



Wylfa Newydd Project

6.4.3 ES Volume D - WNDA Development D3 - Socio-economics

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3 Socio-economics

3.1 Introduction

- 3.1.1 This chapter describes the assessment of potential socio-economic effects resulting from the construction, operation and decommissioning of the Power Station, other on-site development as described in chapter A1 (introduction) (Application Reference Number: 6.1.1) Marine Works and the Site Campus within the Wylfa Newydd Development Area.
- 3.1.2 This chapter excludes project-wide socio-economic effects, which are considered in the assessment contained within chapter C1 (socio-economics) (Application Reference Number: 6.3.1).
- 3.1.3 Please refer to chapter B2 (socio-economics) (Application Reference Number: 6.2.2) for the technical basis for the assessment including a summary of legislation, policy and guidance; key points arising in consultation that have guided the socio-economic assessment; and assessment methodologies and criteria.

3.2 Study area

- 3.2.1 This section describes the study area relevant to the socio-economics assessment for the Wylfa Newydd Development Area.
- 3.2.2 The socio-economic assessment addresses social and economic effects. For the purposes of this assessment, social effects refer to the consequences of the development within the Wylfa Newydd Development Area, which includes the WYDA Development (i.e. the Power Station; Marine Works; other on-site development; and Site Campus), on human populations including how people live, work, play, relate to one another, organise to meet their needs and generally operate as members of society. Welsh language and culture is also a core part of society on Anglesey and effects of the Wylfa Newydd Project on these aspects are considered in a separate Welsh Language Impact Assessment (Application Reference Number: 8.21) that accompanies the application for development consent for the Wylfa Newydd Project. The economic assessment covers effects on businesses, employment and direct spending that may arise as a consequence of development within the Wylfa Newydd Development Area.
- 3.2.3 In accordance within the 2016 Scoping Report (chapter A6) (Application Reference Number: 6.1.6), the assessment has considered the following socio-economic issues:
- neighbouring communities and local services: effects on population, community and education facilities and health provision;
 - public safety: potential change in public safety (including crime levels);
 - local businesses: effects on the local businesses (including tourism businesses) and on the local economy; and
 - land use: potential change in land use which could result in a reduction in economic value.

- 3.2.4 Potential direct effects of development within the Wylfa Newydd Development Area on public services would be included within the assessment of neighbouring communities and local services. Potential effects on accommodation supply and on the tourism sector, such as a result of changes in visitor numbers, have not been included in this assessment as they are assessed at a project-wide level and detailed within chapter C1 (Application Reference Number: 6.3.1). Potential localised socio-economic effects specific to the Site Campus are assessed within this chapter.
- 3.2.5 Direct effects of development within the Wylfa Newydd Development Area in terms of 'neighbouring communities and local services', 'public safety', and 'local businesses' are considered within the context of a local area of influence (LAI), which extends to a 5km radius from the boundary of the Wylfa Newydd Development Area. This area has been selected to ensure that significant effects on the physical environment (in terms of air, noise and visual assessment) and other socio-economic effects are considered.
- 3.2.6 The Daily Construction Commuting Zone (DCCZ), an area based upon a 90-minute commute time from the boundary of the Wylfa Newydd Development Area, has also been considered in the assessment of local effects on businesses which includes consideration for potential effects of Power Station operation on the local economy.
- 3.2.7 The study area for the topic of 'land use' is confined to the direct land take within the boundary of the Wylfa Newydd Development Area itself.
- 3.2.8 The study areas discussed above are presented in figure D3-1 (Application Reference Number: 6.4.101) and figure C1-1 (Application Reference Number: 6.3.32), with figure D3-1 presenting a more specific focus on the Wylfa Newydd Development Area, and figure C1-1 presenting the full extent of the DCCZ.

3.3 Baseline environment

- 3.3.1 This section provides a summary of the baseline conditions for socio-economics within the study area described in section 3.2.

Neighbouring communities and local services

Population

- 3.3.2 In the context of the 2011 Electoral Ward Boundaries, which most accurately presents the LAI, the Wylfa Newydd Development Area is located on the boundary of two electoral wards, namely Llanbadrig and Mechell. The population of these electoral wards in 2011 was 1,357 (52.4% welsh speakers) and 1,545 (61.1% welsh speakers) respectively, while the population of both electoral wards collectively was 2,902 (57.1% welsh speakers). Anglesey had a resident population of around 70,000 in the same year, illustrating that collectively both wards represented approximately 4% of the total population of Anglesey. The working age population (those aged between 16 and 64) provides an indicator of the capacity of the population to participate in economic activity. The collective working age population of both Llanbadrig and Mechell was approximately 60% of the total combined ward population.

This working age population was just lower than across Anglesey which had 61% of its total population within the working age bracket in the same year. The Welsh national average was also higher than both wards combined at 63%. Census 2011 data also reveal that people aged 65 and over comprised a marginally higher proportion of the population within each ward than was the case when compared to Anglesey and Wales (table d3-1).

Table D3-1 Population distribution by age cohort, 2011 [RD1]

Age	Llanbadrig		Mechell		Isle of Anglesey		Wales	
	Number	%	Number	%	Number	%	Number	%
Age 0 to 15	218	16	256	16	11,861	17	556,296	18
Age 16 to 64	786	58	966	63	42,244	61	1,944,616	63
Age 65 to 74	200	15	199	13	8,574	12	300,550	10
Age 75 plus	153	11	124	8	7,072	10	261,994	9
Total (all usual residents)	1,357	100	1,545	100	69,751	100	3,063,456	100

Community facilities

- 3.3.3 Cemaes and Treglele are the nearest communities to the Wylfa Newydd Development Area, where both communities are located within 100m of the Order Limits. Both settlements predominantly consist of residential properties but also possess a limited range of commercial, community and amenity facilities, such as a heritage centre (Cemaes Heritage Centre), Post Office, churches (Bethel Congregational Chapel and Bethesda M.C. Cemaes), community centre (Village Hall), etc.
- 3.3.4 The villages of Llanfechell and Carreglefn are located approximately 2km and 4km respectively to the south-east of the Wylfa Newydd Development Area. Both villages are also predominantly residential, with Llanfechell possessing a limited range of facilities including schools (see paragraph 3.3.6), churches and commercial receptors (see table D3-4).
- 3.3.5 A concentration of residential receptors is also located at Llanrhyddlad, 4.5km south-west of the Wylfa Newydd Development Area.

Education facilities

- 3.3.6 There are 47 primary schools, five secondary schools and one special school on the Isle of Anglesey. The closest schools to the Wylfa Newydd Development Area, all of which offer education in Welsh, are listed below:

- Ysgol Gynradd Cemaes (primary school) is located approximately 470m to the east of the site. In 2015, there were 90 pupils on the roll and the school had a capacity of 89.
- Ysgol Gymuned Llanfechell (primary school), approximately 1.8km to the south-east. In 2015, there were 72 pupils on the roll and the school had a capacity of 119.

Health provision

- 3.3.7 The closest health facilities to the Wylfa Newydd Development Area are several GP services (Meddygfa Cemaes Surgery, Cemaes Doctors, and Dr B. A. Griffith) as well as Rowlands Pharmacy and Cemaes Bay Dental Practice, all situated in Cemaes, located less than 1km to the east. There are no residential care homes located within the LAI for the Wylfa Newydd Development Area and there is no hospital with accident and emergency facilities on the Isle of Anglesey. The closest is Ysbyty Gwynedd in Bangor, however, Ysbyty Penrhos Stanley in Holyhead operates a Minor Injuries Unit 12 hours per day, seven days a week.

