.5 km to the south of the site.

- viii). Improvements have continued on the A465 Heads of the Valley Road, which provides strategic road access to Hirwaun Industrial Estate. Upgrades to sections of the A465 between Dowlais and Brynmawr to the east of Hirwaun are complete, and improvements between Dowlais and Hirwaun are programmed to commence in 2018.

**THE SITE**

3.8 The planning application site is roughly square in shape and approximately seven hectares in area. Until the development of the first phase of the Enviroparks development began in 2015 the site comprised flat grassland with scrub vegetation. The site is classified as previously developed land, and ground investigations have identified made ground overlying the natural geology. The site has a well-defined network of drainage ditches in a regular herringbone pattern. It is understood that the site was levelled prepared for development by the former Welsh Development Agency approximately a decade ago. During the Second World War the site was used in association with a factory that made brass shell and bullet cases for munitions.

3.9 The principal change that has taken place on the application site itself since 2010 is construction of phase I of the Enviroparks development, which commenced in 2015 and is well advanced. This includes a large building, ‘Building 3’, known as the Fuel Preparation Hall, in the south-east part of the site, a gatehouse, an access road running across the site between Ninth Avenue and Fifth Avenue, temporary construction laydown and parking areas and foul and surface water drainage works. Figure 3.2 shows the layout plan for the phase I development, and Figures 3.3 – 3.5 comprise recent photographs of the site that show parts of the phase I development.



## Chapter Four

### SETTING THE DESIGN OBJECTIVES

#### STRUCTURE

**4.1** As explained in the introduction, the Enviroparks proposal is intended to be an exemplar of sustainability not solely in terms of its overall function as a resource recovery and energy production park, but in its design and construction. Correspondingly, the proposals were originally evolved in line with the six *Key Principles of Sustainable Design* set out in *Guidance for Sustainable Design in the National Parks of Wales* (2008). For the purposes of clarity these six headings form the structure of this chapter:

- energy
- materials and resources
- water use
- landscape and biodiversity
- place and local distinctiveness
- robust building

#### ENERGY

**4.2** The Enviroparks concept is to treat waste materials as a resource and to recycle material and recover energy in the most efficient and controlled manner. Consequently, the success of the scheme is dictated in part by the energy efficiency it achieves, and industry-leading technologies in energy recovery are thus a significant feature of the proposals.

**4.3** Inherent to the selection of the site and the design of the scheme has been the concept of trading energy generated during the resource recovery process back to a high energy-use business on the park. This approach of co-location enables optimal efficiencies.

#### MATERIALS AND RESOURCES

**4.4** Development of the site will be seen in the context both of the existing industrial estate and the surrounding landscape, and consequently the original selection of construction materials took account of the broader natural setting whilst also being an honest and functional proposal, recognising the scheme's purpose and the fact that the site is within an industrial estate and allocated for employment/industrial uses.

**4.5** A further design objective is to utilise a colour palette derived from this setting and which takes account of seasonality, weathering and contrast with its built and natural surroundings.

4.6 The current amended proposals would continue to use the construction materials and colour scheme approved for and employed in phase I of the Enviroparks development.

## WATER USE

4.7 Prior to development, the site had a well-defined network of drainage ditches in a regular herringbone pattern, although this overlaid boulder clay, which is a material of low permeability. Historical and recent evidence suggests that areas of the site can become saturated, and consequently the function and role of the existing drainage ditches will need not only to be replicated, but improved upon, in the development proposals.

4.8 Chapter eleven of the ES provides a detailed assessment of the impacts of the amended scheme in terms of drainage and flood risk, and elements of the scheme relating to the water environment are considered in Chapter five below.

## LANDSCAPE AND BIODIVERSITY

### Biodiversity

4.9 Avoiding harm to biodiversity, and contributing beneficially toward it, are key design objectives for the site given its proximity to national and internationally-designated sites. As explained in chapter thirteen of the Environmental Statement, the nature, scale and location of the scheme has required a very broad ecological assessment to be carried out. Over time this has included:

- a desk study and an Extended Phase 1 Habitat Survey combined with an assessment of the potential for legally protected wildlife species;
- evaluation of any previous ecological survey work;
- evaluation of the site in terms of its nature conservation value;
- establishment of a temporary wildlife protection area on the site during the phase I development.

