Proposed extension to the Maesgwyn wind farm, Glyn-neath, Wales
REVISED DESIGN AND ACCESS STATEMENT

September 2015

Pennant Walters (MAESX) Limited

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Contents

1 Introduction

1.1 Background

1.1.1 This report accompanies a revised application by Pennant Walters (MAESX) Limited (the applicant) to Neath Port Talbot County Borough Council (the local planning authority) for full planning permission for an extension of the existing Maesgwyn wind farm on land to the north of Glyn-neath: application ref: P/2014/0733.

1.1.2 The proposal includes the erection of 5 wind turbines, which will generate electricity for the National Grid. The scheme has a maximum rated capacity of 12.5 megawatts (MW), sufficient to power approximately 7,500 homes. Planning permission is sought for an operational period of 25 years, after which the wind farm would be decommissioned and the land restored.

1.1.3 The planning application is accompanied by an environmental statement (ES) prepared in accordance with the **Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999** and by Supplementary Environmental Information (SEI). These record the environmental impact assessment (EIA) of the proposal and include detailed consideration of the application and surrounding area, relevant planning policies, potential effects of the proposed development and, where possible and practicable, the measures proposed to mitigate any significant adverse effects.

1.2 Purpose of the report

1.2.1 This report describes the design and access proposals for the proposed development. It fulfils the statutory requirements for an application for planning permission to be accompanied by a design and access statement, as required by **The Town and Country Planning (Development Management Procedure) (Wales) Order 2012** (2012 No. 801 (W.110)).

1.2.2 Article 7 of the Order sets out those matters that must be covered in a design and access statement. In relation to **design** these are to:

- explain the design principles and concepts that have been applied to the following aspects of the development:
  - environmental sustainability;
  - movement to, from and within the development;
  - character, which includes any landscaping comprised in the development and the amount, layout, scale and appearance of the development; and
  - community safety.
- demonstrate the steps taken to appraise the context of the development and how the design of the development takes that context into account in relation to its proposed use and each of the aspects listed above.

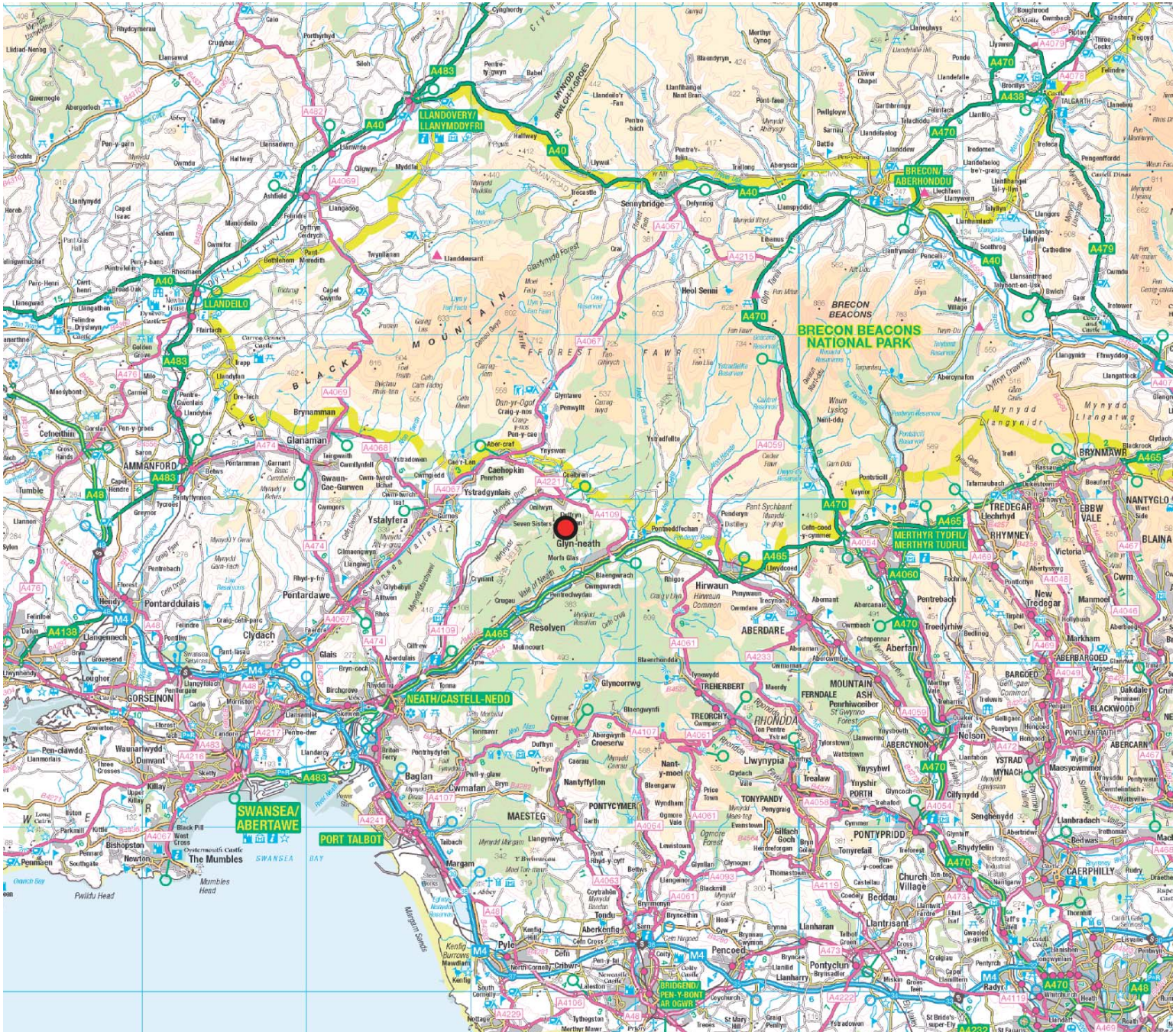
1.2.3 In relation to **access** these are to explain:

- the policy or approach adopted as to access and how policies relating to access in the development plan have been taken into account;
- how any specific issues which might affect access to the development have been addressed; and
- how features which ensure access to the development will be maintained.