Public safety

- 3.3.8 Outlined below is the current baseline with respect to public safety and crime. This is presented regionally and set within the national context and then specifically for the LAI study area.
- 3.3.9 According to the Office of National Statistics, north Wales had a total recorded crime rate (excluding fraud) of 58.6 per 1,000 population in 2016 [RD2]. This crime rate was lower than the Welsh national rate of 64.4 per 1,000 population and considerably lower than the combined rate across England and Wales (71.9 per 1,000). The crime category of ‘violence against the person’ recorded a rate of 19.4 per 1,000 population (marginally higher than the England and Wales combined national rate of 19.3 per 1,000 population). ‘Theft offences’ reported a rate of 20.4 per 1,000 population which was significantly lower than the Welsh national rate of 24.1 per 1,000 population and the combined national rate (31.4 per 1,000 population) in England and Wales.
- 3.3.10 According to Police crime statistics, there were 111 crimes reported in the Llanbadrig and Mechell wards in 2016. The month with the highest number of crime reports was March 2016 with 11 reports (in Llanbadrig). Antisocial behaviour was the most common crime reported, as highlighted by table d3-2.

Table D3-2 Crimes reported in Llanbadrig and Mechell [RD3]

Month	Ward	No. of Crimes	Nature of crimes
January 2016	Llanbadrig	5	Criminal damage and arson, violence and sexual offences, other theft
	Mechell	2	Robbery, violence and sexual offences
	Llanbadrig	4	Antisocial behaviour, other theft

Month	Ward	No. of Crimes	Nature of crimes
February 2016	Mechell	5	Antisocial behaviour, violent/sexual offences, burglary
March 2016	Llanbadrig	11	Antisocial behaviour, violent/sexual offences, other theft
	Mechell	5	Antisocial behaviour, violent/sexual offences, other theft, public order
April 2016	Llanbadrig	3	Antisocial behaviour, criminal damage and arson, other theft
	Mechell	6	Antisocial behaviour, criminal damage and arson, other crime, other theft, public order
May 2016	Llanbadrig	4	Antisocial behaviour, other theft
	Mechell	7	Violent/sexual offences, criminal damage and arson, possession of weapons, other theft
June 2016	Llanbadrig	10	Antisocial behaviour, violent/sexual offences, criminal damage and arson
	Mechell	7	Antisocial behaviour, violent/sexual offences
July 2016	Llanbadrig	6	Antisocial behaviour, violent/sexual offences, other crime, other theft
	Mechell	3	Violent/sexual offences, other theft
August 2016	Llanbadrig	2	Antisocial behaviour, violent/sexual offences
	Mechell	2	Antisocial behaviour, other theft
September 2016	Llanbadrig	2	Violent/sexual offences
	Mechell	6	Violent/sexual offences, vehicle crime, bicycle theft, criminal damage and arson
October 2016	Llanbadrig	1	Antisocial behaviour
	Mechell	4	Violent/sexual offences, vehicle crime, burglary
November 2016	Llanbadrig	5	Antisocial behaviour, violent/sexual offences
	Mechell	7	Antisocial behaviour, violent/sexual offences
	Llanbadrig	2	Antisocial behaviour, other theft

Month	Ward	No. of Crimes	Nature of crimes
December 2016	Mechell	2	Violent/sexual offences

3.3.11 Table D3-3 shows the trend data for the total number of crimes committed in Llanbadrig and Mechell between 2011 and 2016. As illustrated below, there has been a considerable decline in crime rates overall, with a 49% decrease in reported crime between 2011 and 2016; however, there was a rise in the number of crimes reported between 2014 and 2016.

Table D3-3 Trend data on crimes in Llanbadrig and Mechell 2011- 2016 [RD3]

Year	2011	2012	2013	2014	2015	2016
Number of total crimes in Llanbadrig	152	84	93	54	67	55
Number of total crimes in Mechell	73	87	47	26	58	56
Total:	225	171	140	80	125	111

Local businesses

3.3.12 The Wylfa Newydd Development Area is located within the local economy of the DCCZ study area. In 2015, this area had a gross value added of approximately £6.6 billion [RD4].

3.3.13 Data from Experian's B2B Prospector database shows that there are approximately 90 businesses within 5km of the Wylfa Newydd Development Area [RD5]. These include:

- construction companies (11);
- engineering companies (4);
- tourist businesses (including hotels and restaurants/catering) (14);
- hairdressing and beauty salons (3);
- pubs (2);
- health and social care (4);
- retailers (5); and
- business services (IT, professional services, consultancy, financial services) (18).

3.3.14 Approximately 29 businesses were classified as "other". In addition, there are two dental practices, one GP surgery and one library within 5km (LAI) of the Wylfa Newydd Development Area.

3.3.15 While tourism is not considered as a sector within this assessment, the potential for direct effects on tourism businesses from the activities associated with the construction, operation and decommissioning phases of developments within the Wylfa Newydd Development Area are included.

3.3.16 Table D3-4 shows the type and location of a selected range of businesses (including tourism businesses) located within Cemaes, Treglele and Llanfechell, the largest communities within the LAI.

Table D3-4 Businesses within 5km LAI of the Wylfa Newydd Development Area

Business	Description	Location
Woburn Hill Hotel	Accommodation	2 High Street, Cemaes Bay, LL67 0HH
Bryn Padrig B&B	Accommodation	55 High Street, Cemaes Bay, LL67 0HL
Annwylaf Cottage	Accommodation	22 High Street, Cemaes Bay, LL67 0HL
The Harbour Hotel	Accommodation	Yr Ardd, Cemaes Bay, LL67 0NW
Ty Lawr	Accommodation	21 Beach Road, Cemaes Bay, LL67 0ES
Treddolphin Guest House	Accommodation	Cemaes Bay, LL67 0ET
Breeze Cottages	Self-catering Accommodation	Beach Road, Cemaes Bay, LL67 0ES
Ye Olde Vigour Inn	Bar	High Street, Cemaes Bay, LL67 0HH
The Stag	Bar	Athol Street, Cemaes Bay, LL67 0EW
Jam Factory/ Beehive Preserves	Retail/Cafe	Nanner Road, Cemaes Bay, LL67 0EA
The Douglas Inn	Bar/Restaurant	Cromlech Terrace, Treglele, Cemaes Bay, LL67 0DT
Felin Honey Bees	Commercial/Tourism	Felin Gafnan, Cemlyn, LL67 0DU
Crafty T'Arts	Retail	5 High Street, Cemaes Bay, LL67 0HH
Designz Cards & Crafts	Retail	61 High Street, Cemaes Bay, LL67 0HL
Stiwdio Bach	Retail	18 High Street, Cemaes Bay, LL67 0HL
McColl's	Convenience Store	2 High Street, Cemaes Bay, LL67 0HH

Business	Description	Location
Llanfechell Village Store	Convenience Store	10 Mountain Road, Llanfechell, LL68 0SB
Williams Caravan Services/Caravan Servicing and Repairs Anglesey	Caravan Sales/Repairs	Old Police Station, Lon Ysgubor, Cemaes Bay, LL67 0LD
The Brookside Garages	Car repair	Holyhead road, Cemaes Bay, LL67 0DA
Crown Garage	Car repair/MOT Centre	Brynddu Road, Llanfechell, LL68 0PU
Tregele Petrol Station	Service Station	A5025, Tregele, Cemaes Bay, LL67 0DT
Eleanor Janes	Deli/Cafe	14 High Street, Cemaes Bay, LL67 0HH
Caffi Siop Mechell	Deli/Cafe	The Old Post Office, Plas, Llanfechell, LL68 0RA
Y Wygyr Fish and Chips	Deli/Take-away	9 High Street, Cemaes Bay, LL67 0HH
Cemaes Bay Butchers	Butchers	6 High Street, Cemaes Bay, LL67 0HH
Rowlands Pharmacy	Pharmacy	Rowlands Pharmacy, Medical Hall, Cemaes Bay, Anglesey, Gwynedd LL67 0HH

Land use

3.3.17 As illustrated in table d3-5 the majority of agricultural land on Anglesey is considered to be Grade 3, 4 or 5 in terms of Agricultural Land Classification (ALC), suggesting good to very poor land quality. The land that would be used for the construction within the Wylfa Newydd Development Area has been classified as agricultural, of various ALC classifications, including some Best and Most Versatile (BMV) land. This land represents that of highest potential economic value. The total area of the site is approximately 409ha in size, of which 248.8ha land is graded to be either Grade 2 or Grade 3a/3b BMV land. This equates to approximately 61% of the total area of the site. The non-agricultural land within the site comprises approximately 35.8ha. This is primarily the Existing Magnox Power Station, as outlined in chapter D7 (soils and geology) (Application Reference Number: 6.4.7).

