



**Foel Fach Wind Farm Limited.**

# **Foel Fach Energy Wind Farm - Environmental Statement Volume III**

Appendix 4.6: Grid Connection Appraisal

Project Reference: 664094

DECEMBER 2025



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# RSK GENERAL NOTES

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**Client:** Foel Fach Wind Farm Limited.

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## CONTENTS

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1	INTRODUCTION .....	1
2	GRID CONNECTION ASSESSMENT.....	2
3	APPROACH TO ROUTING THE GRID CONNECTION .....	6
4	SUMMARY .....	10
	ANNEX A - THE HOLFORD RULES AND CLARIFICATION NOTES .....	11

### TABLES

Table 2.1 Main Environmental Constraints within the Indicative Grid Connection Corridor .....	3
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### FIGURES

Figure 1 Indicative Grid Connection Route Appraisal Study Area	
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# 1 INTRODUCTION

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## 1.1 Background

- 1.1.1 Foel Fach Wind Farm Ltd. (hereafter referred to as 'the Applicant'), a project company co-owned by development partners Coriolis Energy and ESB Asset Developments, is seeking to obtain full planning permission for the construction, operation and decommissioning of the Foel Fach Wind Farm (hereafter referred to as the 'Proposed Development'), located approximately 3 km north of the town of Bala, Gwynedd.
- 1.1.2 The Proposed Development comprises the construction and operation of up to ten wind turbines and associated infrastructure.
- 1.1.3 At the time of writing (December 2025), it is anticipated that grid connection will be made to a new transmission substation provisionally referred to as the 'North Wales Connection Node A' with a broad area in the vicinity of Gwyddelwern (between approximately 9 to 15 km north-east of the Proposed Development). It is understood that this new substation location is currently under consideration by National Grid Electricity Transmission (NGET), with further details understood to be released in 2026.
- 1.1.4 Several ongoing processes and projects related to grid planning and upgrades, such as Connections Reform, Strategic Spatial Energy Planning (SSEP), Regional Energy Strategic Planning (RESP), and Centralised Strategic Network Planning (CSNP), may influence the final location, capacity, and/or optimal routing of the grid connection.
- 1.1.5 It is expected that greater clarity on the grid connection will become available at a later date. At that time, one or more separate consenting applications will be submitted by the relevant parties as required by planning law, and would be subject to detailed environmental assessment.

## 1.2 Scope of Assessment

- 1.2.1 The Applicant previously sought a Scoping Direction on the Foel Fach Wind Farm proposals from Planning and Environment Decisions Wales (PEDW). The Scoping Direction (provided in Environmental Statement (ES) Volume III, Appendix 1.2: EIA Scoping Direction and Addendum) included a request to address the grid connection, as set out below.

*"The SR [Scoping Report] states the grid connection to the proposed development would be subject to a separate consent application. PEDW advises that the ES should address the grid connection in a proportionate manner based on the level of certainty as to the likely connection route at the time of the DNS application being made".*

- 1.2.2 This document presents a proportionate environmental assessment of the likely grid connection route based on what can reasonably be predicted at the time of writing (December 2025).



## 2 GRID CONNECTION ASSESSMENT

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### 2.1 Introduction

2.1.1 As highlighted above, the grid connection required to export electricity from the Foel Fach Wind Farm does not form part of the development of national significance (DNS) application and will instead be progressed by others under a separate consenting process. This reflects standard industry practice, as the design, routing and delivery of grid infrastructure is usually undertaken by the relevant electricity network operator once sufficient generating capacity has been secured.

2.1.2 At the time of preparing this ES, the following aspects of the grid connection remain undetermined:

- the point of connection (PoC) to the distribution or transmission network;
- the voltage level;
- the balance of overhead line (OHL) and underground cable (UGC) sections;
- the likely corridor or route alignment; and
- the required substation configuration.

2.1.3 Because this information is unavailable, the design and environmental assessment of the grid connection cannot be progressed in detail at this time. However, given that the Proposed Development cannot operate without a grid connection, based on what can reasonably be predicted, this section provides a high-level appraisal of:

- the planning and design principles likely to inform the grid connection;
- how environmental considerations will be embedded in its development; and
- the feasibility of achieving a compliant and environmentally acceptable connection.