1.2.4 The design and access statement included in this report satisfies the advisory requirements in **Technical Advice Note 12: Design** published by the Welsh Assembly Government (July 2014).

1.2.5 As required by the Order and advised by TAN 12, this report contains a section on planning policies.

1.2.6 Neath Port Talbot County Borough Council has adopted practice guidelines for the preparation of design and access statements. A checklist of these requirements is



Left Extract from drawing 1.01 **Regional site location** (not to scale)

Key

Site location

North

included at Chapter 8.0 of this report.

1.3 Structure of the report

1.3.1 Following this introduction, the main body of this report is presented in six chapters:

- Chapter 2 contains a summary appraisal of the site context.
- Chapter 3 summarises relevant planning polices at national and local levels.
- Chapter 4 describes the design of the proposed development.
- Chapter 5 considers environmental sustainability.
- Chapter 6 deals with movement and access.
- Chapter 7 considers community safety.
- Chapter 8 is a checklist of Neath Port Talbot County Borough Council's requirements for design and access statements.

1.4 The application

1.4.1 The application seeks full planning permission for development described as:

'Extension of the existing Maesgwyn wind farm with an installed capacity of up to 12.5 MW, comprising 5 wind turbines, anemometer mast, two sub-stations and a control building, access tracks and all associated building and engineering operations and landscaping, for an operational period of 25 years.'

1.4.2 The following drawings form part of the planning application:

- Figure 1.2B Application site
- Figure 3.1B Turbine and access track layout
- Figure 3.2 Turbine design
- Figure 3.3 Anemometer mast
- Figure 3.4 Sub-station
- Figure 3.5 Control building
- Figure 3.6 Access track and cable trench construction.

1.5 Consultations

1.5.1 As part of the process of designing the project and assessing its potential environmental effects, the applicant consulted a wide range of organisations. In addition, the proposals have been the subject of pre- and post- application discussions with officers of the local planning authority, Neath Port Talbot County Borough Council, whose comments have been taken into account.

1.5.2 Public exhibitions of the proposed wind farm extension were held on Monday, 19 May 2014 at the Community Hall, Seven Sisters, Tuesday, 20 May 2014 at Bethania Community Centre, Glyn-neath and Wednesday, 21 May 2014 at Banwen Rugby Football Club, Banwen. The exhibitions were advertised beforehand and were staffed throughout the day and evening by representatives of the applicant, who were available to explain the proposals and to discuss them with local residents and other attendees. Visitors were given an opportunity to complete a feedback form. In total, the exhibitions were attended by 67 people.

2 Site context

2.1 Introduction

2.1.1 The site for the purposes of seeking planning permission is outlined in red on the application site plan. It includes the existing access track to the wind farm from the A4109 Inter Valley Road. The study area (that is, the area over which surveys and analyses were undertaken) is wider than the application site and varies according to the topic under review. For the landscape and visual impact assessment, for example, a very wide study area is used: viewpoints were considered within a 35km radius of the site.

2.1.2 Detailed descriptions of the application site and study area are included in the submitted ES. This section of the design and access statement therefore summarises only the basic aspects of the site context appraisal.

2.2 Location

2.2.1 The site is situated on the northern end of Hirfynydd, a broad rounded ridgeline between the head of the Dulais Valley and the Upper Neath Valley. The nearest settlements are Banwen, Dyffryn Cellwen and Coelbren to the north, Seven Sisters to the west, Glyn-neath to the south, Pont-walby to the south-east and Pontneddfechan to the east.

2.2.2 The site is not located in an area of restraint such as a National Park or an Area of Outstanding Natural Beauty (AONB). The closest such areas to the site are the Brecon Beacons National Park to the north (0.3 km) and the Gower AONB to the west (over 30 km).

2.2.3 The proposed turbines are located within Strategic Search Area E: Pontardawe, which has been identified by the Welsh Government in **Technical Advice Note 8: Planning for Renewable Energy** (July 2005) as one of seven areas in Wales in which large scale (defined as over 25 MW) onshore wind developments should be concentrated.

2.3 Accessibility

2.3.1 The existing wind farm is served by the private access track leading southwards from the A4109, which also serves the Walters Arena. The proposed extension would be accessed using the same track, extended as necessary to serve the proposed turbines.