Table D3-5 ALC Grades for the Isle of Anglesey, 2016 [RD6]

Grade	Description	Area (ha)	Percentage (%)
1	Excellent quality (BMV)	0	0
2	Very good quality (BMV)	1,116.9	1.6
3a	Good quality (BMV)	27,559.3	38.6
3b	Moderate quality		
4	Poor quality	27,213.8	38.1
5	Very poor quality	10,398.4	14.6
-	Non-agricultural	5,072.6	7.1

3.3.18 The site area is also utilised by the neighbouring communities, with many Public Rights of Ways (PRoWs) that access areas of Wylfa Head. It is expected that these PRoWs would be maintained during construction where practicable, however, a more detailed assessment of the potential impacts on these PRoWs and recreation overall is presented in chapter D4 (public access and recreation) (Application Reference Number: 6.4.4).

Evolution of the baseline

3.3.19 The socio-economic baseline for the Wylfa Newydd Development Area is expected to remain similar to what is reported here (i.e. between the time of writing and the commencement of construction activity).

3.4 Design basis and activities

3.4.1 This section sets out the design basis for the assessment of effects. It sets out where any assumptions have been made to enable the assessment to be carried out at this stage in the evolution of the design. It also identifies the embedded and good practice mitigation that would be adopted to reduce adverse effects as inherent design features or by implementation of standard industry good working practice.

3.4.2 As described in chapter D1 (proposed development) (Application Reference Number: 6.4.1), the application for development consent is based on a parameter approach. The assessment described within this chapter has taken into consideration the flexibility afforded by the parameters. A worst case scenario has therefore been assessed from a socio-economics perspective within the parameters described in chapter D1 (Application Reference Number: 6.4.1).

Construction

Basis of assessment and assumptions

3.4.3 The basis of assessment and assumptions made to inform this socio-economic assessment of the potential significant effects of the construction within the Wylfa Newydd Development Area are as follows:

- alongside the Power Station, Site Campus, other onsite development and Marine Works, the construction phase within the Wylfa Newydd Development Area includes the Site Preparation and Clearance works required to prepare the Wylfa Newydd Development Area for construction activities; and
- the assessment of potential effects associated with the activity of the construction workforce with respect to 'neighbouring communities', 'public safety' and 'local businesses' are included in this chapter.

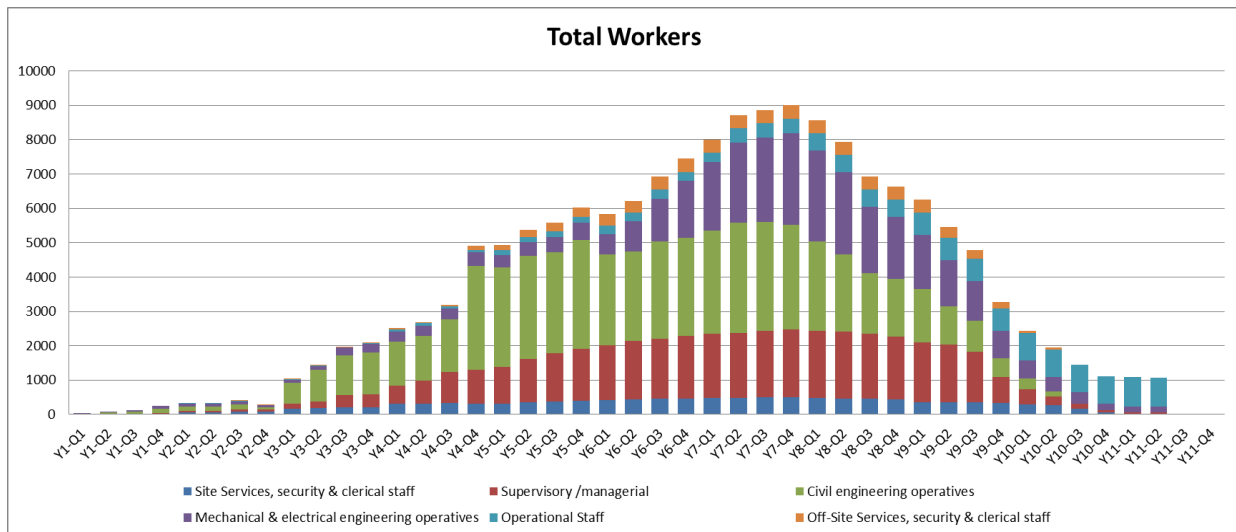
3.4.4 Additional potential effects with respect to the demand for accommodation and local services from these workers are not presented here as they are assessed within a project-wide assessment detailed in chapter C1 (Application Reference Number: 6.3.1). However, potential effects on local services (schools, healthcare facilities, etc.) directly associated with the Site Campus are considered within this chapter.

3.4.5 Figure D3-2 provides an indicative construction timeline for all elements of the Wylfa Newydd Project. Figure D3-3 provides the indicative workforce profile anticipated to be required during the construction phase. The assumptions on construction timeline and workforce size are made on the expectation that construction would commence in the first year following the granting of the Development Consent Order (DCO). The timeline illustrates that a portion of the operational workers would join the wider construction workforce during the construction phase as Unit 1 becomes operational from year 8. Construction works within the Wylfa Newydd Development Area also overlap with those for some of the other Associated Developments considered part of the Wylfa Newydd Project, including the Off-Site Power Station Facilities and Logistics Centre.

Figure D3-2 Construction timeline for the Wylfa Newydd Project

Timeline – Calendar Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9
A5025 – On-line (Highway Improvements)									
A5025 – Off-line (Highway Improvements)									
Site campus									
Park and Ride									
Logistics Centre									
Off-Site Power Station Facilities (MEEG/AECC/ ESL)									
Site Preparation and Clearance (SPC)									
Unit 1 – construction, commissioning and start-up									
Unit 2 – construction, commissioning and start-up									

Figure D3-3 Construction workforce profile



3.4.6 Due to the significant number of construction workers that are expected to be required for the construction phase within the Wylfa Newydd Development Area, provisions have been included in the design of the Wylfa Newydd Project. As illustrated in figure D3-2, the Site Campus would be constructed on a phased basis in line with the Power Station’s construction programme and workforce growth. The development and use of the Site Campus represents a focal point for consideration of potential effects on the LAI.

