

Ynys Môn

THE ISLE OF

Anglesey

Wylfa Newydd

Local Impact Report

Chapter 16: Cumulative Impact
Assessment

December 2018

PINS Ref: EN010007



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1.0 Cumulative Impact Assessment

1.1 Context and Approach

- 1.1.1 Wylfa Newydd is the largest development project to have ever been proposed within Anglesey and given Horizon's current delivery programme it would also represent the largest construction project in Wales and one of the largest currently anticipated to occur in the UK over comparable timescales. The Wylfa Newydd Development Area (WNDA), which incorporates the proposed power station, lies within North Anglesey which includes communities consisting of small towns, villages and hamlets located within a predominantly rural setting that includes a diverse range of highly valued environmental assets. The population of North Anglesey is aged relative to the rest of the island and the proportion of Welsh speakers tends to be highest in the western and central parts of the area. IACC recognises that the communities closest to the WNDA are most likely to experience significant adverse effects arising from the Wylfa Newydd Project (WNP) whilst having limited capacity to accommodate such effects. In pursuing its duties under the Well-being of Future Generations Act (WBFGA) the Council is required to demonstrate how it is meeting its Well-being objectives in a sustainable manner which underpins its approach to this Assessment safeguarding the quality of life of existing residents and promoting the well-being of future generations..
- 1.1.2 IACC has prepared a Proximity Principles Paper for consideration by PINS during the Examination process to expand upon its position that those communities likely to sustain the greatest magnitude of adverse effects receive the greatest attention in terms of mitigation and compensation. Specifically, the paper recognises that the spatial focus of significant adverse environmental, social and economic effects arising from the WNP are predicted to be within the North Anglesey area with particular emphasis upon receptors in the locality of the WNDA.
- 1.1.3 As a direct result of Wylfa Newydd, National Grid is proposing the North Wales Connection Project (NWCP). This project, which is also the subject of a current DCO application, proposes the construction and operation of a 440kV overhead line running from the proposed power station site, across neighbouring communities and then traversing Anglesey as a whole. Direct impacts arising from this project, in combination with Wylfa Newydd, are likely to be experienced to a greater degree by the communities of North Anglesey than by other communities on the island. It is the communities of Cemaes, Tregele and Llanfechell which are closest to the proposed power station site and which will be subject to the highest degree of cumulative effects arising from the two projects.
- 1.1.4 In addition to the Proximity Principles Paper referred to above and in recognition of the combined effects arising from both the Wylfa Newydd and North Wales Connection projects, IACC prepared a specific North Anglesey section to its Wylfa Newydd Supplementary Planning Guidance (SPG 2018) document, accompanied by a North Anglesey Topic Paper. The Council has also undertaken a specific North Anglesey community- based assessment of

the WNP relative to the goals and objectives of the WBFGA and has prepared a separate assessment of the North Wales Connection project. In each document, the potential for cumulative effects upon community wellbeing has been recognised and additional measures to protect well-being have been identified.

- 1.1.5 Subject to approval of the Development Consent Order, the WNP could be transformational with respect to the benefits that could accrue to the economy of Anglesey and the wider North Wales Region. However, Horizon and IACC recognise that the WNP will have significant adverse effects. These are likely to include effects arising from noise and vibration, air quality, landscape and visual as well as effects upon the Welsh language, housing and tourism, education, the historic and natural environment. Some of these effects will combine to become cumulatively adverse giving rise to significant effects upon receptors such as residential amenity and community cohesion.

2.0 CIA methodology and Reasonable Foreseeable Future Projects

- 2.1.1 IACC has liaised with Horizon with respect to the scope of the Cumulative Impact Assessment (CIA) for the WNP DCO application. The dialogue between the two parties has included:

- a) Provision by Horizon to IACC of a “long list” of Reasonable Foreseeable Future Projects (RFFPs) that they identified for potential inclusion in the CIA and a subsequent “short list” of projects which Horizon has used to justify the scoping in or out of projects for the CIA based upon a range of criteria including the potential for temporal and/or spatial overlap with the WNP, the physical scale of the projects, the likely intensity of development activity and the availability of reliable information with respect to predicted changes to baseline conditions and related environmental effects.
- b) IACC’s response to Horizon’s proposals with respect to RFFPs has been provided at various times during the pre-application period but key responses were made in December 2017 and January 2018.