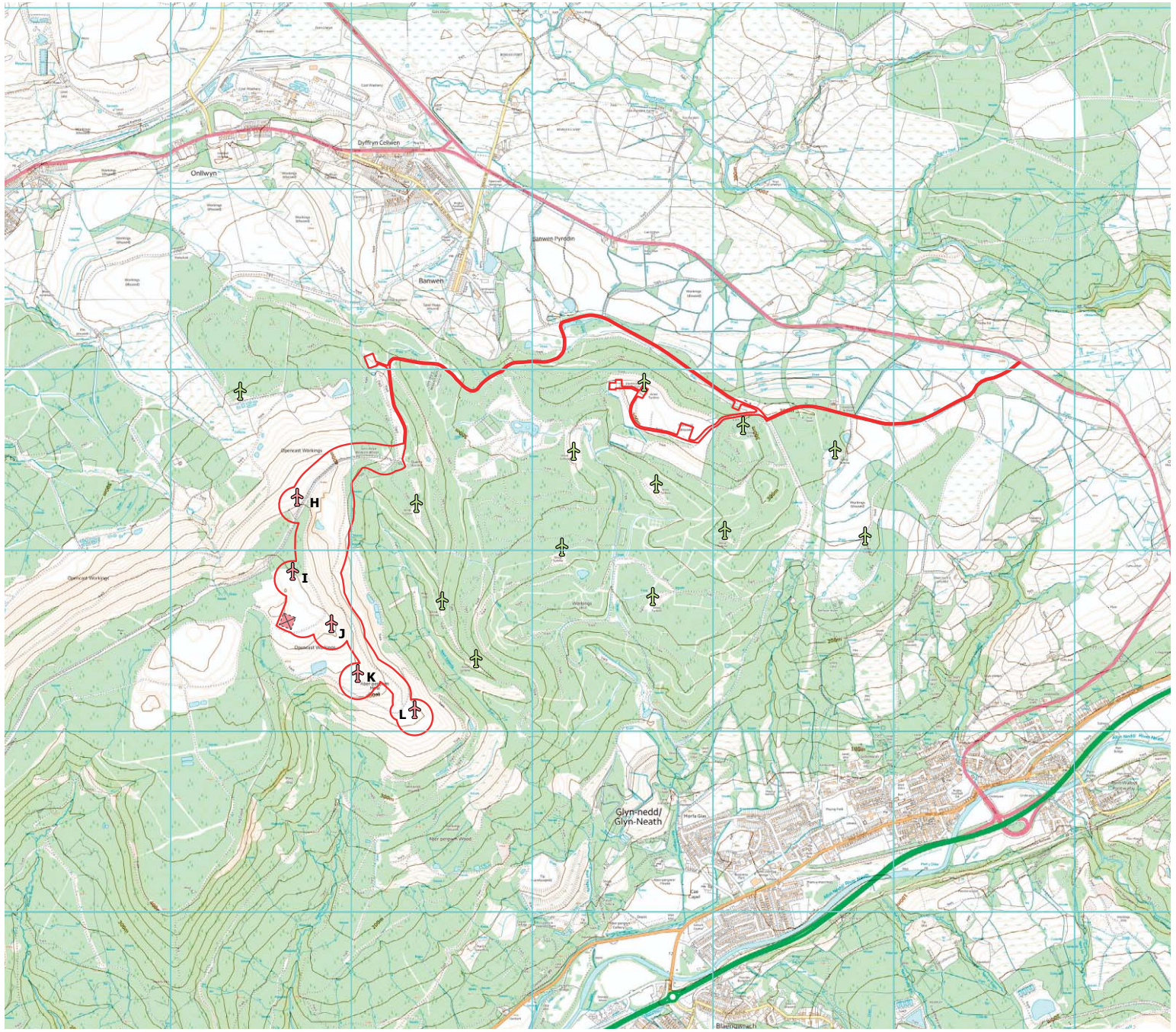
2.3.2 When the existing wind farm was built, the turbine components were delivered on large, purpose-designed vehicles, known as abnormal indivisible loads (AILs). These left the M4 motorway at junction 43 near Neath and travelled to the site via the A465(T) Heads of the Valleys trunk road to Glyn-neath and then via the A4109 to the site entrance. The same route would be used when delivering the AILs for the proposed extension.

2.3.3 The application site does not contain “open access land” (designated under the **Countryside and Rights of Way Act 2000**) but is crossed by a number of public rights of way. Their existence has been taken into account in the design of the development.

2.4 Physical and environmental features

2.4.1 **Topography:** The site occupies an upland location and lies at an elevation of between approximately 250 and 450 metres (m) above Ordnance Datum (AOD). The highest point is to the west, with the general land form sloping east towards the A4109 Inter Valley Road.

2.4.2 **Hydrology: Technical Advice Note 15: Development and Flood Risk** (Welsh Assembly Government, July 2004) sets out current policy on development and flood risk. The TAN refers to a series of Development Advice Maps, also published by the Welsh Government, which categorise flood risk according to the severity of the risk. The relevant map classifies the site as Zone A; this indicates that it is considered to be at little or no risk of flooding.



Left Extract from drawing 1.02B
Application site (not to scale)

Key

- Application site
- Existing Maesgwyn turbines
- Proposed Maesgwyn extension turbines
- Proposed anemometer mast

North

2.4.3 **Ground conditions:** The majority of the site is underlain by the made ground associated with the extensive open-cast coal mining history of the area. The western extent of the open-cast mining area is marked by the Glyncorrwg Fault, which lies to the west of the site. A peat survey has been undertaken; none was found within the footprint of the proposed turbines.

2.4.4 **Cultural heritage:** The site does not contain any scheduled monuments, listed buildings or conservation areas. There are 12 scheduled monuments, 26 listed buildings and one conservation area within 3 km. The nearest scheduled monument is the Roman marching camp near Coelbren; the nearest listed building is Aberpergwm House; and the nearest conservation area is at Glyn-neath.

2.4.5 The site does not form part of an area identified in the non-statutory **Register of Landscapes, Parks and Gardens of Special Historic Interest in Wales** (Cadw). The nearest such area is at Rheola, an early nineteenth-century villa, approximately 2 km to the south.

2.4.6 **Ecology:** The site does not contain or form part of any area that has been statutorily designated for its nature conservation value on either an international or a national basis, such as a Special Protection Area (SPA), Special Area of Conservation (SAC), Ramsar site, National Nature Reserve (NNR), Site of Special Scientific Interest (SSSI) or Local Nature Reserve (LNR). There are one SAC, one NNR and 13 SSSIs within 5 km of the site.

2.4.7 The site contains two candidate (draft) Sites of Importance for Nature Conservation (SINCs).

2.4.8 Detailed ecology surveys have been carried out a period of years, all of which are reported in detail in the ES and SEI. Ecology constraints have been taken into account in the wind farm layout design and measures have been incorporated to avoid or minimise the predicted impacts on any ecological receptors. As a result, there are not expected to be any significant residual impacts as a result of the scheme.

2.4.9 **Trees:** The site does not contain any trees that are protected by Tree Preservation Orders.

2.4.10 **Land use:** Much of the site forms part of the Walters Arena, a multi-use motor testing, driver training and motor sport event destination. Other land within the site is in use as forestry for timber growing and some in agricultural use, used for grazing. The latter comprises low quality agricultural land. Once the proposed extension has been built, grazing can take place around the turbines .

2.5 Social and economic context

2.5.1 Climate change is a societal issue which Government at all levels has agreed to address. A principal response is the creation of additional sources of clean, renewable energy.

2.5.2 The turbines within an area designated in national planning policy for the development of large scale (defined as over 25 MW) wind farms. The site overlaps with and adjoins an existing wind farm, for which the Council granted planning permission in 2008.