Embedded mitigation

- 3.4.7 The Associated Developments (i.e. the Site Campus, Park and Ride facility at Dalar Hir, the Logistics Centre and the A5025 Off-line Highway Improvements) included in the Wylfa Newydd Project are considered to be embedded mitigation for the potential environmental and socio-economic effects of the Wylfa Newydd Project (i.e. the operation of the Wylfa Newydd Power Station and accompanying facilities). These facilities are secured through the Phasing Strategy (Application Reference Number: 8.29). Within the Wylfa Newydd Development Area, the facilities located within the Site Campus, (facilities that meet workers' needs, such as good quality food and relaxation on site) are also considered to be embedded mitigation for both the effects of the Site Campus itself and for the Wylfa Newydd Project. These embedded mitigation measures are set out in volume 3 of the Design and Access Statement (Associated Developments and Off-Site Power Station Facilities) (Application Reference Number: 8.2.3)
- 3.4.8 Access to and from the Wylfa Newydd Development Area would be security monitored/controlled. Restrictions on private/personal transportation would be put in place and workers would be incentivised to utilise Project-sponsored transportation arrangements (i.e. Park and Ride Facility and shuttle buses to Holyhead ferry port and local railway stations) (see also Workforce Management Strategy (Application Reference Number: 8.5)). Such provisions are outlined in the traffic and transport management strategy of the Wylfa Newydd Code of Construction Practice (CoCP) (Application Reference Number: 8.6) and the accompanying Main Power Station Site sub-CoCP (Application Reference Number: 8.7). Compliance with the Wylfa Newydd CoCP (Application Reference Number: 8.6) and the Main Power Station Site sub-CoCP (Application Reference Number: 8.7) will be a DCO requirement.
- 3.4.9 Key topic chapters within volume D of this Environmental Statement (e.g. chapter D4, (Application Reference Number: 6.4.4); chapter D10 (landscape and visual) (Application Reference Number: 6.4.10); chapter D5 (air quality) (Application Reference Number: 6.4.5); and, chapter D6 (noise and vibration) (Application Reference Number: 6.4.6)) also provide mitigation of socio-economic effects which will be secured by the Wylfa Newydd CoCP (Application Reference Number: 8.6) and Main Power Station Site sub-CoCP (Application Reference Number: 8.7).
- 3.4.10 Phased implementation of the landscape mounding, seeding of pasture and woodland planting will soften views of the Power Station, and will include early creation of the outer slopes and top of the linear landscaped mound adjacent to Tregle, and landscape mounding on the edge of Cemaes.
- 3.4.11 More information on embedded mitigation for project-wide socio-economic effects can be found in chapter C1 (Application Reference Number: 6.3.1).

Good practice mitigation

Code of Construction Practice

- 3.4.12 The Wylfa Newydd CoCP (Application Reference Number: 8.6), Main Power Station Site sub-CoCP (Application Reference Number: 8.7) and Marine Works sub-CoCP (Application Reference Number: 8.8) set out the requirements of work that ensures compliance with legislation and the effective planning, management and control of construction activities with the aim of reducing and avoiding adverse effects on the local community and the environment. The Wylfa Newydd CoCP (Application Reference Number: 8.6) sets out project-wide strategies supported by sub-CoCPs (i.e. Main Power Station Site sub-CoCP including the Site Campus (Application Reference Number: 8.7), and Marine Works sub-CoCP (Application Reference Number: 8.8) that provide detailed standards and measures specifically relevant to a particular location. Of specific relevance to the assessment of socio-economic effects are the communications and community/stakeholder liaison, traffic and transport, public access, air quality, noise and vibration, and ecology and landscape management strategies.
- 3.4.13 Examples of management strategies mitigating potential socio-economic impacts are outlined in both the Wylfa Newydd CoCP (Application Reference Number: 8.6), and Main Power Station Site sub-CoCP (Application Reference Number: 8.7) and highlighted below.
- 3.4.14 The Public access management strategy which details information regarding the maintaining of points of access or other routes to residential, commercial or community receptors, including PRoWs (including existing signage) throughout the construction phase, wherever possible to ensure that disruption to these receptors is reduced as far as practicable. If maintaining current access is not possible, alternative routes would be created until such a time when final access routes can be reinstated.
- 3.4.15 A more detailed assessment of potential impacts upon access routes and PRoWs due to the construction within the Wylfa Newydd Development Area and subsequent operation of the Wylfa Newydd Power Station can be found within chapter D4 (Application Reference Number: 6.4.4).
- 3.4.16 The traffic and transport management strategy outlines the proposal that a shuttle bus service be provided by Horizon to transport workers living outside of the Site Campus, and are not using the Park and Ride facility, on a daily basis. This would include the provision of direct services from the principal towns, e.g. Holyhead, Bangor, Caernarfon and a route to service the east and north of Anglesey.
- 3.4.17 The contractor undertaking the construction works will be contractually required to adhere to the detail and management strategies contained within the Wylfa Newydd CoCP (Application Reference Number: 8.6) and the Main Power Station Site and Marine Works sub-CoCPs (Application Reference Number: 8.7 and 8.8) throughout the duration of the construction period.

Landscape and Habitat Management Strategy (LHMS)

3.4.18 The landscape design of the Wylfa Newydd Development Area outside of the WNDA Development is set out through a Landscape and Habitat Management Strategy (LHMS) (Application Reference Number: 8.16). This would soften the appearance of the area and reduce the visual effects of the construction phase. The creation of the landscape as part of this strategy would be on a phased basis and consist of mounding and woodland planting. Such measures will provide screening to the communities of Treglele and Cemaes. This strategy includes habitat management measures which account for habitat creation and species relocation, where necessary, in addition to appropriate landscaping and planting to allow native species to thrive. The LHMS (Application Reference Number: 8.16) is a standalone and certified document secured by means of planning obligations.

Supply Chain Charter (and Action Plan)

3.4.19 Horizon's Supply Chain Charter as set out in the Wylfa Newydd CoCP (Application Reference Number: 8.6) describes Horizon's commitment to safety, collaboration and engagement, alongside procurement and integrity. It also outlines Horizon's expectation of suppliers, and notes how they would work together for greater beneficial outcomes for all parties.

3.4.20 Horizon is developing a Supply Chain Action Plan to support the realisation of the goals set out in the Charter. The Action Plan is being developed jointly with the IACC, the North Wales Economic Ambition Board, and the Welsh Government. Along with the Supply Chain Charter, the Supply Chain Action Plan would be secured through the Section 106 Agreement entered into between Horizon and the IACC. Terms of references and memoranda of understanding would be developed as part of this process however it is envisaged that Horizon would establish a working group that would encourage cooperation between statutory authorities, stakeholders, project partners and third-party supply-chain providers during the construction period.

3.4.21 The Action Plan aims to:

- maximise opportunities within the local area;
- support a sustainable supply chain;
- provide sufficient notice of when opportunities arise;
- simplify supplier registration (one registration for the whole of the project);
- work collaboratively with statutory authorities;
- support business readiness;
- map supply chain;
- share minimum requirements for undertaking works at Wylfa Newydd;
- monitor supplier performance (promote good performance);
- support implementation of Wylfa Newydd Employment and Skills Service (WNESS);

- focus on long term development opportunities that are sustainable post construction;
 - monitor impact of works outside of the development – displacement.
- 3.4.22 A Supply Chain Service would oversee the delivery and implementation of the Supply Chain Action Plan and would be jointly formed of stakeholders and key delivery partners from the Wylfa Newydd supply chain. The Service would also be secured through Section 106 obligations. Horizon would also continue working with the Supply Chain Service to further enhance and deliver the supply chain readiness programme.
- 3.4.23 Horizon would also develop a Supply Chain Portal, to be utilised by the Supply Chain Service and which would play a key role in ensuring the aims of the Supply Chain Action Plan are implemented. The Supply Chain Portal would be a web based procurement platform that allows interested suppliers to register once for opportunities at Wylfa Newydd, thus simplifying the process also allows the buying identity across the various tiers at Wylfa Newydd to share opportunities arising at the project. The Supply Chain Portal would also be secured via Section 106 obligations entered into between Horizon and the IACC.
- 3.4.24 The portal would replace Horizon's existing supplier registration tool, providing a route for suppliers/potential suppliers to express an interest in the knowledge that Horizon or members of its supply chain would consider all expressions of interest. The procurement platform would provide details of the various types of project activities open for engagement and the minimal expectations that need to be satisfied by an interested supplier (reflecting the 'codes and standards'). Horizon, through the procurement platform, would be able to provide individual feedback to suppliers who have expressed interest.