4.10 A key finding of the above studies has been that the site itself is of low nature conservation interest, and that development of the site brings opportunities for positively enhancing biodiversity. Consequently, the introduction of a broad range of native vegetation species in the landscape and planting scheme around the boundary of the site is a key objective.

### Landscape

4.11 Given that the site lies partially within the protected landscape of the Brecon Beacons National Park, EWL has always recognised that the visual effects of the scheme are an important consideration. Any scheme on the site should therefore seek to enhance the quality of the landscape, having regard to the extent of the zone of visual influence (ZVI).

4.12 A visual appraisal of the planning application site found that the ZVI is generally limited, with immediate views into the site restricted by surrounding vegetation, topography and buildings. More distant views of the site are also often partially screened by intervening vegetation and feature the site as a small part of a much larger panorama. Whilst these distant views are from rural areas, the site itself is seen within the context a developed valley floor, including the town of Hirwaun and its associated industrial estates, the settlement of Rhigos to the west and collieries and opencast workings such as Tower Colliery.

4.13 An original design objective for the proposals was thus to reduce visual and landscape impact by measures including:

- a). minimising the scale of buildings and structures as far as is conducive to its effective operation of the scheme;
- b). using appropriate materials and a sensitive colour palette;
- c). providing screening and softening elements in proposals, particularly on the perimeter of the site.

4.14 Such design elements used in the EWL scheme are considered in chapter five below, and Chapter twelve of the ES addendum that accompanies EWL's planning application assesses the visual impact of the scheme in more detail. In the current amended scheme, the concealment of gasification units in a central building on the site and the deletion of the anaerobic digestion plant on the site serve to reduce the industrial character of the development, with buildings replacing prominent plant, machinery and tanks.

## PLACE AND LOCAL DISTINCTIVENESS

4.15 The design guidance summarised in chapter two of this DAS expects development proposals to be responsive to context and local distinctiveness. This presents something of a difficulty given that the Hirwaun Industrial Estate itself lacks design cues of high quality and distinctive character. Equally, cues from the wider rural landscape might not necessarily be readily echoed in functional industrial development proposals.

4.16 Vernacular styles would be inappropriate for buildings of the type currently proposed. Instead, EWL proposes to continue the design approach implemented for phase I of the Enviroparks development, with high quality building materials and a regressive colour palette designed to 'settle' the development in views across the wider landscape, in contrast to the off-white cladding that commonly features in industrial estate development.

## ROBUST BUILDING

4.17 It is integral to sustainable building design that proposals are able to cope with climate change, which is not limited to temperature increases. In Wales it is anticipated that there will be a trend towards more extreme weather, with hotter, drier summers and warmer, wetter and windier

winters. The current proposal to enclose the gasification units in a building will weather-proof the principal industrial plant on the site.

4.18 Potential future needs should also be taken into account, with a flexibility of design that allows for uses of the site to evolve over time as circumstances and requirements change. The amended proposals illustrate how the overall master plan for the Enviroparks site is able to adapt to evolving operational requirements whilst maintaining the design and access principles promoted in the original planning application for the proposals.

## Chapter Five

### PRODUCING THE DESIGN SOLUTION

#### INTRODUCTION

5.1 This structure of this chapter seeks to respond to the totality of the advice in national and local policy and guidance on design and access considerations, as summarised in chapter two of this DAS. The analysis below thus seeks to explain how the following aspects have been considered in detail through the design process:

- **Environmental sustainability** including landscape setting / habitat connections and biodiversity; energy and resource efficiency; and water and waste management;
- **Access and movement** in and to the development: choice of site location; inclusive design; transport integration; and connectivity;
- **Appearance and character** - scale of development; density and mix of development; layout of development; architectural design; external spaces; adjacent uses.
- **Public Safety** including crime prevention.

5.2 For the avoidance of doubt, this design and access statement has not addressed transport access to the site: this aspect of the application is addressed in chapter eight of the ES addendum that accompanies.