2.6 Constraints and opportunities

2.6.1 The site is substantially free of environmental constraints. The choice of site has been guided by the absence of environmental restraints as well as its technical suitability.

3 Planning policy framework

3.1 Introduction

3.1.1 Chapter 13 of the submitted ES and SEI reviews in detail the planning policy framework against which the application for the proposed development should be considered. In summary, this comprises:

- the development plan: the adopted **Neath Port Talbot Unitary Development Plan 2001-2016**;
- the emerging development plan: the draft **Neath Port Talbot Local Development Plan 2011-2026**;
- the national spatial plan: **People, Places, Futures: The Wales Spatial Plan Update 2008**;
- national planning policy guidance: particularly **Planning Policy Wales Edition 7** and the series of Technical Advice Notes, especially **TAN 8: Planning for Renewable Energy**; and
- local guidance.

3.2 Development plan

3.2.1 The **Neath Port Talbot Unitary Development Plan** encourages opportunities to create renewable energy and this is reflected in UDP **Policy IE6**, which states:

'Policy IE6 Renewable Energy Proposals for the creation of renewable energy will be supported provided their impacts are acceptable and where appropriate they includes measures to reinstate the land.'

This policy does not refer specifically to "design" or "access", but other UDP policies do.

3.2.2 Other UDP policies of potential relevance to the proposal are as follows:

- **Policy GC1**, which states that a proposal will not be permitted if it would create an unacceptable impact in failing to address certain matters.
- **Policy GC**2, which is similar to Policy GC1 in respect of engineering operations.
- **Policy ENV1**, which states that development in the countryside will not be permitted unless certain criteria are met - of which criterion (h) allows for development necessary for renewable energy generation - and subject to there being no unacceptable impacts upon the character or appearance of the countryside, biodiversity, the amenities of residents and other users, traffic generation and highway safety.
- **Policy ENV3**, which resists proposals that would create unacceptable impacts on the landscape. The policy places particular emphasis on protecting significant skylines, views and panoramas, features important to the character of the local landscape and landscapes, parks and gardens of special historic interest.
- **Policy ENV4**, which states that proposals that would adversely affect the integrity of an international or national site for nature conservation will not be permitted except in specified cases.
- **Policy ENV5**, which states that proposals that would unacceptably damage or destroy significant local habitats and species will not be permitted. The policy also sets out nature conservation considerations in respect of new development.
- **Policy ENV6**, which states that non-agricultural land or lower quality agricultural land should be used, except in certain cases.
- **Policy ENV11**, which seeks to resist proposals located in a flood risk areas.
- **Policy ENV12**, which states that proposals that would be prejudicial to or would materially affect the quality or quantity of controlled waters will not be permitted.

- **Policy ENV14**, which states that proposals that would create, affect or might be affected by potentially unstable land will not be permitted unless appropriate measures are proposed to overcome unacceptable risks.
- **Policy ENV15**, which states that proposals that would be likely to have an unacceptable adverse effect on air quality will not be permitted.
- **Policy ENV16**, which states that proposals that would affect land which is or is likely to be contaminated will not be permitted unless appropriate investigations and measures are undertaken.
- **Policy ENV17**, which states that any proposal that would involve new construction should be well designed.
- **Policy ENV19**, which states that proposals within conversation areas or that would affect the setting of a listed building will be permitted only where they satisfy certain criteria.
- **Policies ENV22, 23 and 24**, which set out criteria in relation to the effect of proposed development on archaeological remains, their evaluation and recording.
- **Policy ENV29**, which states that development which would adversely affect the environmental quality or amenity of the surrounding area through causing unacceptable levels of pollution, disturbance, noise or nuisance will not be permitted.
- **Policy CS1**, which states that proposals that would be likely to create unacceptable impacts on existing and programmed community facilities and services will be resisted.
- **Policy RO4**, which supports proposals that improve and extend access to the countryside and coast, including cycleway, pedestrian and bridleway networks.

3.2.3 The proposed development complies with all applicable LDP policies.

3.2.4 The Council is currently preparing the **Neath Port Talbot Local Development Plan**, but it has not yet reached a stage where it is of signifncant weight in the determination of this application.

3.3 National planning policy

3.3.1 The Welsh Government's **People, Places, Futures: The Wales Spatial Plan 2008 Update** notes that climate change is an urgent and compelling issue.

3.3.2 Chapter 4 of **Planning Policy Wales Edition 7** emphasises the importance of sustainable development. The underpinning principles (section 4.3) include tackling climate change. The objectives (section 4.4) include supporting the need to tackle the causes of climate change and mitigating its consequences. Paragraphs 12.10.1 to 6 deal with development management and renewable energy and set out the factors that local planning authorities should take into account when determining planning applications for renewable energy development.

3.3.3 TAN 8 identifies seven Strategic Search Areas (SSAs) in Wales: considered by the Welsh Government to be the most appropriate locations for large scale wind farm development. The proposed turbines lie within SSA E: Pontardawe.

3.3.4 The proposed development therefore has the benefits of:

- being sited within a defined SSA;
- containing the locational advantages and characteristics associated with a SSA;
- the Welsh Government's encouragement (a) to the industry to focus attention on the SSAs and (b) to local planning authorities to generally respond positively to such developments; and

- the ability to make an important contribution to meeting the assessed

potential for energy production from the SSA.

3.3.5 In 2005 Neath Port Talbot County Borough Council commissioned a "refinement" study of SSA E, responding to the advice in Annex D of TAN 8. As the study was predicated on the 2010 targets set out in TAN 8, it is of limited relevance today. Notwithstanding this, it is worth noting that all the proposed turbines fall within two of the three highest ranking zones.

3.4 Policy conclusions

3.4.1 Consideration of the planning policy framework for the application leads to the following conclusions:

- The **development plan** (Policy IE 6 of the adopted **Neath Port Talbot Unitary Development Plan**) supports proposals for the creation of renewable energy provided their impacts are acceptable and they include proposals to reinstate the land. The ES demonstrates that impacts are acceptable and the application includes a commitment to land reinstatement, which would be controlled through a planning condition or planning obligation. The development accords with the development plan.