Workforce Management Strategy

- 3.4.25 The Workforce Management Strategy (Application Reference Number: 8.5) currently defines the key principles set out by Horizon to attract the right workforce resources to construct the Wylfa Newydd Project. These principles would help to deliver the project safely, to budget and on schedule while also reducing the potential effects associated with large numbers of temporary construction workers on the local community. Through this strategy, Horizon is also committed to being sensitive to the needs of the local community and environment and would provide support to stakeholders to avoid foreseeable problems and respond quickly and effectively when they occur and seek to prevent recurrence. As a DCO requirement, Horizon would be required to prepare and implement a Code of Conduct, written in accordance with the principles set out in the Workforce Management Strategy (Application Reference Number: 8.5), which will apply to all personnel engaged in the construction of the Project. Horizon would work with the supply chain, trade unions and contractors to develop and agree an appropriate Code of Conduct. As Horizon would not directly employ all personnel involved in the construction of the Project, compliance with the Code of Conduct would be secured through contractual agreements between Horizon and the third party (and its staff).

- 3.4.26 Specific information in relation to working times; security arrangements; supply-chain requirements; travel and logistics; health and welfare as well as behavioural expectations is outlined in the Wylfa Newydd CoCP (Application Reference Number: 8.6) and the Main Power Station Site sub-CoCP (Application Reference Number:8.7), while the housing requirements and arrangements are detailed in the Workforce Accommodation Strategy (Application Reference Number: 8.4).

Operation

Basis of assessment and assumptions

- 3.4.27 The assessment of the operational phase of the Wylfa Newydd Project is on the basis that the operational workforce is estimated to be 850 personnel during full operation of the Power Station and an additional outage workforce of 1,000 would be required approximately every 18 months for each reactor.
- 3.4.28 It is also based on the assumption that the operation of the Wylfa Newydd Project would be maintained according to regulatory guidelines and legislation along with good-practice and industry standards in relation to health, safety, security and maintenance.

Embedded mitigation

- 3.4.29 As referred to in paragraph 3.4.18, extensive landscaping and planting is proposed through the LHMS (Application Reference Number: 8.16). This planting would be maintained and enhanced during operation of the Power Station to mitigate the visual and noise impacts of the Power Station with respect to neighbouring sensitive receptors as well as enhance the landscape and ecological environment surrounding the Power Station.

Good practice mitigation

Wylfa Newydd Code of Operational Practice (CoOP)

- 3.4.30 The Wylfa Newydd CoOP (Application Reference Number: 8.13) supports the planning and delivery of the Wylfa Newydd Project in a sustainable, efficient and cost-effective manner and covers the operational phase of the permanent elements of the Wylfa Newydd Project (i.e. the elements that would remain after the construction of the Power Station is complete), such as:
- the Power Station, including the main plant, common plant and supporting facilities, buildings, structures and features, together with its permanent landscape setting, car parks and access routes within the Wylfa Newydd Development Area;
 - the permanent marine facilities, comprising of the Cooling Water System, breakwaters and Marine Off-Loading Facility within the Wylfa Newydd Development Area; and
 - the Off-Site Power Station Facilities, comprising of the Alternative Emergency Control Centre (AEEC), Mobile Emergency Equipment Garage (MEEG) and Environmental Survey Laboratory (ESL).

- 3.4.31 The CoOP (Application Reference Number: 8.13) covers the environmental management requirements for the operational phase of the Wylfa Newydd Project, however it does not replicate details or specific requirements under the remit of the Nuclear Site Licence or the site's Environmental Permits.
- 3.4.32 The CoOP (Application Reference Number: 8.13) outlines the responsibilities and obligations of Horizon in relation to the environmental management of the site, including:
- communications and community/stakeholder liaising;
 - general site operations; and
 - the employment of management strategies covering the topic areas of:
 - socio-economics and community (including the provision of a community involvement officer);
 - traffic and transport;
 - public access;
 - air quality;
 - noise and vibration; and
 - waste management as well as other environmental concerns.
- 3.4.33 Included in the CoOP (Application Reference Number: 8.13) are Operational Travel strategies for the Wylfa Newydd Project to ensure that travel by sustainable means of transport is maximised wherever practicable. This would include targets for car sharing and measures to review this if targets are not met. In addition, the operational workforce is expected to work on a shift pattern meaning that traffic flows to site would be staggered and reduced further.
- 3.4.34 The CoOP is a standalone, certified document which would be secured as a required condition of a granted DCO.

Decommissioning

Basis of assessment and assumptions

- 3.4.35 At the time of writing, the timing and nature of decommissioning activities is not known in detail, however it is expected a target timeframe for completion of main decommissioning activities would be within 10 years of the end of power generation and be consistent with traditional de-construction/demolition works. The remainder of decommissioning would be associated with the storage and disposal of spent fuel and radioactive waste and take much longer, conservatively, up to an additional 130 years.
- 3.4.36 It is likely that there would be a reduction in staff numbers prior to the start of decommissioning, as operations would wind down prior to final reactor shutdown. Thus, at the start of decommissioning, it is assumed that there would be fewer than 850 staff employed at the Power Station.

Embedded mitigation

- 3.4.37 There is no embedded mitigation specific to potential socio-economic effects occurring during decommissioning of the Power Station as the timing and nature of decommissioning activities is not known in detail. However, it is anticipated that embedded mitigations similar to the construction phase will be implemented where required.

Good practice mitigation

- 3.4.38 Based on the typical nature of decommissioning works, it is also expected that similar good practice mitigation (as implemented during the construction phase) would also be in place during the decommissioning phase, such as the Wylfa Newydd CoCP (Application Reference Number: 8.6), a Supply Chain Action Plan and a Stakeholder Liaison Strategy.

3.5 Assessment of effects

- 3.5.1 This section presents the findings of the assessment of effects associated with the construction, operation and decommissioning of the WYDA Development.

Construction

Neighbouring communities and local services

- 3.5.2 As stated above in paragraph 3.3.3, Cemaes and Tregele are the nearest communities to the Wylfa Newydd Development Area, bordering the Order Limits in some places. However, all communities within the LAI are considered highly sensitive receptors.

Community amenity

- 3.5.3 Due to the considerable scale and duration of construction activity within the Wylfa Newydd Development Area during the construction phase there is the potential for a significant loss of amenity to the neighbouring communities within the LAI. Amenity relates to the quality of the environment affecting how comfortable or pleasant an area is. A reduction in amenity can occur as a result of effects on air quality, noise, visual changes and traffic. Despite the implementation of appropriate embedded and good practice mitigation, as described between paragraphs 3.4.7 and 3.4.26, the potential adverse effect on community amenity is still anticipated to be significant given the scale of construction works. In addition to this, the landscape mitigation is to be implemented on a phased basis that would only result in appropriate landscape and screening for Cemaes and Tregele (highly sensitive receptors) closer to the final stages of the construction phase.
- 3.5.4 Existing PRoWs within the Wylfa Newydd Development Area are expected to be maintained as far as practicable during this period (ensuring that community severance is reduced). Nevertheless, the significant environmental effects and likely curtailment of some public access routes due to construction as outlined in chapter D4 (Application Reference Number: 6.4.4) are likely to result in a significant loss of amenity. In this context, the

magnitude of the amenity effects is determined to be medium, resulting in the nature of the effect being moderate adverse, and therefore significant.