- 2.1.2 IACC’s responses as identified above have shown that the Council agreed with a substantial proportion of the RFFPs proposed by Horizon to be included within the scope of the CIA. However, IACC identified some notable exceptions as follows:

- Project AN12 – West Anglesey Demonstration Zone (Mentor Mon)

- 2.1.3 IACC identified to Horizon in December 2017 that this demonstration tidal energy project was actively progressing via Morlais Tidal Energy with project management by Mentor Mon and that the latter had advertised for a number of posts for key personnel to take the project forward. IACC recommended that Horizon contact Mentor Mon to obtain relevant information such that it could be included in the CIA.

- Project AN17 – House building programme (IACC)

- 2.1.4 IACC stated to Horizon that the Council had secured funding to bring forward the construction of 400 units over the period 2018-2022. IACC requested that

Horizon should include the provision of this significant number of new dwellings within the scope of the CIA.

- Project AN22 – Third bridge across the Menai Straits (Welsh Government)
- 2.1.5 IACC requested (via email to Sarah Price (on behalf of Horizon) dated 31 January 2018) that this key new infrastructure project should be scoped in to the CIA as, at that time, the consultation documentation published by the Welsh Government provided high level environmental information to support the consideration of four options which were the subject of the consultation held between December 2017 and March 2018. The published timeframe for the third crossing project is such that temporal overlap with the WNP is expected to occur with a construction start in 2020/21 and completion in 2022/23.
- 2.1.6 IACC considers it reasonable that Horizon could have applied expert professional judgement to assess the potential environmental effects of a third crossing within the CIA context prior to DCO submission. Given that a preferred option has now been identified and supported by additional environmental information, Horizon should be in the position to undertake at least a qualitative assessment of potential inter-project cumulative effects which are of particular relevance with respect to journey time delay and congestion within and in the environs of Anglesey extending out to key highway routes that provide access to the existing and proposed crossing.
- Project CN02 – Improvements to Junctions 15 and 16 of the A55.
- 2.1.7 IACC identified to Horizon that the Welsh Government has confirmed a single option strategy for this scheme and that a contractor has been appointed to progress and develop the delivery of this option through to the construction phase of the project. A public inquiry is anticipated in Summer/Autumn 2019 with construction planned to occur between Autumn 2020 and Autumn 2022. IACC has noted to Horizon the potential for significant effects on travel times related to the 90 minute catchment applied for the WNP.
- 2.1.8 Further to the above, IACC has provided additional advice on the scope of the RFFPs that should be included within the scope of the CIA via email to Horizon dated 31st January 2018 as follows:
- Stena Ports Ltd and IACC - Holyhead Outer Harbour Breakwater Restoration/Improvements Scheme – *IACC recommends that Horizon should make enquiries with the Port Authority to gain confirmation as to the environmental information that is available.*
 - Joint Local Development Plan Allocations - IACC referred Horizon to The Planning Inspectorate's Advice Note 17 which states that sites identified in the Joint Local Development Plan are recognised as Tier 3 'other developments'. IACC provided their opinion to Horizon that the LDP allocations should be included in the list of Reasonably Foreseeable Future Projects (RFFP) and thus included in the cumulative impact assessment.
- 2.1.9 Horizon confirmed (in an email from Sarah Price addressed to Dylan Williams of IACC dated 6th February 2018) that the request made by IACC for the

inclusion of the RFFPs identified above was not possible due to the need to finalise the DCO documentation as a whole.

2.1.10 IACC's guidance document with respect to CIA approach and methodology (IACC, 2014) has been shared with Horizon at an early stage of the pre-application process. The document states that an appropriate cut-off time for consideration of RFFPs within the CIA process would be four months prior to the submission of the DCO application. Horizon submitted the WNP DCO application on 1st June 2018 which should have allowed sufficient time between December 2017/January 2018 and June 2018 for Horizon to have undertaken at least a high level qualitative appraisal of the projects identified above such that they could have been given appropriate consideration within the scope of the CIA.