#### ENVIRONMENTAL SUSTAINABILITY

##### Landscape setting

5.3 As in the approved development layout for the site, it is proposed that there will be extensive planting and landscape works on the site boundaries. This will act as a natural buffer to the site, softening the angular lines of the built form. Significant planting will be also provided within the site, including along the boundary between the energy and waste sector of the site to the south-east, and the high-energy user facility to the north-west.

5.4 An extensive landscape treatment is proposed along the frontage of Fifth Avenue, incorporating native planting and water features. This will further soften the key public-facing boundary of the site in an attractive manner. The visitor centre is proposed to be set within extensive landscaping at the south-eastern corner of the site in order to provide an attractive focal point in a prominent position.

## Habitat connections

5.5 Ecological studies supporting this application (described in detail at chapter thirteen of the ES addendum) have reaffirmed that the Special Areas of Conservation (SACs), Sites of Special Scientific Interest (SSSIs), and Ancient Woodland in the wider locality do not appear to have any habitat connection to the application site. Nevertheless, measures promoting habitat and species connectivity have been taken into account in the development proposals, including the following.

- Landscape areas within the site will be designed to enhance existing and adjacent habitats.
- Appropriate zones of habitat transition or ‘ecotones’ will be established in the landscaped areas around the edges of the site. This would provide a natural gradation from intensely-managed amenity habitat to more natural habitats.
- Appropriate native species (or cultivars in the more amenity-focussed areas) and species of local provenance are proposed.
- The proposed development will have a landscape buffer strip along boundaries which will potentially provide foraging opportunities for bats.

## Biodiversity

5.6 Ecological studies supporting this application (see chapter thirteen of the ES addendum) have reassessed the effects of EWL’s proposals on habitats. As a consequence, various measures have been taken which seek to protect, promote or introduce native species wherever possible. Overall, these will have the potential of enhancing the biodiversity value of the area. Measures include the following.

- Approximately 0.3 ha of grassland habitats will be created, which will accommodate native species.
- Existing habitats areas along the northern and western boundaries (totalling approximately 0.9 ha) will be retained and enhanced.
- Landscaped areas will provide approximately 0.7 ha of woodland and scrub planting,
- An area of 0.17 ha of open water and associated reedbed/marginal aquatic vegetation will be created within the southern landscape area.

5.7 The overall intention of these measures is twofold: to provide attractive screening, and to enhance the biodiversity of a relatively sterile site. Although an off-site mitigation, it is noteworthy that EWL has already made a financial contribution of £205,031 to the conservation group Butterfly Conservation to enable the management of local grassland habitats.

## Energy and resource efficiency

5.8 The Enviroparks concept is intended to be inherently sustainable, recovering as much energy and material resources as practicable from the waste stream.

5.9 The development is to be situated on a recovered brownfield site that is allocated for industrial development. Redeveloping brownfield land is energy and resource efficient in terms of promoting settlement patterns that minimise land-take and urban sprawl.

5.10 Rainwater will be collected for use in the resource recovery and energy production process, and this represents a renewable resource, minimising the requirement for mains-sourced water.

5.11 The buildings approved in 2010 were intended to meet BREEAM ‘Excellent’ standards. BREEAM is a recognised sustainability assessment method for master-planning projects, infrastructure and buildings. It addresses a number of lifecycle stages such as *New Construction*, *Refurbishment* and *In-Use*. When EWL originally acquired land on Hirwaun Industrial Estate from the Welsh Government, a condition of sale was that any development should comply to a BREEAM ‘Excellent’ rating. The Welsh Government no longer applies this policy. However, the BREEAM requirement was reinforced by BBNPA through a planning condition attached to the planning permission granted for the Enviroparks project in 2010.

5.12 In October 2015 BBNPA approved a non-material amendment that had the effect of excluding the phase I development (the gatehouse and Fuel Preparation Hall) from the requirement to achieve a BREEAM ‘Excellent’ rating. The non-material amendment application was supported by a letter from EWL’S advisor, Waterman, explaining why the standard should not apply. In summary these were:

#### ***Gatehouse***

*Previously, under Welsh Government policy, non-residential buildings with a floor space of 1000m<sup>2</sup> or more must meet the BREEAM ‘Very Good’ standard and achieve an ‘Excellent’ standard under Ene 1 reduction of CO<sub>2</sub> emissions. Considering this policy no longer applies and that the development is only 110m<sup>2</sup> we consider BREEAM ‘Excellent’ standard unrealistic with high financial cost with little return and a negligible reduction in environmental impact.*