Schools

- 3.5.5 Ysgol Gynradd Cemaes and Ysgol Gymuned Llanfechell are located at 470m and 1.8km from the Order Limits respectively. Both are highly sensitive receptors as they provide an educational service for children. In line with chapter D5 (Air Quality) (Application Reference Number: 6.4.5), no significant effects from dust are expected close to the Wylfa Newydd Development Area when good practice mitigation, as set out in the Wylfa Newydd CoCP (Application Reference Number: 8.6) and Main Power Station Site sub-CoCP (Application Reference Number: 8.7), is implemented. Chapter D6 (Noise and Vibration) (Application Reference Number: 6.4.6) identifies potential moderate adverse noise effects (weekday daytime noise levels) at Ysgol Gynradd Cemaes during the construction period.
- 3.5.6 Potential effects on the demand for school services as a result of the construction activities within the Wylfa Newydd Development Areas are not considered here and are assessed in chapter C1 (Application Reference Number: 6.3.1).

Healthcare facilities

- 3.5.7 There are three GPs, one dental practice and one pharmacy located within the LAI in the town of Cemaes. Potential effects on the services provided by GP and dental practices are not considered here as they are assessed within the Health Impact Assessment (HIA) Report (Application Reference Number: 8.19). The HIA concludes (Section B.6 of HIA) that effects on these services are not expected to be significant given the fact that similar services are to be provided to workers within the Site Campus.
- 3.5.8 While some overspill of people out from the site is likely to occur to access local services, the potential for increased demand for the pharmacy is considered beneficial to that business and is included under local businesses below.
- 3.5.9 A Community Impact Report (Application Reference Number: 8.23) has been compiled to highlight to local people where these potential effects may occur according to their local communities. The Community Impact Report (Application Reference Number: 8.23) illustrates potential effects in the areas mentioned above but also areas outside of the LAI, including the entire Isle of Anglesey and some parts of the Menai Mainland.

Public safety

- 3.5.10 As detailed in Table D3-3, in the past six years there has been a combined total of 852 crimes reported in the Wards of Llanbadrig and Mechell, which translates to approximately 142 crimes per annum, or 12 reported crimes per month. With a population of fewer than 3,000 in 2011 and rural topography, this can be considered an area where a relatively low level of crime is committed.

- 3.5.11 The housing of construction workers at the Site Campus would result in an increase in the resident population by circa 4,000 persons built up gradually as indicated in figure D3-3. The Site Campus would include services and facilities as detailed in paragraph 3.4.7. It is expected that this would largely remove the requirement to utilise external local services. However, it is recognised that there would still be some use of local services like pubs, restaurants and cafes. Consideration of effects which may arise because of increases in risk taking activities, like drink and drug taking, are considered within the HIA.
- 3.5.12 As per paragraph 3.4.25, the Workforce Management Strategy (Application Reference Number: 8.5) defines the vision to attract the right workforce resources to the Wylfa Newydd Project from the outset of construction through the principles it incorporates. The Workforce Management Strategy (Application Reference Number: 8.5) allows for the effective management and control of the construction workforce with respect to the neighbouring local communities. Through the preparation and implementation of the Code of Conduct (in accordance with the Workforce Management Strategy (Application Reference Number: 8.5), Horizon is committed to minimising the potential impact of the large number of temporary construction workers on the local community through robust and sensitive planning and management arrangements, while also being sensitive to the needs of the local community and environment.
- 3.5.13 A range of security and transport embedded mitigation measures would also be put in place during construction. These include a significant on-site security presence and the use of lighting and barriers which would reduce the areas where any form of crime or antisocial behaviour could occur. In addition, there would be restrictions in the use of individual private transport in favour of the use of shuttle services to manage workforce movements into the neighbouring communities. Furthermore, there would be ongoing communication with the neighbouring towns and villages within the LAI study area to facilitate the integration and interaction of the Wylfa Newydd Project with the local community during the construction phase. It is envisaged that such communication would be undertaken by the Wylfa Newydd Project Liaison Group via the Community Newsletter that is currently circulated at least twice annually and is expected to increase its activity in line with construction activity. These provisions are outlined and secured in the Wylfa Newydd CoCP (Application Reference Number: 8.6) and Main Power Station Site sub-CoCP (Application Reference Number: 8.7).
- 3.5.14 Given the current low levels of crime in the LAI, even a small change is likely to be perceptible within local communities. Any perception of changing crime levels could lead to an increased fear of crime which, in turn, can cause stress and anxiety to the local community.
- 3.5.15 As a result of the range of measures outlined above and the strong likelihood that there would be very limited interaction between the construction workforce and the local community during the construction phase, potential effects on actual crime levels in the LAI are not expected to be significant. Recognising the high sensitivity of the communities within and bordering the LAI and

considering the potential for changes in levels of fear of crime, the potential effects are assessed as minor adverse, and not significant.

- 3.5.16 The potential for changes in overall crime levels across Anglesey to be affected by the construction workforce and any resulting demands they might place on police services is considered at project-wide level and therefore detailed in chapter C1 (Application Reference Number: 6.3.1).

Local businesses

- 3.5.17 The potential significant effects of the Wylfa Newydd Project on businesses and the economy of Anglesey as a whole are assessed at a project-wide level (and detailed in section 1.5 of chapter C1 (Application Reference Number: 6.3.1)). However, works within the Wylfa Newydd Development Area would also contribute directly to effects on businesses located within the LAI through the potential increase in the customer base locally. In accordance with paragraph 3.2.5, effects on local businesses within the LAI are assessed here.
- 3.5.18 Given the considerable number of workers anticipated to reside at the Site Campus during the construction phase, it is likely that businesses located within the LAI could experience some beneficial effects in terms of an increase in business. This is based on an expectation that a small number of workers would use external services located in neighbouring communities in addition to, or rather than, those located at the Site Campus as highlighted in paragraph 3.5.11. This would result in increased spending by workers in local businesses; however, the extent to which this can be assessed at the individual business level is limited. The phased construction of the Site Campus (depending on the accommodation requirements of the construction workforce) and limited transportation to local businesses also makes it difficult to quantify the potential beneficial effect. So, while it is recognised that there is potential for a positive contribution to local businesses in the form of increased demand, this effect is conservatively considered to be minor.
- 3.5.19 The provision of on-site commercial services would allow for the commercial needs of the construction workers to be met while also seeking to avoid adversely affecting access to services for the local population. It also creates opportunities for businesses to provide these services on-site. Procurement of Site Campus services would be completed in line with Horizon's Supply Chain Charter/Supply Chain Action Plan and would be dependent on contractual arrangements yet to be clarified. It is therefore not possible to confirm the potential for businesses local to the site to engage in these opportunities.
- 3.5.20 Tourism businesses, and therefore tourism spend, are not anticipated to be significantly affected as a result of the construction phase. The Visitor Behaviour Survey conducted by Horizon in 2015 found that almost 90% of respondents to the survey indicated that the construction of the new power station would have no impact on their intention to return to Anglesey. One in ten (9%) said it would deter them from returning to the island. This survey is discussed further in chapter C1 (Application Reference Number: 6.3.1) and the accompanying appendix C1-2 (see socio-economic technical appendix, Application Reference Number: 6.3.9).