- Limited weight may be placed on the **emerging development plan** as it is currently at examination. Notwithstanding this, all of the proposed turbines lie within the currently proposed refined SSA.

- Current **national planning policy** supports the development of onshore wind farms and the proposed turbines are located within one of the areas expressly designated for large scale (over 25 MW) wind farms. In the local TAN 8 refinement study, all five of the proposed turbines lie within two of the three highest ranking zones which formed the basis for refining the area required to meet the 2010 target.

- Recent **clarification of national planning policy** (Ministerial letter, July 2011) reaffirms the Welsh Government's commitment to renewable energy (including onshore wind energy) and states that the identified maximum capacity for SSA E (152 MW) should be achieved but should not be exceeded. Currently, operational and consented wind farms in SSA E are below this level.

- Little weight may be accorded to the Council's interim planning guidance as it is based on the TAN 8 Annex D study and precedes the Ministerial letter of July 2011.

4 Design

4.1 Design and layout criteria

4.1.1 Wind turbines convert the kinetic energy of wind into electrical energy. Air passing over the blades of a wind turbine causes them to rotate. This low speed rotational motion is stepped up via a gearbox and converted into electrical energy by a generator located inside the nacelle (hub) of the turbine. The voltage is converted to a high voltage by a unit transformer, located either within the nacelle or at the base of the turbine, for transmission across the wind farm to a sub-station which is then, usually, connected to the National Grid.

4.1.2 For larger onshore wind farms, site selection is effectively dictated by the national planning policy guidance referred to in the preceding section. **TAN 8: Planning for Renewable Energy** reported on the extensive assessment process adopted and factors taken into account in determining the SSAs. The relevant factors included environmental criteria as well as wind speed and other technical considerations. As noted above, the turbines lie within SSA E.

4.1.3 Once a site has been selected, the design of the wind farm is organised in order to maximise the use of the available land for wind power generation while minimising the environmental impact of the development. The optimal layout of a wind farm depends upon a range of technical, economic and environmental criteria, as follows:

- Ground conditions - ground conditions must be suitable for the installation of wind turbines, access tracks and cables (for example, the avoidance of areas of deep peat).

- Topography - the site topography is computer modelled to establish the wind flow on and around the site to provide guidance on the best operational locations for the turbines.
- Turbine interaction - to minimise the turbulence interaction between turbines, they should be separated by set distances both perpendicular to and in line with the prevailing wind direction. This design feature is a key factor in maximising the overall power generating capacity of a site. Spacing requirements may vary between turbine manufacturers and are subject to wind conditions.

- Proximity to occupied dwellings - wind turbines have to be located sufficiently far away from dwellings to protect the noise amenity of occupants.

- Environmental constraints - features and areas of environmental sensitivity are identified and their implications assessed.

- Landscape, visual design and other environmental criteria are taken into account and the layout may be modified accordingly.

- Existing land use - although the wind turbines and their associated infrastructure occupy only a very small proportion of the site, the existing land use is considered in the layout of tracks and turbines (for example, existing tracks may be used instead of creating new ones). The presence and management of forestry and woodland may also be important as these can reduce energy production from wind turbines.

- Proximity to obstructions - such as tall trees or buildings.

- Grid - available capacity of the electricity grid to take power from the wind farm.

- Access - proximity to a highway network suitable to allow the transportation

of construction plant, materials and equipment, especially the large wind turbine components.

4.2 The design of the wind farm

4.2.1 Particular attention has been paid to planning the site layout and the locations of the turbines, associated built elements and access, so as to avoid adverse ground conditions, minimise visual intrusion, landscape disturbance and environmental features, consistent with the technical requirements of the development.

4.2.2 The design of the scheme has evolved during the course of carrying out the environmental impact assessment: at the time of requesting the EIA scoping opinion (April 2013), the scheme comprised 13 turbines; at initial application stage, these were reduced to 10 in number; now only 5 turbines are purposed. The location of the development, adjacent to the existing Maesgwyn wind farm, and its design mean that the proposed development will not appear incongruous or out of place in its context.

Location:

- The layout of the proposed wind turbines is related to the main land-form features of the site and arranged to follow the south-north ridgeline in the west of the site, complementing the alignment of the existing turbines.

- Areas of relative ecology interest have been avoided.

- The complex topography of the site and the density of public rights of way limit the flexibility to site turbines. The aim is to avoid routes of public rights of way and, generally, they will be separated from turbines by the blade tip height (or topple distance) of the turbine. The exception is turbine H, which will be separated by at least the oversail distance of the rotor blade.

Silhouette and colour:

- Because of the location of the site at the end of a ridge, the turbines will sometimes be seen as skyline elements, especially those in the west of the proposed development, and sometimes against a landform or vegetation backdrop. Their colour is therefore an important consideration. The zone of theoretical visibility (ZTV) indicates that views will be available from the elevated land to the north, in particular from the Brecon Beacons National Park, from where the turbines will often be seen silhouetted against the southern sun. The most appropriate colour finish is likely to be a matt mid-grey.

Built elements:

