



## Wylfa Newydd Project

### 6.1.3 ES Volume A - Introduction to the project and approach to the EIA A3 - Environmental context

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## 3 Environmental context

### 3.1 Introduction

- 3.1.1 This chapter describes the environmental context of the Isle of Anglesey and the areas around the Wylfa Newydd Project development sites.
- 3.1.2 Section 3.2 provides the environmental context for the Isle of Anglesey, and then sections 3.3, 3.4 and 3.5 provide the environmental context for the areas around the Wylfa Newydd Development Area, Off-Site Power Station Facilities and Associated Development sites respectively. The locations of these development sites are shown on figure A1-1 (Application Reference Number: 6.1.10) accompanying chapter A1 (introduction) (Application Reference Number: 6.1.1).
- 3.1.3 The information provided in this chapter is intended as a high-level introduction to the sites and their settings. More detailed information, including information for wider study areas where appropriate, is provided within the baseline conditions sections of each of the topic chapters in volumes C to H (Application Reference Numbers: 6.3.1 to 6.8.11).

### 3.2 The Isle of Anglesey

#### *Location*

- 3.2.1 The Isle of Anglesey is situated off the north-west coast of Wales, separated from Bangor on the mainland by the Menai Strait. It is the largest of the Welsh islands covering an area of 720km<sup>2</sup>.

#### *History and culture*

- 3.2.2 The Isle of Anglesey has a valuable historic environment, characterised by numerous Scheduled Monuments and archaeological sites (terrestrial and marine); landscapes of outstanding historic interest; Listed Buildings and Conservation Areas. Beaumaris Castle, in the east of Anglesey, is one of a group of four castles in North Wales making up the 'Castles of King Edward I' World Heritage Site.
- 3.2.3 The Welsh language has played an integral part in Anglesey's history and culture, although census data show that there has been a decrease over recent decades in the percentage of people speaking Welsh. In 2001, 60% spoke the Welsh language, and this decreased to 57% in 2011 [RD1]. The Isle of Anglesey County Council (IACC) recognises the importance of preserving the traditions and culture of Wales [RD2], and therefore promotes and facilitates the use of the Welsh language on Anglesey. The IACC has a target for 60% of the population to be Welsh speakers by 2020 [RD3].

#### *Socio-economic context*

- 3.2.4 In 2011, Anglesey had a resident population of around 70,000, equivalent to just over 2% of the population of Wales. Approximately 16% of Anglesey's

residents were of working age, and 22% were aged 65 or over. Employment rates on Anglesey (70.8%) were broadly comparable to those for Wales as a whole (71.2%) [RD4].

- 3.2.5 The population of Anglesey is decreasing, in part due to the closure of key industrial sites. The Welsh Government has made projections that the population on Anglesey is expected to continue to decline [RD5].
- 3.2.6 The Isle of Anglesey has a small number of large employers, predominately based around the public sector (for example the IACC and health care services) and the construction and manufacturing industries (for example Anglesey Aluminium Metal Limited, although the main plant closed in 2009) and the Existing Power Station. Smaller employers exist in the agriculture and retail sectors [RD5].
- 3.2.7 Tourism plays an important role in the local economy, with data indicating more than five million visitors to the island in 2014, generating £260.4 million of revenue for the local economy [RD6].
- 3.2.8 The Existing Power Station has made a notable contribution to the economy and employment during its construction and since it was commissioned in 1971. At the end of 2015, electricity generation ceased and decommissioning has now begun.

### ***Transport network***

- 3.2.9 Figure A3-1 shows key features of the local transport network. Anglesey is connected to mainland Wales by the Britannia Bridge and the Menai Suspension Bridge, both crossing the Menai Strait near Bangor. The A55 crosses the Britannia Bridge and continues north-west to Holyhead, from where ferry services connect with the Republic of Ireland. Similarly, the railway line along the North Wales coast crosses onto Anglesey via the Britannia Bridge and connects to the Port of Holyhead.
- 3.2.10 The A5 crosses the Menai Suspension Bridge, to the east of the Britannia Bridge, and then runs parallel to the A55 for much of its route across Anglesey.
- 3.2.11 The A5025 leaves the A55 near Llanfair Pwllgwyngyll, just north of the Menai Strait, heads around the east and north of the island, past the Wylfa Newydd Development Area, before heading south again to re-join the A55 at Junction 3 near Valley, south-east of Holyhead.
- 3.2.12 Anglesey Airport is located at RAF Valley, in the south-west of Anglesey, from where passenger flights operate to Cardiff.
- 3.2.13 The locations of these transport network features are shown in figure A3-1 (Application Reference Number: 6.1.10).