- 3.5.21 It is recognised that the construction of the Power Station could result in a redistribution of visitors away from the north of the island therefore initially affecting tourism related businesses within the LAI at the commencement of construction. In the main, these businesses are accommodation providers and cafes/bars (see Table D3-4). It is this potential redistribution of visitors, due to adverse changes in environmental conditions which could result in localised adverse effects on these businesses, e.g. reduced local spending. However, as the construction phase becomes more established these initial localised adverse effects on businesses, especially cafes/bars, could be offset by the 'spill-over' effects of the workers (i.e. economic activity of workers outside of the Site Campus) based at the Site Campus. Nevertheless, some initial adverse effects may persist depending on the business nature of some other commercial enterprises, e.g. local catering providers.
- 3.5.22 Local accommodation providers, which make up the majority of tourism businesses within the LAI, are expected to significantly benefit from increased and more consistent demand for bed spaces with respect to the Wylfa Newydd Project overall. This is likely to off-set the potential temporary loss of visitors from the LAI. Outside the LAI and across the north of the island, the likelihood is that the boost in accommodation demand could at least partially off-set the potential losses from reduced visitor numbers locally. The potential effect on local accommodation availability is assessed within a project-wide context and detailed in section 1.5 of chapter C1 (Application Reference Number: 6.3.1).
- 3.5.23 Following the implementation of appropriate embedded and good practice mitigation measures (delivered as part of the assessments of other environmental topic areas outlined in paragraph 3.4.9), and based on the consideration of the changing sources of expenditure (from visitors to workers), the magnitude of the net change overall (as noted above in paragraphs 3.5.17 – 3.5.22) is predicted to be small however it could be medium. In this context, the potential effects are determined to be minor to moderate adverse. Adopting a conservative approach, this is therefore considered significant.
- 3.5.24 The development of the Wylfa Newydd Development Area is not expected to result in any direct effects in terms of severance or access to local businesses in the LAI as these are located outside of the Order Limits.

Land use

- 3.5.25 It is estimated that 248.8ha of BMV land (consisting of grades 2, 3a and 3b) (409ha total land take) would be lost to construction on the Wylfa Newydd Development Area. The total amount of BMV land on Anglesey is 28,676.2ha covering around 40% of the island. Approximately 0.87% of Anglesey's BMV land would therefore be lost through the development of the Wylfa Newydd Development Area. The sensitivity of this land is medium, while the magnitude of the effect is assessed as small. The effect is therefore assessed as minor adverse and not significant.
- 3.5.26 The land within the Wylfa Newydd Development Area where construction would occur is owned or leased by Horizon. This includes the peripheral lands

around the Power Station which are destined for clearance and landscaping/planting.

Operation

Neighbouring communities and local services

- 3.5.27 Cemaes, Treglele and other communities within the LAI may experience changes in local amenity (i.e. changes in air quality, noise and vibration, visual and traffic) from the operation of the Power Station. The movement of materials and the operational workforce to and from site could contribute to such changes in environmental effects. The implementation of staggered shift-work and of Horizon's Operational Travel Strategy, as outlined in the CoOP (Application Reference Number: 8.13), serve to reduce the potential effects associated with people and material movements. No significant residual effects on air quality, noise and vibration, and landscape are identified within the associated assessments.
- 3.5.28 Embedded and good practice mitigation would be implemented to screen the boundary of the site from the local community while also reducing potential changes in environmental effects. It is also expected that there would be ongoing communication between Horizon and neighbouring communities (paragraph 3.4.32) to foster an open and collaborative relationship. This would be used to communicate information regarding the operation of the Power Station of relevance to neighbouring communities when necessary, or resolve any disruption or issues that may arise during its operational lifetime. More information on air quality and noise and vibration can be found in chapter D5 (Application Reference Number: 6.4.5) and chapter D6 (Application Reference Number: 6.4.6), respectively.
- 3.5.29 Therefore, the potential for cumulative effects (from air, noise, vibration, landscape and visual) resulting in significant community amenity effects is expected to be minimal. As such, the magnitude of the potential effect on amenity is considered to be negligible and, therefore, the significance of the effect is determined to be not significant.
- 3.5.30 Effects on local service provision are assessed on a project-wide level and are detailed in chapter C1 (Application Reference Number: 6.3.1), as they are influenced by the distribution of workers and their families. This distribution would not be limited to the LAI, and as such, these effects cannot be assessed at this level.

Public safety

- 3.5.31 As outlined in paragraph 3.5.10 there is a relatively low crime rate in Llanbadrig and Mechell, the wards within the LAI. The Power Station would be surrounded by security fencing and have 24hr security personnel. These measures would seek to ensure site safety and contribute to further enhancements in public safety. With respect to the operational workforce of the Power Station (expected to be approximately 850 personnel), it is not expected that this workforce would create additional or different risks in terms of the public safety within the LAI as the workforce would be made up of

existing and new residents to the area and are expected to reside throughout Anglesey and Gwynedd.

- 3.5.32 Once operational, the Power Station would come under the jurisdiction of the Civil Nuclear Constabulary, the specialist police force with responsibility for providing policing and security at or within close proximity to nuclear sites in the United Kingdom. The Civil Nuclear Constabulary also has responsibility to safeguard nuclear material that is in transit. The Civil Nuclear Constabulary, in addition to the North Wales Police, would be responsible for ensuring public safety for the local population within the LAI, across the whole of Anglesey and wider afield. Consideration of effects on policing requirements associated with the operation of the Power Station are assessed on a project-wide level and detailed in chapter C1 (Application Reference Number: 6.3.1).

Local businesses

- 3.5.33 Increased spending in the LAI and the wider DCCZ is expected during the operational phase of the Power Station as a result of economic activity by the operational workforce within the local economy as shown in figure D3-1 (Application Reference Number: 6.4.101) and figure C1-1 (Application Reference Number: 6.3.32). Effects at a DCCZ level are assessed within chapter C1 (Application Reference Number: 6.3.1) as they are considered project-wide effects. Quantifying the effect at the LAI scale is not possible due to the range of varying factors that influence spending levels and uncertainty over the location of that spending.
- 3.5.34 In addition to potential economic effects, the operational phase of the Power Station is expected to bring potential environmental effects on local businesses matching those outlined in paragraph 3.5.27 for neighbouring communities and local services. As stated previously (paragraph 3.5.29), such potential environmental effects are assessed as negligible and, therefore, effects on amenity are not significant.

Land use

- 3.5.35 As outlined above in paragraph 3.5.25, 409ha of land (248.8ha BMV) would be required during the construction phase however, according to the LHMS much of this area would be landscaped or returned to agricultural use during the operational phase of the Power Station. While the quality or amount of land returned to agricultural use cannot be determined at this time, the fact that 262ha (145ha required for the Power Station and associated facilities) would be returned to economic use or alternatively landscaped can be determined as a beneficial effect, albeit of a small magnitude. This would not be significant in comparison to the wider amount of BMV land on Anglesey.

Decommissioning

Neighbouring communities and local services

- 3.5.36 The effects of the decommissioning phase on the amenity of neighbouring communities would likely be similar to those outlined during the operation phase above, until the point in decommissioning when building removal is

undertaken. At that point, effects may be similar in nature to those of construction (paragraphs 3.5.3). If it is assumed that the baseline environment at that point is the same as today and that disruption from building removal is short term, the magnitude of amenity effects would be small. The effects would be assessed as minor adverse, which is determined as not significant.

- 3.5.37 Along with reduced activity levels during decommissioning, the associated workforce is expected to be substantially less than for the construction phase. Given the reduced size of the workforce required for the decommissioning phase, the reinstatement of the Site Campus or the Park and Ride is not expected. Without this reinstatement of the Site Campus, the decommissioning workforce would be required to utilise community and healthcare services/facilities on Anglesey, either located close to the Wylfa Newydd Development Area or where they reside during this period. Effects on community facilities during decommissioning are assessed as project-wide effects and are reported within chapter C1 (Application Reference Number: 6.3.1). Effects on healthcare services are assessed within the HIA Report (Application Reference Number: 8.19).
- 3.5.38 As with the construction phase, no significant direct effects on either Cemaes or Tregale in terms of severance or access have been identified during the decommissioning of the Power Station as all works would take place within a defined site boundary.

Public safety

- 3.5.39 No significant direct effects on public safety within the LAI have been identified during the decommissioning phase of the Power Station as the nature of the works and scale of the workforce required would be reduced in comparison to the construction phase, while similar security provisions to those made during the construction phase would be in place. Policing requirements are considered within the assessment of public service requirement at a project-wide level in chapter C1 (Application Reference Number: 6.3.1).