2.1.11 The most notable of the RFFPs identified by Horizon is the North Wales Connection Project (NWCP) which would be delivered by National Grid and which will be subject to approval under a Development Consent Order. The DCO application for this development was received for registration by the Planning Inspectorate on 7th September 2018. A key purpose of the NWCP would be to allow transmission of power into the national grid from the WNP Power Station and hence the cumulative environmental effects arising from the two mutually related projects with respect to temporal and spatial overlap is a key concern to IACC. IACC expects that Horizon and National Grid should have engaged extensively during the pre-application stage for the WNP DCO to ensure that the potential for cumulative environmental effects to arise from both projects were mutually understood between the two project promoters. For specific topics where such effects could reasonably be expected to occur (such as effects upon landscape and visual amenity) IACC expects that the promoters should have worked together to ensure consistency of approach with respect to baseline characterisation and receptor identification in order to enable the parallel EIA processes and assessment outcomes to be as coherent and transparent as possible with respect to effects on key receptors. From a review of the Wylfa Newydd and NWCP DCO application documents it would appear that this approach has not been followed. IACC has therefore had to make assumptions with regard to the potential for certain sources of cumulative effects and the approach taken is set out in more detail below.

2.1.12 Additional dialogue with other project promoters such as Stena Ports would also have delivered benefit to the CIA process.

3.0 Health Impact Assessment

3.1.1 In addition to the CIA presented within the ES for the WNP, the Health Impact Assessment (HIA) submitted with the DCO application presents Horizon's view with respect to the overall assessment of the WNP and other RFFPs on the key indicators of health for populations and communities within the defined Zones of Influence as identified by Horizon. In accordance with standard practice, the HIA makes substantial use of the outcomes of the Horizon's EIA technical topic assessments, the Welsh Language Impact

Assessment and the Equality Impact Assessment to inform the overarching assessment of health impacts.

- 3.1.2 The HIA includes substantial reference to a consideration of effects upon health and wellbeing. Whilst health represents one of the seven goals of the WBFGA, it is IACC's opinion that the HIA should not be seen as a proxy for the assessment of the WNP against the WBFGA in its entirety. Taken together, it is the seven goals of the WBFGA which embody the overarching principle of sustainable development. IACC has undertaken a full Well-being assessment of the project which is submitted with this LIR.

3.2 Evidence Base and Impacts

- 3.2.1 The following topic sections summarise some of the key potential effects arising from the project which are set out in detail within the specific topic-based chapters of this LIR. They are highlighted within this chapter in order to demonstrate the magnitude of change that is anticipated to occur across a range of socio-economic and environmental topics which have the potential to principally affect the communities of North Anglesey.

Population

- 3.2.2 The North Wales Region has a current resident population of close to 690,000 which is expected to increase to 720,000 by 2039. Within most of the individual council areas of North Wales the population is either expected to grow over the period 2014 to 2039 (North Wales Social Care and Well-Being Services Improvement Collaborative – Summary Report, April 2017). Notably the population of Anglesey as a whole is projected to fall over the period between the 2014 baseline (69,750 persons) and 2033 (69,231).
- 3.2.3 North Anglesey has a higher population density when compared to Anglesey as a whole (2.2 and 1 person per hectare respectively)¹ and population growth in North Anglesey has been approximately twice the rate for the Island between 2001 and 2011. In the immediate locality of the WNDA, the combined population of the defined communities of Tregele and Cemaes was 1357 persons in 2011²).
- 3.2.4 Notably the population of North Anglesey is relatively aged with the 45 to 74 year age group comprising 43.4% of the population and a third of householders made up by pensioners. However, the proportion of persons aged 65 or over is due to increase from nearly 17,000 in 2014 to circa 22,000 in 2033. It can reasonably be expected that this will lead to an increase in the number of Anglesey residents (as a proportion of the total population) with increased health and welfare vulnerability, substantial health care needs and hence additional reliance upon local service provision.