2.1.4 The Holford Rules, which seek to minimise landscape, visual and environmental impacts, provide the basis for the high-level assessment set out in this section. These rules, and their supplementary notes, provide a design framework for OHL routing in the UK. Further details of the Holford Rules are available in **Annex A**.

### 2.2 Indicative Grid Connection Corridor

2.2.1 An indicative corridor for the grid connection has been identified as shown in **Figure 1**.

2.2.2 A substation search area has been identified by National Grid Electricity Transmission (NGET). It is not fixed but shows the approximate area under consideration for the PoC.

2.2.3 From the Foel Fach Wind Farm Site Boundary, an indicative corridor has been identified towards the National Grid substation search area. This corridor is approximately 32 km long and 26 km wide. It is likely that any routing design refinement will be located within this wider and indicative area.



## 2.3 High-level appraisal of environmental constraints

2.3.1 **Table 2.1** includes the findings of a high-level review of environmental constraints undertaken at this stage. This appraisal sets out the main ecological, landscape, heritage and land-use sensitivities within the Indicative Grid Connection Corridor. These baseline constraints will guide future routing and design once the PoC and preliminary alignment are confirmed.

**Table 2.1 Main Environmental Constraints within the Indicative Grid Connection Corridor**

Environmental Factors	Constraints	Designation Information
Cultural Heritage	Listed Buildings	A total of 143 heritage assets, including: <ul style="list-style-type: none"><li>Grade I: 3</li><li>Grade II*: 20</li><li>Grade II: 120</li></ul>
	Schedule Monuments	A total of 21 heritage assets
	Conservation Areas	A total of four designations, including: <ul style="list-style-type: none"><li>Llangwm</li><li>Betws Gwerfil Goch</li><li>Corwen</li><li>Cynwyd</li></ul>
Biodiversity	Important Bird and Biodiversity Area	Berwyn
	Site of Special Scientific Interest	A total of seven designations, including: <ul style="list-style-type: none"><li>Afon Dyfrdwy (River Dee)</li><li>Berwyn</li><li>Caerau Uchaf</li><li>Coedydd Dyffryn Alwen</li><li>Cors y Sarnau</li><li>Y Glyn-difffwys</li><li>Chwareli Hafod y Calch a Phlas Uchaf</li></ul>
	Special Areas of Conservation	A total of two designations: <ul style="list-style-type: none"><li>Berwyn a Mynyddoedd De Clwyd / Berwyn and South Clwyd Mountains</li><li>River Dee and Bala Lake / Afon Dyfrdwy a Llyn Tegid (Wales)</li></ul>



	Special Protection Areas	Berwyn
Land, water and soils	Phosphorus Sensitive SAC Freshwater Catchments	River Dee
Landscape and Visual	National Landscape	Bryniau Clwyd A Dyffryn Dyfrdwy/ Clwydian Range and Dee Valley
Land Use	Registered Common Land	13 parcels of common land

## 2.4 Grid Connection Technology Components

- 2.4.1 A future grid connection for the Foel Fach Wind Farm may incorporate a combination of OHL, UGC and associated substation infrastructure. The specific configuration will be determined once the PoC is confirmed, and will depend on a balance of environmental sensitivity, technical feasibility, operational requirements, maintenance considerations and construction practicalities.
- 2.4.2 Each technology has advantages and limitations, and it is likely that a combination of approaches will be required to deliver a reliable and environmentally responsible connection.

### Overhead Lines

- 2.4.3 OHLs transmit electricity using conductors suspended above ground on either wood poles or steel lattice pylons. These conductors are usually made from aluminium or copper, often with a steel core to provide additional tensile strength and limit sag.
- 2.4.4 OHLs are generally regarded as the most cost-effective and operationally dependable method of electricity transmission, as they are straightforward to maintain, easy to inspect, and relatively quick to repair in the event of a fault.
- 2.4.5 Their overall visual impact depends on the height and spacing of the supporting structures as well as the surrounding landform and vegetation, which can significantly influence how visible the line appears in the wider landscape. Many OHLs also incorporate an earth wire positioned above the conductors to provide lightning protection and enhance operational resilience.