### **3.3 Wylfa Newydd Development Area (containing the Power Station, other on-site development, Marine Works and the Site Campus)**

- 3.3.1 The Wylfa Newydd Development Area is bounded to the north by the Existing Power Station and a stretch of coastline including Wylfa Head. It extends into the marine environment at Porth-y-pistyll. To the east, it is separated from the town of Cemaes by agricultural land. The A5025 road defines part of the south-east boundary. To the south and west, the site abuts agricultural land with a small number of residential dwellings and farmsteads. To the west, the site is bounded by the coastal hinterland and Cestyll Valley Garden, beyond which lies Cemlyn Bay.
- 3.3.2 The Existing Power Station occupies land to the north of the Wylfa Newydd Development Area. The site is now owned by the Nuclear Decommissioning Authority, which is decommissioning the site.
- 3.3.3 The landscape in this area is characterised by small rounded hills (known as drumlins). Land within and surrounding the Wylfa Newydd Development Area is predominantly in agricultural use, for grazing by sheep or cattle. Land is contained by hedgerows and dry stone walls ('cloddiau'), and crossed by a network of roads, rural lanes, watercourses and overhead electricity infrastructure.
- 3.3.4 Settlement patterns around the Wylfa Newydd Development Area are characterised by small clusters of residential dwellings and more isolated farmsteads. Larger settlements in the immediate vicinity of the Wylfa Newydd Development Area include the villages of Cemaes, 2km to the east, and Tregele, 1km to the south-east.
- 3.3.5 A number of Public Rights of Way (PRoWs), including the Wales Coast Path and the Copper Trail, cross the Wylfa Newydd Development Area. The Wales Coast Path is a long-distance trail that follows the entire coastline of Wales. Some sections of the route divert inland where access is restricted, as is the case where the path runs inland of the Existing Power Station. The Copper Trail is part of the National Cycle Network (Route 566).
- 3.3.6 Land to the north and west of the Wylfa Newydd Development Area is within the Anglesey Area of Outstanding Natural Beauty (AONB) and the North Anglesey Heritage Coast, the location of the Anglesey AONB is shown on figure A3-2 (Application Reference Number: 6.1.10).
- 3.3.7 There are a number of sites subject to ecological conservation designations (both statutory and non-statutory) of international, national and local importance within and in the vicinity of the Wylfa Newydd Development Area. Notable sites include:
- Tre'r Gof and Cae Gwyn Sites of Special Scientific Interest (SSSIs);
  - Cemlyn Bay SSSI which forms part of the Anglesey Terns Special Protection Area (SPA);
  - Cemlyn Bay Special Area of Conservation (SAC);

- North Anglesey Marine SAC; and
- Anglesey Terns SPA.

- 3.3.8 Tre'r Gof SSSI is located within the Wylfa Newydd Development Area. Tre'r Gof SSSI has been designated for its rich fen habitat containing rushes and sedge species, including blunt-flowered rush and fen sedge and black bog rush. Cae Gwyn SSSI is located adjacent to the Wylfa Newydd Development Area border in the south. It is designated for its acidic basin mires containing sphagnum mosses and numerous royal ferns.
- 3.3.9 The Cemlyn Bay designated sites are located approximately 350m from the proposed site. The North Anglesey Marine SAC and the Anglesey Terns SPA cover the whole of the marine environment in the study area; hence the Wylfa Newydd Development Area is partly within these two designated sites.
- 3.3.10 The location of these designated sites is shown on figure A3-2 (Application Reference Number: 6.1.10).

### **3.4 Off-Site Power Station Facilities**

- 3.4.1 The proposed site for the Off-Site Power Station Facilities is in Llanfaethlu, between Valley and the Power Station Site. The site would be located approximately 450m north-east from the centre of the village of Llanfaethlu. Currently the land is being used by an existing business as a garage and for bus parking. It is bounded by the existing A5025 road to the west, residential and storage buildings to the north, and farmland and a small sewage works to the south and east. Across the A5025, within 100m west of the proposed site, a new primary school was opened in September 2017.
- 3.4.2 Four PRowS run within 250m of the proposed site.
- 3.4.3 Llyn Garreg-lwyd SSSI is approximately 700m from the proposed site. This SSSI is designated for its tall fen, dominated by common reed, which supports a range of breeding bird species. The location of this designated site is shown on figure A3-3 (Application Reference Number: 6.1.10).

### **3.5 Associated Development**

- 3.5.1 The Site Campus would be located within the Wylfa Newydd Development Area, hence the environmental context provided in section 3.3 above is relevant to it. Other Associated Development would be located elsewhere, and the relevant environmental context is described below.