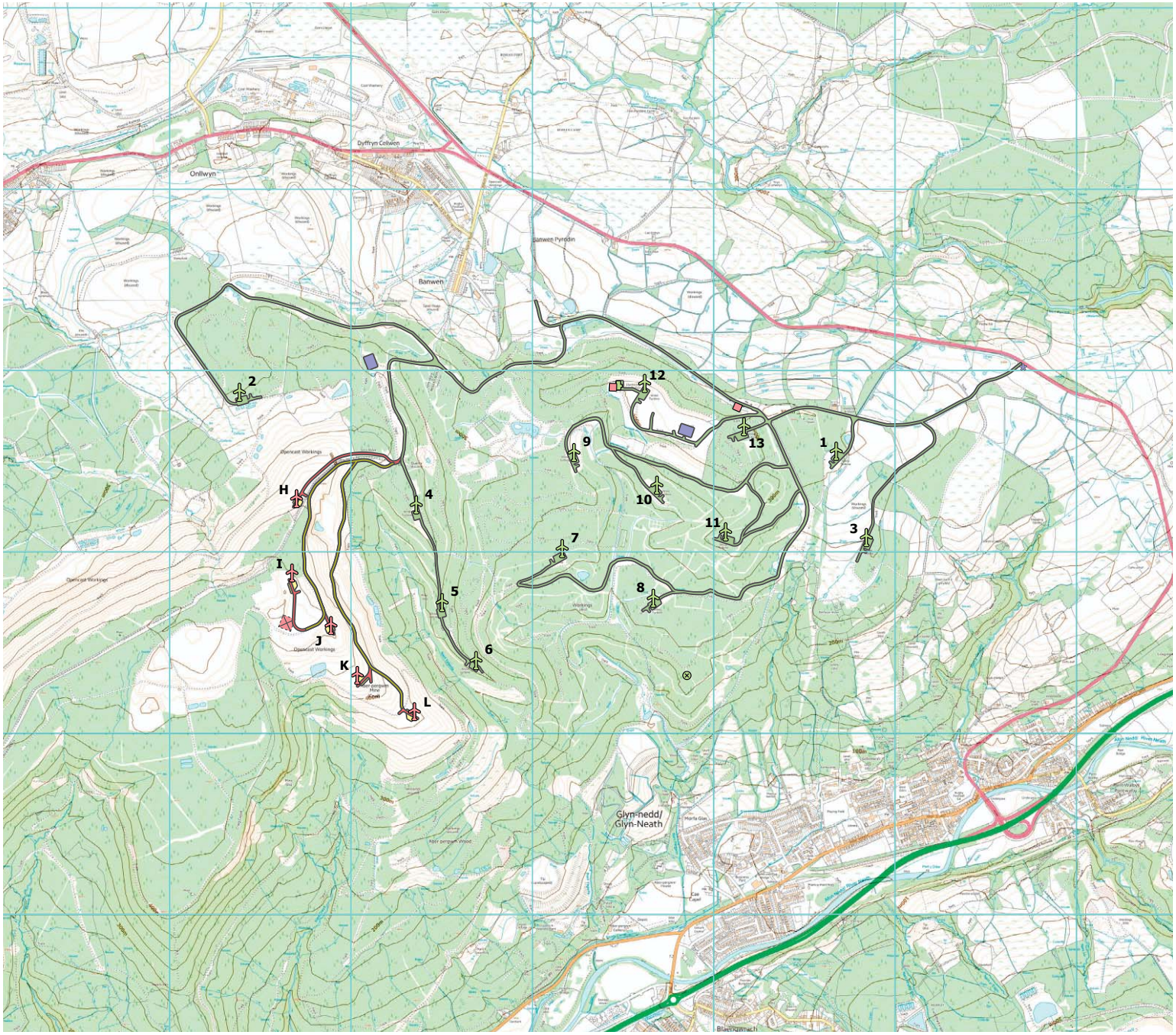
- Two sub-stations are required to service the development, within the eastern one of which a small control building will be located, containing mess facilities for personnel visiting the development and electrical control gear. The sub-station compounds must be fenced for reasons of public safety, and standard metal palisade fencing with a galvanised finish is proposed, as at the existing sub-station, which will weather to a neutral grey colour. The control building will be constructed in a vernacular style using local stone cladding on walls with a slate roof.

Landscape features:

- Where it is necessary to clear areas of existing plantation or other vegetation, the area will be reinstated and allowed to revegetate naturally. Soils excavated during construction will be retained and spread over turbine bases to maintain continuity of vegetation cover during the operational phase, or stored in low bunds for use in reinstatement on decommissioning.

Access tracks:

- Access into the site will use the same route as for the existing wind farm and the Walters Arena. Existing on-site tracks - which are managed and



Left Extract from drawing 3.01B **Turbine and track layout** (not to scale)

Key

Existing Maesgwyn wind farm

- Existing turbines
- Existing anemometer mast
- Existing sub-station
- Existing tracks

Proposed Maesgwyn extension

- Proposed turbines
- Proposed anemometer mast
- Proposed sub-station
- Proposed tracks
- Existing forest tracks to be upgraded
- Proposed contractor's compounds
- Proposed site entrance control

North

maintained - will be used wherever possible, with other existing tracks upgraded and lengths of new track constructed to the proposed turbine locations in the west.

- The method of construction for access tracks and hardstandings, with culverts to provide drainage where necessary, will allow drainage of surface water by infiltration so that the hydrology will not be disrupted.

Contractor's compounds:

- Two temporary contractor's compounds will be required. Their locations are: on the existing upper plateau, where the existing sub-station is located, which is enclosed by a ridge feature to the north and screened by conifer plantation on the other sides; and on a level area in the east, to the north of existing turbine 13, surrounded by conifer plantation.

4.3 The proposed access route

4.3.1 As noted above, the proposed access route from the M4 is via junction 43 and the A465(T) and A4109 to the entrance to the existing wind farm and Walters Arena. This route is tried and tested, having been used to build the existing wind farm.

4.4 Landscape and restoration strategy

4.4.1 The landscape and restoration strategy aims to rehabilitate the landscape features which are disturbed by the development or are near to the development area, including habitats. There are three aspects to the landscape restoration: restoration upon completion of construction; management during the operational period; and landscape restoration and further ongoing management after decommissioning.

4.4.2 **On completion of construction:** At the end of the construction phase, disturbed land beyond the operational areas and land occupied by the contractor's compounds and storage areas will cleared and restored. Concrete foundations for turbines will be soiled over with material recovered on site to marry with the surrounding levels. The edges of access tracks and hardstandings where appropriate will also be soiled over. Soiled areas will be allowed to regenerate from seed and plant propagules present in the soils.

4.4.3 **During the operational period:** Land within the applicant's control will be managed to improve the biodiversity and landscape interest.

4.4.4 **On decommissioning:** After removal of all the structures and associated buildings, etc, the surface parts of concrete foundations and hardstandings will be broken up in situ, covered with stone as necessary to make up levels, and spread with soils recovered on the site. Vegetation will be re-established by natural regeneration.