¹ Wylfa Newydd Supplementary Planning Guidance (May 2018) Topic Paper 11: North Anglesey, para 3.2.2. ([Link](#))

² Wylfa Newydd Supplementary Planning Guidance (May 2018) page 154 ([Link](#))

Welsh Language

- 3.2.5 Within North Anglesey the proportion of Welsh speakers varies spatially but falls within the range of 44-71% of residents (North Anglesey SPG). Thresholds of over 70% and over 50% of Welsh speakers reflect key dimensions of linguistic vitality in a geographical area and there are two North Anglesey wards (Llanbadrig and Moelfre) where Horizon's Welsh Language Impact Assessment estimates that use of the Welsh language will fall below 50% as a result of Wylfa Newydd.
- 3.2.6 The rationale for a predicted reduction in Welsh language speakers results from the in-migration by a proportion of the 7,000 non-home based workers that will be employed for the WNP at peak construction. Horizon estimates that a large proportion (more than 80%) of this workforce group are anticipated to be non-Welsh speakers. Cumulative effects upon the proportion of Welsh language speakers may also arise should members of the existing communities be displaced by workers seeking accommodation, or should they choose to move away from their community as a result of a combination of environmental and social impacts. The existing resident Welsh speaking population could be affected by the incoming workforce with respect the use of the Welsh language. This is particularly the case with respect to the integration of children of incoming WNP workers into the education system and more widely with respect to integration into the existing fabric of local communities.

Service centres

- 3.2.7 Within North Anglesey, the village of Cemaes lies within the ward of Llanbadrig and is defined as a Local Service Centre that provides local shops, pubs, a primary school, GP surgery and a village hall that are used by residents of the village and occupiers of the dispersed properties in the surrounding rural area. The small communities in the immediate vicinity of the WNDA have limited capacity to accommodate the service needs of the incoming WNP workforce (campus or other local residence base) who could reasonably be expected to utilise the most convenient offerings with respect to shops, pubs and leisure/amenity facilities outside their working hours.

Employment

- 3.2.8 Unemployment rates in North Anglesey are higher than for Anglesey and the rest of Wales. The self-employment rate is high (22% of economically active persons) and there is a greater prevalence of skilled workers (Occupation Groups 4 and 5) but a lack of managerial skills (Groups 1 to 3). This baseline situation indicates that there may be a significant pool of local labour resource that could be engaged in supporting construction phase activities for the WNP either through direct employment or through the wider local supply chain, cumulative opportunities to enhance the proportion of residents economically active would be further enhanced by the cumulative application of incentives for local supply chain engagement, skills training and educational support.

Housing

- 3.2.9 The housing stock in Cemaes (i.e. the size of individual properties) is relatively small when compared to the rest of North Anglesey and the Island as a whole and houses are less likely to be owner occupied with a smaller average household size (2.08 persons per household). Generally within North Anglesey under occupancy rates are higher than elsewhere in Anglesey and Wales as a whole. As at 2016, County Council records indicate that there were 165 empty residential properties in North Anglesey with the highest number (28) present in the Llanbadrig ward. This indicates that there may be some unoccupied property that could be brought into beneficial use for the resident population and which could provide temporary or permanent accommodation for the Wylfa Newydd workforce both during the construction and operational phases of the project.
- 3.2.10 With respect to affordability, median household incomes across North Anglesey wards rarely exceed £25,000 which significantly restricts the ability of existing residents to afford larger two, three and four bedroom properties and emphasises the need for availability of low cost affordable housing and competitive rental sector stock. This indicates that the local resident population within North Anglesey could be under increased pressure with respect to their ability to afford local housing in the likely event that there is increased demand as a result of the influx of workers seeking rental and/or purchase of property.

Tourism

- 3.2.11 Cemaes and other communities in North Anglesey are visited by a significant number of tourists particularly during the summer months to source goods and services. It follows that degradation of the baseline outstanding environmental quality of the North Anglesey area together with reduced accessibility resulting from increased traffic could act to reduce the attraction of the area as a tourist destination particularly during the construction of the power station and on-line highway works.

Visual amenity

- 3.2.12 The residents of Cemaes have a range of views across the proposed Main Power Station Site with property occupiers in the more elevated parts of the village and those in the settlement's western edge and alongside the A5025 having extensive views to the distant sea. The Main Power Station Site occupies over 180 degrees of some residents in Tregle. Notably, Horizon has not considered views experienced by occupiers of the numerous residential properties which are located outside the boundaries of communities.
- 3.2.13 IACC considers that significant negative impacts will be experienced by people within all of Horizon's six main receptor groups of visual receptors even after the implementation of Horizon's additional mitigation measures. IACC has particular concern over the visual impact to residents of Tregle,

Cemaes and Llanfairyrghornwy. IACC is also concerned that people using the sections of the existing Wales Coast Path and Copper Trail that pass through the study area will also experience significant negative impacts and that such impacts will also apply to users of the temporarily and permanently diverted sections. Furthermore, IACC considers that adverse (negative) significant visual effects will also be experienced by users of high proportions of the local PRow, local road networks and within some Open Space Areas during the WNP construction and operation periods even after implementation of a range of additional mitigation measures.