### Steel Lattice Pylons

- 2.4.6 Steel lattice pylons are used where greater conductor height, longer spans or additional circuit capacity is required. For a typical 132 kV OHL, pylons generally range between 20 and 30 m in height and are spaced approximately 200 m to 250 m apart, although these distances may vary depending on terrain and engineering requirements.
- 2.4.7 The structures are fabricated from galvanised steel sections bolted together, providing a durable and long-lasting support system with an operational life of around



80 years. Lattice pylons offer greater strength and flexibility than wood poles, making them suitable for locations where challenging ground conditions, larger clearances, or double-circuit arrangements are required.

### **Wood Poles**

- 2.4.8 Wood poles are usually employed for single-circuit 132 kV connections and offer a lighter, less visually prominent alternative to steel pylons. They usually range from 14 to 16 m in height and achieve span lengths of between 80 and 100 m, with longer spans of up to 120 m possible in favorable terrain.
- 2.4.9 Constructed from pressure-impregnated softwood and fitted with galvanised steel cross-arms and insulator assemblies, wood poles weather naturally over time, often blending more readily into rural landscapes. Their operational life is generally around 40 years. Wood pole solutions are often preferred where landscape sensitivity is high or where the technical requirements do not necessitate the use of larger pylon structures.

### **Underground Cables**

- 2.4.10 UGC provides an alternative means of transmitting electricity where OHL routing is unsuitable due to environmental, landscape, heritage or technical constraints. UGC systems involve burying insulated conductors within a trench, usually around 1.3 m deep, with a trench width of between 1.5 m and 2 m, although this may increase where ground conditions or construction access require additional working room.
- 2.4.11 The cables are installed with specially prepared thermal backfill materials to ensure they operate efficiently and safely. Where UGC transitions to an OHL, above-ground infrastructure such as sealing-end compounds or terminal poles is needed to facilitate the connection. While UGC avoids the visual impact associated with OHL structures, it can involve a greater degree of construction disturbance, longer repair times in the event of faults and generally higher installation and maintenance costs.

### **Substations**

- 2.4.12 Substations are an essential component of any grid connection, providing the infrastructure required to transform voltage levels, protect circuits, manage system flows and control the movement of electricity onto the wider network.
- 2.4.13 A new substation will be required to connect the Foel Fach Wind Farm to the transmission or distribution system. Substation facilities usually include transformers, switchgear, protection and control equipment, together with dedicated control building housing communications and Supervisory Control and Data Acquisition (SCADA) systems. The compound will also contain internal access tracks, hardstanding areas and a secure perimeter fence to ensure safe operation and restrict unauthorised access.
- 2.4.14 The size and layout of the substation will depend on the voltage of the connection, the number of incoming and outgoing circuits and the specific requirements of the network operator.



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## 3 APPROACH TO ROUTING THE GRID CONNECTION

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### 3.1 Routing as a stepwise approach

3.1.1 Because no PoC is defined yet, the design of the grid connection will need to follow a structured and iterative process. This approach would allow the applicant at the time to increasingly reduce uncertainty, gather technical and environmental information needed to make informed decisions, and refine the design in a logical and transparent manner. As each stage is completed, the range of options becomes more focused, while still ensuring that reasonable alternatives are considered. In this way, the grid connection can move from a broad strategic concept to a feasible final alignment.

#### **Stage 1: Confirmation of PoC**

3.1.2 The relevant network operator will, following application by the wind farm developer, identify a technically viable and robust PoC based on network capacity, reinforcement needs, and system stability. This often includes power system studies, capacity modelling, and future network scenario analysis.

#### **Stage 2: Identification of Feasible Corridors**

3.1.3 Once the PoC is known, wide search corridors will be mapped within the Indicative Grid Connection Corridor (**Figure 1**), which is the area between the wind farm substation and the PoC. These corridors are usually several kilometres wide and take into account topography, existing infrastructure, designated sites, forestry blocks, settlements and hydrology.