#### ***MRF (Fuel Preparation Area) Building***

*The building is unheated and does not require a Part L assessment under Building Regulations. BREEAM must be based on thermally conditioned building and therefore must be modelled under Part L assessment as a heated building to demonstrate compliance. The modelling must also take into account thermal efficiencies of elements which are not relevant due to the purpose of the building. Therefore the mandatory credits under ENE 01 reduction in CO<sub>2</sub> emissions are unattainable.*

*The BREEAM standards also require an appraisal of the building performance in relation to thermal performance, acoustic performance and testing; view out for office workers, humidification, energy consumption etc. which are not applicable given the purpose of the MRF building. Furthermore sites in remote locations with little opportunities for ecological enhancement are unable to achieve BREEAM’.*

5.13 Waterman's letter concludes:

*We conclude that based upon the pre-assessment of the development is unlikely to score highly in any other section of the BREEAM assessment due to the BREEAM energy standards, location of the site, end use and limited opportunities for ecological enhancement. Therefore we do not feel that achieving a BREEAM rating will provide any further reductions in environmental impact or benefit the development.*

5.14 Other than for heat generated by process equipment, the Fuel Storage Hall, Turbine Hall, and Gasification Hall that form the subject of the current planning application would be unheated and should be exempted from BREEAM requirements for the same reasons as the Fuel Preparation Hall. Similarly, the Visitor Centre, with a floor space of 791m<sup>2</sup>, should be exempt for the same reasons as the Gatehouse.

## Water and waste management

5.15 The EWL scheme presents a comprehensive approach for sustainably managing water and waste. Mitigation measures proposed for the development, in order to control the potential impacts on water quality and quantity, include the following:

- process waters will be recirculated where possible, and surface water runoff will be collected and used;
- adequate storage for surface water run off will be provided, with the provision of tanks for clean roof run-off and a SUDS system with holding pond for other waters;
- abatement techniques such as interceptors and reed beds will ensure that potentially dirty run-off water is cleaned prior to entering the holding pond;
- high-performance effluent treatment systems will be provided to enable the site to re-use water where possible, or to discharge within any potential consent;
- comprehensive impermeable hardstanding will be provided in operational areas, whilst landscaping in non-operational areas will be retained;
- where possible, grey water from the site will be re-used for flushing toilets.

5.16 Enviroparks will also implement a comprehensive system of management and maintenance procedures, in order to ensure that mitigation measures implemented remain effective and efficient. Further detail of the above proposed measures, and the impact of them, are assessed in chapter eleven of the *Environmental Statement*.

## Summary

5.17 In view of the above measures, it is concluded that the proposals conform with relevant development plan design policy and Welsh Government policy and advice, summarised in chapter two of this DAS, in terms of environmental sustainability.

## ACCESS AND MOVEMENT

### Inclusive design

5.18 EWL's proposals have been designed in order to provide a fully inclusive and accessible environment, in accordance with the Equality Act 2010, BS 8300:2001 and Building Regulations approved Document Part M.

5.19 New vehicular and pedestrian/cycle routes will be introduced within the site, and these will integrate with existing infrastructure in Hirwaun Industrial Estate. All new pedestrian routes will be 1.8 metres wide in order to facilitate the passing of wheelchairs, and these will provide unobstructed level access. Wherever possible, the gradient of external areas and pedestrian areas will not exceed a gradient of 1:21, in order to reduce the need for ramped access. The primary entrance to each building will be prominent and have a visual relationship with its surroundings.

5.20 All paving will be slip-resistant and reasonably smooth, and tactile paving will be used at crossing points in order to highlight dropped kerbs, and to warn of hazards generally. Disabled parking for the development will be provided to a higher level than the minimum requirements of BS 8300:2001 at a minimum of 5% of the overall parking capacity to meet RCT's standards, and this will cater for both employees and visitors. There will be a 1,200 mm zone between all disabled parking spaces and roadways within the site.