4.4.5 After each of the main phases of the development - construction, operation and decommissioning - there is opportunity for landscape restoration or enhancement through management. The design of the development incorporates a strategy that aims to maximise the potential for restoring the land used, by rehabilitating the landscape features which are either disturbed by the development or are near to the development area.

Monitoring

4.4.6 During construction and decommissioning, the operations on site will be monitored, to ensure the mitigation strategy is followed and mitigation measures for other environmental issues are integrated with the overall design of the scheme. During operation of the wind farm, regular inspection of regenerating vegetation will continue for two to three years.

5 Environmental sustainability

5.1 Introduction

5.1.1 **TAN 12: Design** promotes environmentally sustainable design solutions and requires that environmental sustainability shall be one of the issues to be addressed in a design and access statement.

5.2 Site appraisal

5.2.1 TAN 12 (at paragraph 4.7) notes that an appraisal of an area's natural resources is a prerequisite to providing environmentally sustainable design solutions, recognising both site constraints and site opportunities. It states that the appraisal should focus on: '... site assets and resources such as the development form, soils and geology, slope/topography, drainage, landscape, solar and wind energy as well as wildlife, biodiversity and natural habitats...'.

5.2.2 The ES and SEI include a detailed and comprehensive site appraisal. Chapter 2.0 of this design and access statement presents a summary appraisal of the site and its context, which is based on the more detailed appraisals carried out for EIA.

5.3 Objectives and response

5.3.1 In section 4 of TAN 12, the objectives of environmental sustainability are stated to be:

- achieving efficient use and protection of natural resources;
- enhancing biodiversity; and
- designing for change.

The applicant's response in respect of each of these objectives is set out below.

Efficient use and protection of natural resources

5.3.2 The Welsh Government's approach to sustainable energy is twofold: (a) to focus on energy efficiency and conservation; and (b) to strengthen renewable energy production (**Planning Policy Wales Edition 7**, section 12.8). As to the latter, Wales has an abundant onshore wind resource and onshore wind power is acknowledged to be the most viable commercial technology available. The Welsh Government has affirmed that '...onshore wind power offers the greatest potential for an increase in the generation of electricity from renewable energy in the short to medium term' (TAN 8, paragraph 22).

5.3.3 The proposed turbines lie within SSA E (Pontardawe), one of several strategic search areas identified in TAN 8. The SSAs were selected on the basis of a number of criteria, including:

- the available wind resource: all of the SSAs are characterised by a good wind resource (typically in excess of 7 m per second); and
- a general absence of nature conservation or historic landscape designations.

The selection of the SSAs was predicated on the efficient use and protection of natural resources and this is reflected in the selection of the application site.

5.3.4 The proposal is for an extension of an existing wind farm. The site layout makes use of the existing wind farm access and other infrastructure, which is both efficient and sustainable, reducing potential vehicle movements and the use of natural resources.

Enhancing biodiversity

5.3.5 Ecology constraints have been taken into account in the wind farm layout design and measures have been incorporated to avoid or minimise the predicted impacts in any ecological receptors. As a result, and as reported in the submitted ES and SEI, there are not expected to be any significant residual ecological impacts as a result of the scheme.

5.3.6 The landscape strategy for the development is summarised in Chapter 4.0 above. It includes reusing the soils saved from the construction areas, with vegetation being allowed to regenerate from seed and plant propagules present in the soils.

Designing for change

5.3.7 The development will be designed and procured to current standards for wind farms and will have a projected life of 25 years. At the end of that period, the turbine components will be removed from the site and recycled, with the land restored.

5.3.8 Subject to the grant of planning permission and depending upon circumstances at the time of decommissioning, it is possible that the site could be “repowered”, thus making effective reuse of the site infrastructure.

6 Access and movement

6.1 Introduction

6.1.1 During the period when it is operational (up to 25 years), a wind farm generates very little traffic, vehicular movements being confined to occasional visits by service vehicles. Considerations of access and movement usually focus, therefore, on the relatively short period during which the wind farm is being constructed and, to a lesser extent, when it is being decommissioned. Chapter 9 of the submitted SEI assesses the traffic and transport impacts related to the construction phase of the proposed wind farm development.

6.1.2 As required by article 7 of the Order, in preparing this statement, consideration has been given to the statutory development plan, relevant policies of which are summarised in Chapter 3.0 of this report. Development plan and other access policies generally seek to promote sustainable accessible - for example, through the use of modes of transport other than the private car - and to ensure that developments are accessible by all users. In the case of a wind farm, it is not generally the intention to promote public access and, as such, many of the policies are not particularly relevant.

6.2 Access and movement during construction

6.2.1 The wind farm development will be served by the existing private wind farm access from the A4109. In width, geometry and alignment this is already constructed to the required standard and no additional works are proposed or considered necessary. A vehicle control point will be established at the site entrance for the duration of the construction period, which is estimated as 13 months.

6.2.2 Within the site, the existing access track will be used and extended to serve the new turbines and other infrastructure.

6.2.3 Off-site, the existing public highway network will be used to deliver plant, equipment and construction materials to the site. For the turbine components, which will be delivered as AILs, the selected route is from M4 junction 43 via the A465(T) and A4109. This is the same route that was used to deliver the turbine components for the existing wind farm.

6.3 Access and movement during operation

6.3.1 Once the wind farm is operational, it is envisaged that the amount of traffic associated with the scheme will be minimal. Occasional visits will be made to the site for routine maintenance checks. The vehicle used for these visits is likely to be a 4x4 or similar and there may be an occasional need for a HGV to access the site for maintenance and repairs.

6.4 Access and movement during decommissioning

6.4.1 The wind farm is designed to have an operational life of 25 years. At the end of this period the turbines will be dismantled and removed from site. The rotor blades, being the largest components of plant, will be cut down in size on site, thereby removing the necessity for the re-use of AILs. Turbine foundations, etc will be left in situ and the land restored and, hence, traffic generation during decommissioning would be significantly less than during construction.