#### **Stage 3: Constraint Mapping and Holford-Rules-Led Refinement**

3.1.4 Environmental constraints such as ecological designations, heritage assets, peat soil, sensitive receptors, and sensitive landscapes will be mapped using GIS. The Holford Rules will guide the avoidance of areas where OHL routing could result in significant effects.

#### **Stage 4: Identification of Suitable Technology**

3.1.5 The balance between OHL, UGC and hybrid solutions will be assessed. Factors include:

- environmental sensitivity
- constructability
- effects on agriculture and forestry
- cost and deliverability, and
- long-term operability.



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## **Stage 5: Environmental Impact Assessment**

- 3.1.6 The final route will undergo a full Environmental Impact Assessment (EIA) to accompany the separate grid application, supported by baseline surveys, stakeholder engagement and iterative design.
- 3.1.7 This structured approach ensures that the final grid connection is deliverable, environmentally responsible, and follows best practice.

## **3.2 Design Parameters: Application of the Holford Rules**

- 3.2.1 The Holford Rules will provide a guiding framework for routing OHL. The most relevant design principles for the Foel Fach area include:

### **Rule 1 – Avoid the Highest-Valued Landscapes**

- 3.2.2 This rule is aimed at avoiding the highest-valued landscapes wherever possible. Alternative routes should be explored to steer clear of these areas entirely.

### **Rule 2 – Avoid Smaller High-Amenity or Scientific Areas**

- 3.2.3 Where feasible, deviate around smaller high-amenity or scientific areas, including SSSIs and the settings of heritage assets, without excessive angle towers.

### **Rule 3 – Choose the Most Direct Line**

- 3.2.4 Select the most direct route with minimal changes in direction, placing unavoidable angle and terminal towers in discreet locations

### **Rule 4 – Use Tree and Hill Backdrops**

- 3.2.5 Align lines against tree or hill backdrops and cross ridges at dips or between trees to reduce visibility.

### **Rule 5 – Prefer Wooded, Moderately Open Valleys**

- 3.2.6 Prefer valleys with woodland to reduce tower prominence and break views, while protecting existing vegetation.

### **Rule 6 – Avoid ‘Wirescape’ and Visual Clutter**

- 3.2.7 Keep new lines separate from existing wires and structures, ensuring coherent appearance and adequate spacing between routes.

### **Rule 7 – Approach Urban Areas Sensitively**

- 3.2.8 Approach urban areas through industrial zones where possible, consider undergrounding near residential or recreational areas, and locate substations to minimise visual and development impacts.
- 3.2.9 The complete text of the Holford Rules, along with clarification notes for each rule, can be found in **Annex A**.



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### 3.3 Future Assessment Method

3.3.1 It is expected that full EIA will be undertaken by others when the final grid connection route and technology options are known. This assessment will draw on a combination of GIS-based constraints mapping and detailed field surveys to establish a robust understanding of the environmental baseline across the chosen corridor. The GIS mapping will collate key environmental and technical information, including ecological designations, hydrological features, landscape character, cultural heritage assets, noise-sensitive receptors, agricultural land classifications, soil types and forestry cover. Field surveys will then refine and validate this information, ensuring that any on-site sensitivities are fully understood.

3.3.2 The EIA process will involve an iterative option appraisal, allowing the route and design to evolve in response to emerging constraints. This staged refinement will help reduce potential impacts before the final alignment is selected. As part of this process, OHL, UGC and hybrid solutions will be compared to determine the most appropriate configuration, taking account of technical feasibility, environmental sensitivity and overall deliverability.

3.3.3 The EIA will likely consider a wide range of environmental topics, including:

- landscape and visual amenity,
- ornithology and terrestrial ecology,
- cultural heritage,
- water, ground conditions and peat soils,
- noise, EMF and residential amenity,
- forestry and woodland,
- agriculture and soils,
- traffic, access and transport,
- construction and operational effects.

3.3.4 Mitigation will need to be developed in accordance with the recognised mitigation hierarchy. First, seeking to avoid impacts wherever possible, then reducing them where avoidance is not achievable, and finally applying offsetting or compensatory measures where necessary. This approach ensures that the final grid connection design is environmentally responsible and that any significant effects are appropriately minimised.