5.21 Disabled parking is to be provided close to entrances with a level approach no steeper than a ratio of 1:21. All external entrance doors are to be provided with flush thresholds and clear openings in excess of 850mm. The fenestration and ironmongery will be fully compliant with the current Building Regulations Approved Document Part M. Entrance doors will be fitted with powered openers.

5.22 Internally, all entrance lobbies will be provided of a size sufficient for a wheelchair user to turn in. Entrance lobbies will be provided with ambulant disabled stairs, with lifts or platform lifts where required. Stairs will have handrails and colour-contrasting treads and risers.

5.23 Disabled toilet facilities will be accessible from lobby areas and provided in accordance with BS 8300:2001. All internal doors will contrast visually other wall and floor surfaces, and doors will have a 300mm leading edge where required. Manually-opening doors will have an opening force not in excess of 20 Newtons at the leading edge. All ironmongery to internal doors will be visually contrasting. Vision panels will be fitted to internal doors on circulation routes in compliance with Building Regulations Approved Document Part M.

### Transport integration and connectivity

5.24 The proposed location of the Enviroparks development should reduce reliance on the private motor vehicle, because the site is accessible from local communities by bus and bicycle. The section 106 agreement for the existing development includes provision for:

- a Green Travel Plan administered by a Green Travel Plan Coordinator;

- an index-linked ‘bus stop contribution’ of £16,000 for the improvement, upgrading and future maintenance of existing public transport infrastructure in relation to the bus stops at Rhigos Road, Hirwaun, to serve the site in conjunction with the Green Travel Plan.
- a ‘cycling and walking scheme’ to promote commuting to the site by these means;
- a commitment to implement a ‘car sharing scheme’, with preferential on-site parking for participants.

5.25 It is proposed to maintain all of these planning obligations in the revised development proposals that form the subject of the current planning application.

5.26 Regular bus services serve Hirwaun Industrial Estate during commuting hours, providing links to many of the settlements where the workforce for the facility might live, including Hirwaun, Aberdare, Penywaun, Glynneath and Rhigos. The site is also adjacent to the route of the National Cycle Network, promoted by *Sustrans*. Safe pedestrian access from the rest of Hirwaun Industrial Estate is available. The development would incorporate covered bicycle parking and showering / changing facilities for employees who cycle to work.

5.27 Being an allocated site within an established industrial area, the application site enjoys good road access, capable of safely accommodating the transport needs created by the proposed development. As explained in the transport chapter of the ES addendum, the site has an appropriate standard of highway access for the uses proposed.

## Summary

5.28 In view of the above measures it is considered that the proposals comply with all relevant design policy on access and movement referenced in chapter two of this DAS.

## APPEARANCE AND CHARACTER

### Layout of the development

5.29 Siting and layout are essential considerations in any development, affecting whether proposals can be integrated into their surroundings, contributing to and enhancing the local sense of place. The amended development is intended to integrate into Hirwaun Industrial Estate and its existing infrastructure, reflecting the building lines of adjacent development.

5.30 The Enviroparks site is divided into two areas: the waste-to-energy site, which will include all parts of the process, and the high energy user site, which will accommodate conventional use class B1 or B2 industrial uses. These two areas are proposed to have a separate entrance and a shared exit. It is intended that the sites are separated with fencing set into a landscape buffer between the sites. This is designed to ensure security whilst softening the centre of the site visually.

5.31 The site is situated adjacent to Fifth and Ninth Avenues, and the visitor centre is located beside the intersection of these roads in order to provide a point of visual interest on the main approach to the site. This interest would be further enhanced by an attractive scheme of landscape and planting along the frontage of Fifth Avenue, incorporating native planting and water features.

5.32 The main entrance to the site would be situated adjacent to the visitor centre off Ninth Avenue. When entering the site, car users (staff and visitors) would be directed to the landscaped parking area opposite the entrance. A short cycle and pedestrian access lane enables access to the visitor centre building. Works vehicles would use the separate main service route through the site, which would be a one-way system. This layout ensures safety, security and convenience.

5.33 The proposed buildings are situated around the service route in an order reflecting the various requirements of the resource recovery processes. The existing Fuel Preparation Hall is thus adjacent to the site entrance, behind the gatehouse. These will receive deliveries of feedstocks for the waste-to-energy processes.