- 3.2.15 IACC considers that the visual impact of the WNP has been underestimated with respect to the number of residential receptors that may be affected and that the mitigation measures proposed by Horizon are insufficient. Existing residents will be impacted directly by views of the development and their wellbeing will also be affected by degradation to the quality of views that can currently be experienced along PRows, local roads and some Open Space Areas. The degradation of these public assets may also reduce the attraction of North Anglesey as a tourist destination.

Noise

- 3.2.16 The construction assessment is described in the ES section and in several other associated documents. The assessment for some activities are less detailed than for others, for example, blasting operations are covered by a statement saying that they will be undertaken to comply with the agreed criteria and will therefore be not significant. There is no blasting assessment to back this up.
- 3.2.17 Section 6.5 of the assessment discusses the number of properties subject to various increases in noise levels associated with the construction works, but no indication is given as to exactly where these properties are which would have been useful. Only an indication of the numbers of properties in each receptor group is given in the tables.
- 3.2.18 Transformer noise is assessed as not significant as it is assumed that sound from transformers will be no more than 25 dB LAeq, T at receptors. This includes a statement to the effect that transformers located east of the development would need 20dB(A) of mitigation to meet the 25 dB LAeq, T criterion at the nearest properties along the A5025 at the north western edge of Tregele. An example enclosure is considered which gives a 40 dB transmission loss but it is not clear whether this has been included in the embedded/additional mitigation measures.
- 3.2.19 It would appear that an assessment of $L_{AF, max}$ levels in terms of sleep disturbance (based on the applicable WHO Guidance at the time of preparation of the ES) from, for example, any commissioning or maintenance testing that may occur during the night-time period (23:00 – 07:00 hrs) has not been undertaken. Such an assessment would also normally be undertaken for vehicles entering and leaving car parks including the potential impacts from 'door slams' and engine starts/stops (including any revving). Whilst it is acknowledged that the latter can be mitigated by good management practices it would be usual to include some statement within an ES considering the

potential $L_{AF, max}$ impacts from such sources. It should be noted that this type of assessment was undertaken for road traffic on public roads.

- 3.2.20 The observations presented above indicate that, for the closest sensitive receptors, the severity of noise effects may have been under-estimated. Furthermore, a clear understanding of the spatial distribution of the properties which are predicted to experience significant adverse effects is not achievable given the information presented in the ES.

Broadband

- 3.2.21 North Anglesey currently experiences substantially lower broadband speeds than the rest of Anglesey. The large influx of WNP workers can be expected to place additional demand on the efficiency of the existing limited broadband provision.

Emergency services

- 3.2.22 IACC understands that North Wales Police has expressed concern over the potential impact of the WNP upon its regular operations and has also raised the potential for cumulative effects with the North Wales Connection Project [RR-124 and REP1-096]. Similar concerns have been raised by the North Wales Fire and Rescue Service [RR-095] and the Welsh Ambulance Service NHS Trust [RR-090]. IACC shares the concern expressed by these services that the effects of Wylfa Newydd, and additionally the North Wales Connection, may place a strain on their resources with the consequential inability to respond in the way they would wish to support the needs and requirements of existing local communities.

Cumulative effects issues

- 3.2.23 IACC recognises that the physical scale and temporal duration of influence of individual elements of the Wylfa Newydd Project upon the baseline conditions will be variable. IACC acknowledges that development related activities and the introduction of new physical elements (such as temporary and permanent buildings and temporary and permanent spoil mounds) within and in the environs of the WNDA (which includes the Power Station) and along the existing and proposed A5025 road corridor are the most likely sources of significant cumulative effects on receptors. These activities and physical elements will result in substantial change to baseline conditions with respect to noise, air quality, landscape, visual amenity, ecology, cultural heritage and recreational amenity which are most likely to directly affect residents of Tregele, Cemaes and Llanfechell and of dispersed residential properties in the vicinity of the WNDA. These residents, together with those in the wider communities of North Anglesey, are also likely to be affected by changing socio-economic conditions as result of the incoming workforce and the related potential demands for services and infrastructure, the arrival of a predominantly non-Welsh speaking persons into existing communities and the potential effects upon community well-being that may result.