#### ***Park and Ride***

- 3.5.1 The Park and Ride would be located near Dalar Hir, north of Llanfihangel-yn-Nhywyn, approximately 3km east of Valley, close to Junction 4 of the A55. The area is characterised by agricultural land with a number of small settlements and farmsteads. There are a number of larger settlements located nearby, with Llanfihangel-yn-Nhywyn approximately 400m to the south and Bodedern 1km to the north.



- 3.5.2 The site is bounded to the south by the A5 and to the west by a road leading to Bodedern. To the east and north, the site is bounded by agricultural land.
- 3.5.3 There are a number of designated ecological sites some distance to the south of Dalar Hir. Llynnau y Fali – Valley Lakes SSSI and Llyn Dinam SAC are approximately 1.5km from the proposed site, and Llyn Traffwll SSSI is 1km away.
- 3.5.4 Llynnau y Fali – Valley Lakes SSSI is designated for its marshland and damp grassland habitats. It contains two lakes, one of which includes Llyn Dinam SAC. These habitats support a variety of aquatic flora such as pondweed and duckweed. The lakes also support wintering wildfowl such as shoveler, teal, tufted duck, pochard and goldeneye.
- 3.5.5 Llyn Traffwll SSSI is designated for its base-rich lake and aquatic flora which support overwintering wildfowl such as shoveler. Other bird species present include wigeon, mallard, gadwall, goldeneye, pochard and tufted duck.
- 3.5.6 The location of these designated sites is shown on figure A3-4 (Application Reference Number: 6.1.10).

### ***A5025 Off-line Highway Improvements***

- 3.5.7 Five sections of Off-line Highway Improvements along the A5025 between Valley and the Power Station Access Road Junction are proposed within the application for development consent. These sections would be at Valley, Llanfachraeth, Llanfaethlu, Cefn Coch and the Power Station Access Road Junction.

### ***A5025 Off-line Highway Improvements at Valley***

- 3.5.8 The A5025 Off-line Highway Improvements at Valley would connect the A5 with the existing A5025, and would pass approximately 700m east of the centre of the village, through existing agricultural land. Anglesey AONB is approximately 400m south-west from the proposed works at Valley.
- 3.5.9 The location of the AONB is shown on figure A3-4 (Application Reference Number: 6.1.10).
- 3.5.10 North-east from the site, the land is currently being used for agriculture. South from the proposed site is a freight yard adjacent to the existing railway line near Valley. Approximately 130m south-east from the proposed site is a cemetery.

### ***A5025 Off-line Highway Improvements at Llanfachraeth***

- 3.5.11 The A5025 Off-line Highway Improvements at Llanfachraeth would pass approximately 290m east from the centre of the village, through existing agricultural land. To the west, the existing A5025 follows the boundary of the Anglesey AONB. East of the proposed A5025 Off-line Highway Improvements is agricultural land and a small number of scattered residential dwellings and farmsteads. These buildings are connected by a number of PRoWs.

- 3.5.12 The A5025 Off-line Highway Improvements would cross the Afon Alaw and a minor tributary on a viaduct, approximately 200m upstream of its estuary and the Beddmanarch – Cymyran SSSI. This designated site contains a number of coastal habitats such as sandbank, mudflat and saltmarsh. A wide range of water and coastal birds use this habitat for passage, during winter and as breeding sites.
- 3.5.13 The location of these designated sites is shown on figure A3-3 (Application Reference Number: 6.1.10).

### **A5025 Off-line Highway Improvements at Llanfaethlu**

- 3.5.14 The A5025 Off-line Highway Improvements at Llanfaethlu would pass 200m east from the centre of the village, and in places would be adjacent to the border of the Anglesey AONB. East of here, there are a number of buildings which include residential properties, as well as the proposed site for the Off-Site Power Station Facilities. To the west is the village of Llanfaethlu which is surrounded by agricultural land. North-west from the A5025 Off-line Highway Improvements is Llyn Garreg-lwyd SSSI, as described in paragraph 3.4.3 above.
- 3.5.15 The location of these designated sites is shown on figure A3-3 (Application Reference Number: 6.1.10).

### **A5025 Off-line Highway Improvements at Cefn Coch**

- 3.5.16 The A5025 Off-line Highway Improvements at Cefn Coch would be located to the west of the existing A5025, through land that is currently used for agriculture. The Anglesey AONB is located north-west from the site. The distance from the AONB would vary along the works, but the closest point would be approximately 700m away.
- 3.5.17 The proposed A5025 Off-line Highway Improvements would be up to 40m further away from residential properties located to the east of the existing A5025. The properties, which are accessed via a minor road to the east of the A5025, are also connected by PRowS to areas further eastwards.
- 3.5.18 Approximately 240m south-east from the proposed A5025 Off-line Highway Improvements is Llyn Llygeirian SSSI. This site is designated for its lake habitat which supports a range of aquatic flora. Additionally, it supports a number of wintering bird species such as gadwall and whooper swans.
- 3.5.19 The location of these designated sites is shown on figure A3-3 (Application Reference Number: 6.1.10).