5.34 The process units have been positioned so that wherever possible they are inward-facing. In being so arranged, this provides a visual buffer from the daily working activities, as well as an acoustic buffer to the areas adjacent the site. This arrangement furthermore enhances natural surveillance and improves site security.

### Scale of development

5.35 The scale and height of the buildings in the amended scheme are intended to maintain similar proportions to existing buildings on the Hirwaun Industrial Estate, in order that the massing of the proposed Enviroparks development is coherent with its neighbours, including the Eden UK complex immediately to the east.

5.36 The variety of building sizes and heights in the amended proposal would provide visual interest within the site and articulate its use. Buildings are only as high as they need to be for operational purposes, including maintenance and the provision of internal gantry cranes over the bunkers in the Fuel Storage Hall on the Fifth Avenue frontage, which has necessitated a two metre increase in eaves and ridge heights in comparison with the approved but unimplemented building on this part of the site. Similarly, the height of the Gasification Hall proposed in the central area of the site reflects the height of the operational plant and machinery that need to be accommodated.

### Density and mix of development

5.37 The density of the site is high, in order to make best and most efficient use of the land. Furthermore a fairly dense arrangement of buildings and processes in the resource recovery element of the scheme allows the area within the north-western part of the site, reserved for a high-energy user, to be as large as possible. This provides additional flexibility for that user.

5.38 The mixture of development has been determined by the Enviroparks concept, which encompasses resource recovery and energy production processes within a single site. The inclusion of a visitor centre is integral to the concept, seeking to promote education in the field of sustainability, energy and the environment.

## Architectural design

5.39 The proposed development seeks to establish a scale and massing that responds to the topography and buildings in the locality, whilst connecting the proposals to its immediate surroundings in a manner that will create a sense of place.

5.40 The design of the elevations has been considered carefully throughout the evolution of the project as a whole, with four main objectives:

- i). to ensure that the development is a coherent extension of the existing industrial estate;
- ii). to create the sense of a ‘family’ of buildings, creating an identity for the site;
- iii). to be sympathetic to its surroundings;
- iv). to create a quality environment with a sense of good design.

5.41 In order to unify the development and provide a sense of a family of buildings and materials, colours will be selected from a uniform palette. The following materials were approved for phase I of the Enviroparks development (i.e. the Fuel Preparation Hall, now built) and sympathetically selected in order to suit the modern industrial function of the scheme whilst reflecting the site’s position in relation to the Brecon Beacons National Park:

- cedar boarding (external walls)
- metal cladding, both smooth and profiled (external walls)
- metal standing seam roof

5.42 The deployment of these selected materials will vary slightly on each building. However the unified palette is intended to tie the development together, reflecting the natural earthy tones of the surrounding area and complementing the proposed cedar boarding.

- Roofs: Seal (RAL 040 50 05)
- External walls (metal cladding): Heather (RAL 040 70 05) and Fox Brown (RAL 040 50 02)

5.43 The variation of complementary materials is intended to create visual interest by providing contrast in terms of colour and texture. The fenestration of the larger buildings – in panels of contrasting colour and texture – would reduce the apparent massing of the larger buildings on the site. It is proposed that all buildings except the visitor centre would have a metal standing seam roof and a mid-to-dark tone grey finish in order to provide grounding to the elevations.

5.44 The proposed buildings would also share common detailing, including high-level cedar boarding running in a band around the elevations below the eaves. The corners of each building would typically be framed with cedar boarding, although in some cases these would be substituted by glazing panels. The intention is for the cedar boarding to frame the elevations, providing a contrast to the panels of metal cladding that will alternate in colour and texture. This will help to reduce the massing of the larger buildings to a more human scale, and it will also provide visual and

textual contrast and interest. These measures would also help to break up the appearance of the larger buildings in distant views.

5.45 Proposed variations in colour and materials would be used to accentuate entrances and the junctions between buildings. This will enhance the sense of a family of buildings and promote overall design legibility. The use of a variety of differently-shaped elements and materials on the elevations will also help to reduce the horizontal emphasis of the larger buildings.

5.46 In all cases, the front elevations include a main entrance, where the visitor would be presented with a glazed entrance with a canopy extending over it that would be set either into full-height glazing or into a contrasting panel of visual prominence, making the entrances clearly legible.