6.4.2 Decommissioning does not raise any access or movement issues additional to those considered at the construction phase.

6.5 Public rights of way

6.5.1 The site is crossed by a number of public rights of way. Potential effects on the public rights of way within the site can be mitigated by management during the periods of construction and decommissioning. The layout of access tracks is such that some of them will cross the rights of way. It is not intended to apply to have any of these rights of way stopped-up or diverted, but precautions will be required during construction and decommissioning: see Chapter 7.0 below.

7 Community safety

7.1 Public realm

7.1.1 The proposed development is sited on privately owned land, much of which is managed as part of the Walters Arena. The proposal itself does not incorporate any public spaces or public realm. Public access to the land is available on the existing public rights of way in the area: see section 7.3 below.

7.2 Safety during construction

7.2.1 Construction activities are controlled under legislation other than the **Town and Country Planning Acts**, which includes the **Health and Safety at Work, etc Act 1974** and subsequent statutory regulations, including **The Construction (Design and Management) Regulations 2007**. These are supplemented by best practice guidelines, such as the **Wind Turbine Safety Rules** (WTSR) endorsed by Renewable UK. These rules - which have been developed by owners and manufacturers - clearly specify actions and procedures which should be followed in order that persons working on wind turbines are safeguarded from the inherent dangers that exist from the installed electrical and mechanical equipment in turbines.

7.2.2 During the construction phase of the development, the relevant statutory requirements will be strictly adhered to. It is anticipated that observance of a construction method statement will be required by condition imposed on the grant of planning permission. In particular, during construction, all potentially hazardous areas for public safety, such as excavations and electrical installation works, will be fenced off in line with established methods for working. All unattended machinery will be stored in a secure site compound or immobilized to prevent unauthorised use. Particular considerations may apply to the use of public rights of way during construction and this is referred to below.

7.3 Public access

7.3.1 The land on which the wind farm extension is proposed is crossed by public rights of way. It is not proposed to stop-up or permanently divert any of the rights of way and, therefore, public access close to the turbines must be assumed. The safety requirements of public access must necessarily be given prominence during construction, operation and decommissioning.

7.3.2 During construction, safe public access within the site can be ensured by the contractor's management system, with appropriate arrangements for fencing, temporary diversions and signage.

7.3.3 During the operational phase of the development, no special precautions are considered necessary to preclude public access in the vicinity of the turbines.

7.3.4 During decommissioning, similar considerations would apply as during the construction stage.

7.4 Air safety

7.4.1 Consideration has been given to aviation interests and relevant organisations have been consulted, including the Ministry of Defence (Safeguarding) and National Air Traffic Services (NATS).

7.4.2 NATS is responsible for the safe and expeditious movement of aircraft operating in controlled airspace in the UK. The applicant commissioned NATS to undertake a technical and operational assessment of the proposed wind farm, which confirmed that the proposed development would have no impact on navigational aids, radar, air-ground communication systems and any airport for which NATS is responsible, including Cardiff Airport.

8 Neath Port Talbot County Borough Council's checklist

8.1.1 The table below cross-refers the requirements of the Council's design and access checklist with the contents of the submitted **Design and access statement**:

NPT design and access checklist	Reference
Vision	**Chapter 1.0**
Background to project	Section 1.1
Design brief	No design brief was produced
Why doing this project?	Paragraph 1.1.2
Introduction and site location	**Chapters 1.0, 2.0 and 3.0**
Application description (type etc.)	Paragraph 1.4.1
Identify site (size, location, profile etc.)	Paragraph 1.4.2 Chapter 2.0
Context of site	**Physical** Section 2.4 **Social** Section 2.5 **Economic** Section 2.5
Planning context	**Development plan** Section 3.2 **National planning policy** Section 3.3 **Interim planning guidance** Paragraph 3.4.1
Site analysis	**Chapter 2.0**
Access points	Paragraph 6.2.1
Boundaries	Chapter 2.0
Site features (e.g. trees, watercourse)	Section 2.4
Topography	Paragraph 2.4.1
Constraints/opportunities	Sections 2.6 and 4.1
Context assessment	**Chapter 2.0**
Local context and facilities	There are no local facilities and none is required to serve the development.
Describe site in relation to locality such as shops, bus stops etc. (distances, number)	Not applicable
Crime statistics	Not applicable

Involvement/consultation	**Chapter 1.0**
Pre-application advice	Paragraph 1.5.1
Neighbour consultation	Paragraph 1.5.2
Local groups (e.g. access or EQ groups)	Paragraph 1.5.2
Design	**Chapter 4.0**
Show good design and how it has evolved	Chapter 4.0
Needs to ensure good access for all	Not applicable
Sustain/enhance local character	Chapter 4.0
Promote legible development	Not applicable
Successful relationship between public & private	Part of the site is in the freehold ownership of the Welsh Ministers.
Promote quality, choice & variety	Not applicable
Attractive & safe public spaces	Not applicable
Secured by design	Not applicable
Efficient use of resources	Paragraphs 5.3.2 to 5.4.4
Enhance biodiversity	Paragraphs 5.3.5 to 5.3.6
Promote sustainable means of travel	Not applicable
Community safety	**Chapter 7.0**
Secured by design	Not applicable
Overlooking public spaces	Not applicable
Sense of ownership and responsibility	Not applicable
Character	**Chapters 2.0 and 4.0**
Indicative layouts	None produced
3D designs	Chapter 4 of the SEI contains wirelines and photomontages.
Street-scenes	Not applicable
How come up with design given	The turbine and other equipment are proprietary products.
Environmental sustainability	**Chapter 5.0**
Efficient use of natural resources	Paragraphs 5.3.2 to 5.3.4

Energy & water efficient features (e.g. solar panels, water butts)	Not applicable
Sustainable design (e.g. orientation)	Not applicable
Adaptability for future	Paragraphs 5.3.7 to 5.3.8
Movement & access	**Chapter 6.0**
Promoting sustainable travel	Not applicable
Ease of access for all	Not applicable
How development connects to different transport modes	Not applicable
Parking & servicing arrangements	Sections 6.2 to 6.4