### **Power Station Access Road Junction**

- 3.5.20 The Power Station Access Road Junction would connect the existing A5025 to the Power Station Access Road near the southern limit of the Wylfa Newydd Development Area. North, east and south-east from the proposed junction is existing agricultural land. The site of medieval domestic remains at Groesfechan is adjacent to the site, to the south-west. Approximately 500m north-east from the site is the edge of the village of Tregle.

- 3.5.21 Approximately 1.5km north-east from the proposed junction is Tre'r Gof SSSI and approximately 130m west from the proposed site is Cae Gwyn SSSI. These designated sites are located within and adjacent to the Wylfa Newydd Development Area respectively as described in section 3.3.

### **Logistics Centre**

- 3.5.22 The Logistics Centre would be located approximately 2km south of the centre of Holyhead, and 250m south from existing industrial and commercial premises. The area of land for the proposed Logistics Centre is currently being used for arable farming.
- 3.5.23 The site of the proposed Logistics Centre is bounded to the north-east by the A55, beyond which lie existing industrial and commercial premises, including Penrhos Business Park, an aluminium works and sewage works. To the south-west, the site is bounded by a road, and south-east is agricultural land.
- 3.5.24 Approximately 200m south-east from the site boundary is an area of coniferous woodland.
- 3.5.25 Trefignath Burial Chamber, 150m south of the site, is a Scheduled Monument. In addition, Ty Mawr Standing Stone is a Scheduled Monument located approximately 450m north-west from the proposed site.
- 3.5.26 The proposed site would be located within the Anglesey AONB.
- 3.5.27 The closest ecological designation, Beddmanarch – Cymyran SSSI is approximately 1.5km south-east of the proposed site. The SSSI contains a variety of coastal habitats including sandbank, mudflat and saltmarsh. There are also a number of coastal birds that use it as a breeding area. In between the proposed site and the SSSI are areas of coniferous and mixed woodland.
- 3.5.28 The locations of these designated sites are shown on figure A3-4 (Application Reference Number: 6.1.10).

## **3.6 References**

**Table A3-1 Schedule of references**

ID	Reference
RD1	Office for National Statistics. 2017. <i>2011 Census: Quick Statistics</i> . [Online]. [Accessed: 19 March 2017]. Available from: <a href="http://www.neighbourhood.statistics.gov.uk/dissemination/LeadTableView.do?a=7&amp;b=6275328&amp;c=anglesey&amp;d=13&amp;e=61&amp;q=6488680&amp;i=1001x1003x1032x1004&amp;o=362&amp;m=0&amp;r=1&amp;s=1489766645904&amp;enc=1&amp;dsFamilyId=2499">http://www.neighbourhood.statistics.gov.uk/dissemination/LeadTableView.do?a=7&amp;b=6275328&amp;c=anglesey&amp;d=13&amp;e=61&amp;q=6488680&amp;i=1001x1003x1032x1004&amp;o=362&amp;m=0&amp;r=1&amp;s=1489766645904&amp;enc=1&amp;dsFamilyId=2499</a> .
RD2	Isle of Anglesey County Council (IACC) and Gwynedd Council. 2017. <i>Anglesey and Gwynedd Joint Local Development Plan 2011 – 2026, Written Statement, Composite Version incorporating Matters Arising Changes</i> . [Online]. [Accessed: April 2017]. Available from: <a href="http://www.anglesey.gov.uk/Journals/z/t/f/Composite-Plan-MACs-2017.pdf">http://www.anglesey.gov.uk/Journals/z/t/f/Composite-Plan-MACs-2017.pdf</a> .

ID	Reference
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RD5	Isle of Anglesey County Council (IACC). 2008. <i>Local Development Plan 2006 - 2021</i> . [Online]. [Accessed: 20 March 2017]. Available from: <a href="http://www.anglesey.gov.uk/Journals/public/attachments/92/Contents_Opening_Comments_Chapters_1_2_and_3.pdf">http://www.anglesey.gov.uk/Journals/public/attachments/92/Contents_Opening_Comments_Chapters_1_2_and_3.pdf</a> .
RD6	Global Tourism Solutions. 2016. <i>STEAM model tourism economic impact</i> [Online]. [Accessed: 28 March 2017]. Available from: <a href="http://www.globaltourismsolutions.co.uk/steam-model">http://www.globaltourismsolutions.co.uk/steam-model</a> .