5.47 Doors and fenestration will be integrated into the elevations in a consistent manner, as will louvres required in horizontal bands for ventilation systems on the Gasification Hall. All loading doors will have clear numeral signage to identify them and to ensure clear legibility.

### External spaces

5.48 The proposed visitor centre would be set amongst an extensive landscaped area at the south-eastern corner of the site, in order to provide a prominent and attractive focal point, adding legibility to the site entrance. It is intended that the immediate area outside the visitors centre would be used as amenity space, with outdoor seating for visitors and staff to enjoy.

5.49 A landscaped car park is proposed for staff and visitors, with a separate access route to the secure site for works vehicles, screened behind landscape features. The disposition of the open spaces within the secured area of the site beyond the gatehouse have been determined primarily by the needs of the resource recovery processes, which will have an occasional requirement for large machinery to be moved for repair or replacement. Where possible, landscape features and planting are proposed in order to soften routes through the site and provide visual interest.

5.50 The external service yard to the west of the Gasification Hall would be screened by adjacent buildings and, inside the south-west corner of the site, a belt of trees and shrubs designed for visual impermeability. This would replace the green wall in the approved scheme.

5.51 An external lighting scheme was designed and approved during the discharge of planning conditions for Phase 1 of the development. Lighting for the development phase now proposed will be designed to be compatible and complementary to the existing approved design and will have particular regard to the landscape setting. The design, angle, positioning and intensity are designed to reduce off-site light pollution and lights would be controllable by staff to ensure that external illumination is only provided in places and at a level commensurate with operational safety and security. This approach is consistent with the International Dark Sky Reserve status of the National Park.

### Adjacent uses

5.52 As noted above, the scale and height of the proposed buildings are intended to maintain similar proportions to existing buildings in the Hirwaun Industrial Estate, to promote a wider sense of

physical consistency and visual coherence. This is principally relevant to the existing industrial buildings operated by Eden UK across Ninth Avenue to the east of the application site.

5.53 Existing habitat areas along the northern and western boundaries would be retained and enhanced, and a comprehensive planting and landscape scheme to the southern boundary of the site is proposed to present an attractive frontage to passers-by on Fifth Avenue.

### **Public safety and security**

5.54 A range of design measures is proposed in the scheme to address issues of public safety and security, over and above the statutory requirements in terms of public health and other matters the subject of regulatory regimes other than the planning system.

- Doors and windows are located in areas where they can provide natural surveillance within the site for security and safety reasons.
- The two major sectors of the site - the waste-to-energy area, and the high-energy user - are separated with fencing set into a landscaped buffer between the sites to ensure security.
- Various units are inward-facing in order to enhance natural surveillance and improve site security.

### **Summary**

5.55 In view of the above measures it is considered that the proposals comply with all relevant design policy on appearance and character, as described in chapter two of this DAS.

## Chapter Six CONCLUSION

### SUMMARY

6.1 This design and access statement has explained in detail how EWL has employed high-quality and innovative site planning, architecture and landscape design to render the amended Enviroparks proposal a visually self-contained development, responsive to its setting and maintaining the design and access principles established for the Enviroparks development approved in 2010 whilst meeting operational requirements.

6.2 The overall conclusions of this design and access statement are as follows.

- i). A sensitive response has been taken within the setting of the Brecon Beacons National Park, through a combination of site planning, architecture, building materials specification, external lighting control and landscape and planting.
- ii). The design and layout of the proposals have sought to respond to, and improve upon, the environmental and setting of Hirwaun Industrial Estate. The proposals are designed to be less visually prominent and more integrated into the landscape than existing and consented developments and structures in the locality.
- iii). The proposed development is intended to be innovative, modern and characteristic of a high technology business or light industrial user. It aims to set high standards of building design.
- iv). Full statutory requirements in terms of inclusive design accessibility have been met. EWL is committed to retain all of the green travel provisions agreed in the section 106 agreement for the approved development.
- v). External signage and lighting are minimal and are designed in order to be visually harmonious in the surroundings.

6.3 In view of the above, therefore, the scheme is considered to meet all statutory and development plan requirements in terms of design and access.