Local businesses

- 3.5.40 The environmental effects of the decommissioning phase on local businesses are expected to be similar to those outlined during construction (paragraph 3.5.18), but to a lesser extent as the size of the decommissioning workforce is expected to be relatively small in comparison to the construction workforce. As a result of the high sensitivity of commercial receptors and the fact the magnitude of change is small, the effect is assessed as minor adverse which is deemed not significant.
- 3.5.41 The decommissioning of the Power Station is not expected to have any significant direct effects in terms of amenity, severance, or access, on local businesses located within the LAI.
- 3.5.42 Decommissioning is likely to result in a reduction in the workforce employed at the Power Station in comparison to the operational phase. Nevertheless, money is likely to be spent in the LAI and wider DCCZ because of economic activity derived from the decommissioning workforce. The sensitivity of the local economy is high, while the magnitude of the effect on economic activity

within the LAI and DCCZ is assessed to be small. The effect is assessed as minor beneficial and, therefore, considered not significant.

Land use

- 3.5.43 As outlined in paragraph 3.5.25 the assessment of construction effects identified the permanent loss of approximately 323ha of agricultural land, of which 248.8ha is classified as BMV. This permanent construction effect was assessed as minor adverse and therefore not significant. While decommissioning may result in some of that land being returned to productive use in the future, it is not possible to confirm that at this stage. It is, therefore, assumed that the effects outlined for construction would continue throughout and beyond the decommissioning stage.

Transboundary effects

- 3.5.44 No socio-economic transboundary effects (the occurrence of potential effects across national boundaries) are expected during the construction, operation, or decommissioning of the Wylfa Newydd Development Area as the nature of potential effects are not expected to transcend national boundaries.

3.6 Additional mitigation

- 3.6.1 In accordance with chapter B1 (introduction to the assessment process) (Application Reference Number: 6.2.1), embedded and good practice mitigation measures relevant to socio-economics were taken into account when determining the 'pre-mitigation' significance of effects. These are detailed in the design basis and activities section of this chapter.
- 3.6.2 Additional mitigation measures would be implemented to address potential significant effects identified in the assessment of effects section. These additional mitigation measures are summarised in Table D3-6, paragraph 3.6.5 and paragraph 3.6.6 for construction, operation and decommissioning respectively.
- 3.6.3 As outlined in section 3.5, significant socio-economic effects are expected to occur to neighbouring communities and local services and local businesses due to potential environmental effects, traffic related disruption and loss of amenity because of the construction within the Wylfa Newydd Development Area. While embedded and good practice mitigation is already proposed to reduce the significance of these effects, Horizon is proposing the establishment of a 'Community Impact Fund' and 'Tourism Fund' to further mitigate specific potential effects on communities and tourism associated with the construction within the Wylfa Newydd Development Areas which are unforeseen. This additional mitigation is summarised in Table D3-6 and would be secured through Section 106 agreements. The Community Impact Fund and Tourism Fund are also key aspects of mitigation proposed in chapter C1 (Application Reference Number: 6.3.1) where further details in relation to both are outlined (see C1, section 1.6 (Additional mitigation)). Its inclusion here is to provide specific focus to effects within the LAI of the Wylfa Newydd Development Area.

- 3.6.4 As there are no significant effects expected or reported within the Operational or Decommissioning Phases of the Wylfa Newydd Development Area, no additional mitigation measures are proposed.

Construction

Table D3-6 Additional mitigation measures - construction

Additional mitigation measures	Objective	Achievement criteria and reporting requirements
Community Impact Fund (secured through planning/Section 106 Obligations)	To provide access to funding for localised issues resulting from the Wylfa Newydd Project such as those associated with schools, leisure facilities, recreational resources and open spaces, along with other unforeseen related effects.	To provide funding for localised issues, such as schools and leisure facilities. It would also provide access to funding to address unforeseen community effects. Funding would be released subject to the satisfaction of a number of conditions, yet to be agreed.
Tourism Fund (secured through planning/Section 106 Obligations)	To provide funding to identify (via monitoring) and address adverse effects on the sector, should they arise. These could include a wide range of activities depending on how effects manifest.	This fund would be available to address adverse effects if they arose. The monitoring would pick up changes which would trigger release of funding for mitigation. Decisions would be made on funding release by the Accommodation and Tourism Services sub-group, overseen by a programme board. Funding would initially be provided as part of the SPC TCPA application and would be available from mid-2018.

Operation

- 3.6.5 No significant effects are expected as a result of the operational phase of the Power Station with respect to the socio-economic issues set out in this chapter and, as a result, no additional mitigation is required.

Decommissioning

- 3.6.6 No significant effects are expected as a result of the decommissioning phase of the Power Station with respect to the socio-economic issues set out in this chapter and, as a result, no additional mitigation is required.

3.7 Residual effects

- 3.7.1 This section describes the residual socio-economic effects having taken into account the embedded, good practice and additional mitigation described above. Table D3-7 provides a summary of significant residual effects identified either prior to or post application of additional mitigation for the construction phase.
- 3.7.2 No significant adverse effects were identified for the operational and decommissioning phases.
- 3.7.3 Additionally, all effects of minor significance or greater identified in the assessment of effects section are summarised in appendix I3-1 (master residual effects table, Application Reference Number: 6.9.8).

Table D3-7 Summary of residual effects

Receptor (or group of receptors)	Value of receptor(s)	Description of potential effect	Nature of effect	Potential magnitude of change	Potential significance of effect	Additional mitigation	Post-mitigation magnitude of change	Significance of residual effect
Construction								
Community Amenity	High	Potentially significant adverse effects on community amenity as a consequence of environmental effects (air quality; noise and vibration; landscape and traffic) resulting from construction activity.	Adverse, medium term	Medium	Moderate adverse	Community Impact Fund	Small	Moderate adverse, significant

Receptor (or group of receptors)	Value of receptor(s)	Description of potential effect	Nature of effect	Potential magnitude of change	Potential significance of effect	Additional mitigation	Post-mitigation magnitude of change	Significance of residual effect
Local businesses (including tourism receptors)	High	Potential adverse effects resulting from changing sources and extent of expenditure in businesses located within the LAI.	Adverse, medium term	Small to Medium	Minor to Moderate adverse	Community Impact Fund Tourism Fund	Small	Minor-moderate adverse, significant

3.1 References

Table D3-8 Schedule of references

ID	Reference
RD1	Nomis, 2013. 2011. <i>Census Data for England and Wales</i> . [Online]. [Accessed: 1 August 2016]. Available from: https://www.Nomisweb.co.uk/census/2011 .
RD2	Office of National Statistics. 2016. <i>Crime in England and Wales: Year ending December 2016</i> . [Online] [Accessed: 20 June 2017]. Available from: https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/bulletins/crimeinenglandandwales/yearendingdec2016
RD3	Home Office. 2015. <i>Llanbadrig and Mechell Crime Map</i> [Online]. [Accessed: 1 August 2016] Available from: https://www.police.uk/north-wales/YMW10/ .
RD4	Office of National Statistics. 2015. <i>Gross Value Added by Electoral Ward</i> . [Online] [Accessed: 1 May 2017]. Available from: https://www.ons.gov.uk/economy/grossvalueaddedgva/datalist?filter=datasets
RD5	Experian. 2017. <i>B2b Marketing (Prospector) Database</i> [Online]. [Accessed: September 2017] Available from: https://www.b2bprospector.co.uk/Site/Default.aspx
RD6	Reading Agricultural Consultants. 2016. <i>Agricultural Land Classification and Soil Resources</i> . Reading: Reading Agricultural Consultants

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