### 3.4 Considerations of Underground Cables

3.4.1 Undergrounding of grid connections is typically reserved for locations where an OHL would cause very significant environmental, technical or amenity impacts and no suitable OHL route can be identified.

3.4.2 Undergrounding may be considered where:

- designated landscapes (National Parks, AONBs, NSAs) offer no suitable OHL alternative;
- regional or local landscapes lack capacity to accommodate an OHL;



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- OHLs would cause very significant effects on residents, heritage assets, or sensitive viewpoints;
- important public viewpoints or recreation areas would experience unacceptable impact;
- conservation areas or listed building settings would be significantly harmed;
- environmental assessments conclude that OHL effects cannot be satisfactorily mitigated;
- technical constraints make OHL construction impracticable.

3.4.3 A transparent decision-making process would balance a range of factors, including stakeholder feedback, the need to protect environmental and heritage assets, cost and deliverability considerations, and the requirements for operational reliability and long-term maintenance. It would also take into account the planning weight given to visual and environmental benefits. By considering these elements together, the process ensures that undergrounding is adopted only when properly justified, while maintaining the integrity and cost-effectiveness of the network.



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## 4 SUMMARY

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- 4.1.1 This appraisal provides an initial, high-level overview of routing considerations and environmental considerations for the future grid connection to the Foel Fach Wind Farm base on what can reasonably be predicted. Because the Point of Connection has not yet been confirmed, key parameters such as voltage, alignment, technology choice and substation configuration remain unknown.
- 4.1.2 Despite this uncertainty, the review indicates that the Indicative Grid Connection Corridor contains several sensitive receptors including designated ecological sites, heritage assets, National Landscape areas and freshwater catchments. A grid solution is considered achievable in principle, with potential impacts capable of being reduced through careful corridor refinement, application of the Holford Rules, appropriate use of undergrounding and established mitigation practices.



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## ANNEX A - THE HOLFORD RULES AND CLARIFICATION NOTES

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### Rule 1

4.1.3 **Avoid altogether, if possible, the major areas of highest amenity, by so planning the general route of the line in the first place, even if the total mileage is somewhat increased in consequence.**

*Note on Rule 1*

4.1.4 Investigate the possibility of alternative routes, avoiding altogether, if possible major areas of highest amenity value. The consideration of alternative routes must be an integral feature of environmental statements.

4.1.5 Investigate the possibility of alternative routes, avoiding altogether, if possible major areas of highest amenity value. The consideration of alternative routes must be an integral feature of environmental statements.

4.1.6 Areas of highest amenity value are:

- Areas of Outstanding Natural Beauty
- National Parks
- Heritage Coasts
- World Heritage Sites

### Rule 2

4.1.7 **Avoid smaller areas of high amenity value, or scientific interest by deviation; provided that this can be done without using too many angle towers, i.e. the more massive structures which are used when lines change direction.**

*Note on Rule 2*

4.1.8 Some areas (e.g. Site of Special Scientific Interest) may require special consideration for potential effects on ecology (e.g. to their flora and fauna). Where possible choose routes which minimise the effects on the setting of areas of architectural, historic and archaeological interest including Conservation Areas, Listed Buildings, Listed Parks and Gardens and Ancient Monuments.

### Rule 3

4.1.9 **Other things being equal, choose the most direct line, with no sharp changes of direction and thus with few angle towers.**

*Note on Rule 3*

4.1.10 Where possible choose inconspicuous locations for angle towers, terminal towers and sealing end compounds.

### Rule 4

4.1.11 **Choose tree and hill backgrounds in preference to sky backgrounds, wherever possible; and when the line has to cross a ridge, secure this opaque**



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background as long as possible and cross obliquely when a dip in the ridge provides an opportunity. Where it does not, cross directly, preferably between belts of trees.

### Rule 5

4.1.12 **Prefer moderately open valleys with woods where the apparent height of towers will be reduced, and views of the line will be broken by trees.**

*Notes on Rules 4 and 5*

4.1.13 Utilise background and foreground features to reduce the apparent height and domination of towers from main viewpoints.

4.1.14 Minimise the exposure of numbers of towers on prominent ridges and skylines.

4.1.15 Where possible avoiding cutting extensive swathes through woodland blocks and consider opportunities for skirting edges of copses and woods.

4.1.16 Protecting existing vegetation, including woodland and hedgerows, and safeguard visual and ecological links with the surrounding landscape.

### Rule 6

4.1.17 **In country which is flat and sparsely planted, keep the high voltage lines as far as possible independent of smaller lines, converging routes, distribution poles and other masts, wires and cables, so as to avoid a concatenation or 'wirescape'.**

*Note on Rule 6*

4.1.18 In all locations minimise confusing appearance.

4.1.19 Arrange wherever practicable that parallel or closely related routes are planned with tower types, spans and conductors forming a coherent appearance. Where routes need to diverge allow, where practicable, sufficient separation to limit the impacts on properties and features between lines.

### Rule 7

4.1.20 **Approach urban areas through industrial zones, where they exist; and when pleasant residential and recreational land intervenes between the approach line and the substation, go carefully into the comparative costs of undergrounding, for lines other than those of the highest voltage.**

*Note on Rule 7*

4.1.21 When a line needs to pass through a development area, route it so as to minimise as far as possible the effect on development.

4.1.22 Route Alignments should be chosen after consideration of effects on the amenity of existing development and on proposals for new development.

4.1.23 When siting substations take account of the effects of the terminal towers and line connections that will need to be made and take advantage of screening features such as ground form and vegetation.



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## Supplementary Notes

### ***Residential Areas***

4.1.24 Avoid routing close to residential areas as far as possible on grounds of general amenity.

### ***Designations of Regional and Local Importance***

4.1.25 Where possible choose routes which minimise the effect on Special Landscape Areas, areas of Great Landscape Value and other similar designations of County, District or Local value.

### ***Alternative Tower Designs***

4.1.26 In addition to adopting appropriate routing, evaluate where appropriate the use of alternative tower designs now available where these would be advantageous visually, and where the extra cost can be justified.

### ***Further notes on clarification to the Holford Rules***

#### ***Line Routeing and People***

4.1.27 The Holford Rules focused on landscape amenity issues for the most part. However, line routing practice has given greater importance to people, residential areas etc.

4.1.28 The following notes are intended to reflect this.

- Avoid routing close to residential areas as far as possible on grounds of general amenity.
- In rural areas avoid as far as possible dominating isolated house, farms or other small-scale settlements.
- Minimise the visual effect perceived by users of roads, and public rights of way, paying particular attention to the effects of recreational, tourist and other well used routes.

### ***Supplementary Notes on the Siting of Substations***

4.1.29 Respect areas of high amenity value (see Rule 1) and take advantage of the containment of natural features such as woodland, fitting in with the landscape character of the area.

4.1.30 Take advantage of ground form with the appropriate use of site layout and levels to avoid intrusion into surrounding areas.

4.1.31 Use space effectively to limit the area required for development, minimizing the impacts on existing land use and rights of way.

4.1.32 Alternative designs of substation may also be considered, e.g. 'enclosed', rather than 'open', where additional cost can be justified.

4.1.33 Consider the relationship of tower and substation structures with background and foreground features, to reduce the prominence of structures from main viewpoints.



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4.1.34 When siting substations take account of the impacts of line connections that will need to be made.

**Interpretation of the Holford Rules 1 and 2 and notes to Rule 2 regarding the setting of a scheduled ancient monument or a listed building**

***Introduction***

4.1.35 Rules 1 refers to avoiding major areas of highest amenity value, Rule 2 refers to avoiding smaller areas of high amenity value. These rules therefore require identification of areas of amenity value in terms of highest and high, implying a hierarchy, and the extent of their size(s) or area(s) in terms of major and smaller areas.

4.1.36 The National Grid Notes to these Rules identify at Rule 1(b) areas of highest amenity value and at Rule 2(a) and (b) of high amenity value that existed in England circa 1992.

***Designations***

4.1.37 Since 1949 a framework of statutory measures has been developed to safeguard areas of high landscape value and nature conservation interest. In addition to national designations, European Community Directives on nature conservation, most notably through Special Areas of Conservation under the Habitats and Species Directive (92/43/EC) and Special Protection Areas under the Conservation of Wild Birds Directive (79/409/EEC) have been implemented. Governments have also designated a number of Ramsar sites under the Ramsar Convention on wetlands of International Importance (CM6464).

***Amenity***

4.1.38 The term 'Amenity' is not defined in The Holford Rules but has generally been interpreted as designated areas of scenic, landscape, nature conservation, scientific, architectural or historical interest.

4.1.39 This interpretation is supported by paragraph 3 of Schedule 9 to the Electricity Act 1989 (The Act). Paragraph 3 (1)(a) requires that in formulating any relevant proposals the licence holder must have regard to the desirability of preserving natural beauty, or conserving flora, fauna and geological or physiological features of special interest and of protecting sites, buildings, including structures and objects of architectural, historic or archaeological interest. Paragraph 3 (1)(b) requires the license holder to do what he reasonably can do to mitigate any effect which the proposals would have on the natural beauty of the countryside or on any flora, fauna, features, sites, buildings or objects.

***Hierarchy of Amenity Value***

4.1.40 Rules 1 and 2 imply a hierarchy of amenity value from highest to high. Designations are considered to give an indication of the level of importance of the interest to be safeguarded.



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### ***Major and Smaller Areas***

4.1.41 Rules 1 and 2 imply consideration of the spatial extent of the area of amenity in the application of Rules 1 and 2.

### ***Conclusion***

4.1.42 Given that both the spatial extent in terms of major and smaller and the amenity value in terms of highest and high that must be considered in applying Rules 1 and 2, that no value in these terms is provided, then these must be established on a project-by project basis. Designations can be useful in giving an indication of the level of importance and thus value of the interest safeguarded. The note to The Holford Rules can thus only give examples of the designations which may be considered to be of the highest amenity value.

### ***The setting a Scheduled Ancient Monument or a Listed Building***

4.1.43 The National Grid note to Rule 2 refers to the setting of historic buildings and other cultural heritage features, however, there a definition of setting is not provided.

### ***Environmental and planning designations – examples of designation to be taken into account in the routing of new high voltage transmission lines***

#### ***Major Areas of Highest Amenity Value***

4.1.44 Relevant national or international designations for major areas of highest amenity value could include the following:

- Special Areas of Conservation
- Special Protection Areas
- RAMSAR Sites
- National Scenic Areas
- National Parks
- National Nature Reserves
- Protected Coastal Zone Designations
- Sites of Special Scientific Interest
- Scheduled Ancient Monuments
- Listed Buildings
- Conservation Areas
- World Heritage Sites
- Historic Gardens and Designated Landscapes

#### ***Other Smaller Areas of High Amenity Value***

4.1.45 There are other designations identified in development plans of local planning authorities which include areas of high amenity value.



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- Areas of Great Landscape Value
- Regional Scenic Areas
- Regional Parks
- Country Parks

4.1.46 The nature of the landscape in these areas is such that some parts may also be sensitive to intrusion by high voltage OHLs but it is likely that less weight would be given to these areas than to National Scenic Areas and National Parks.

### ***Flora and Fauna***

4.1.47 Legislation sets out the procedure for designation of areas relating to flora, fauna and to geographical and physio-geographical features. Designations relevant to the routing of transmission lines will include Special Area of Conservation, Special Protection Area, Sites of Special Scientific Interest, National Nature Reserves, Ramsar Sites and may also include local designations such as Local Nature Reserve.

### ***Area of Historic, Archaeological or Architectural Value***

4.1.48 Certain designations covering more limited areas are of relevance to the protection of views and the settings of towns, villages, buildings or historic, archaeological or architectural value. These designations include features which may be of exceptional interest. Of particular importance in this connection are:

- Scheduled Monuments
- Listed Buildings
- Conservation Areas
- Gardens and Designated Landscapes included in the Inventory of Gardens and Designated Landscapes of Wales.

### ***Green Belt***

4.1.49 Generally, the purposes of Green Belt are not directly concerned with the quality of the landscape.



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## **FIGURE 1 INDICATIVE GRID CONNECTION ROUTE APPRAISAL STUDY AREA**

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