- 3.2.24 Horizon has adopted a receptor based approach to the assessment of cumulative effects arising from the Wylfa Newydd Project and from RFFPs that may overlap with Wylfa Newydd on a temporal and/or spatial basis. This receptor based approach does not fully align with guidance presented in PINS Advice Note 17 which focusses upon Zones of Influence mapping. However, it is understood that Horizon has discussed the adopted receptor-based methodology with PINS, although it is not clear to IACC whether PINS has actually accepted the approach (paragraph 2.2.2 Document Ref 6.9.2 ES Volume I – Cumulative effects I2 – Scope).
- 3.2.25 Horizon has provided intra-project and inter-project cumulative effects assessments for each of the EIA technical topics (see Horizon document references 6.9.4 ES Volume I - Cumulative effects I4 Intra-project cumulative effects and 6.9.5 ES Volume I - Cumulative effects I5 -Inter-project cumulative effects). Matrices are presented (see Horizon document reference 6.9.6 ES Volume I - Cumulative effects App I2-1 - Matrix of receptors affected by Wylfa Newydd Project and which developments affect them and 6.9.7 ES Volume I - Cumulative effects App I2-2 - Matrix of receptors affected by Wylfa Newydd Project and which short-listed projects could affect them) which identify intra-project and inter-project interactions for receptors that could be subject to cumulative effects.
- 3.2.26 IACC considers that the matrices identify, with reasonable accuracy, the potential interactions which could result in cumulative effects upon receptors but this of limited value in terms of achieving a clear spatial understanding of the distribution of specific receptors and/or clusters of receptors which may be subject to cumulative effects. Visual presentation with respect to individual receptors or groups of closely clustered receptors would have significantly enhanced transparent interpretation of the CIA findings and conclusions, the specific relevance of assessment outcomes and precision with respect to targeting of specific mitigation and/or compensation needs. As a result of this information gap, IACC has reviewed the outputs of the CIAs for the WNP and the NWCP in order to focus upon the key environmental topics that have given rise to “moderate” or “major” residual adverse impacts as defined by Horizon and/or National Grid. These impact descriptors have been adopted by IACC to identify receptors that could be subject to significant residual effects from either or both of the proposed developments. IACC acknowledges that impact ratings as applied by Horizon and National Grid may not be aligned. However, for the purpose of the illustrative figures referred to below, a residual impact rating of “moderate” or “major “ has been assumed to be significant.
- 3.2.27 IACC has undertaken this exercise to better understand the potential cumulative impacts upon residential amenity. As such it has considered the assessment conclusions set out in both Environmental Statements for the topics of noise and visual effects. Air quality should as a minimum also be included within a combined assessment but the information presented in the Wylfa Newydd ES makes any spatial mapping at an individual property level imprecise and insufficiently robust to be useful to the exercise. IACC has therefore chosen to identify the modelled air quality receptor locations only.

- 3.2.28 The findings of the IACC review are presented in Figures 1-5 (Annex 16A – 16E).
- 3.2.29 Figure 1 illustrates the distribution of individual properties which have been identified via the Ordnance Survey (OS) Address Base Data and which lie within the potential zones of influence of the NWDA and the NWCP projects as IACC understands them from the published DCO documentation. There are 1,304 individual properties identified of which the majority are residential properties. The OS data set includes other property usage including, for example, pubs and restaurants, service stations, GP surgeries etc. Some of these properties may have a residential component and/or occupiers which will spend a substantial part of their day at that location. The total number of properties included within Horizon's noise and vibration assessment is similar at 1,283 of which 1,221 are identified as residential properties. Differences in the total number of properties identified by IACC and Horizon may in part be due to interpretation of available data which reflects property locations and existing usage.
- 3.2.30 Figure 2 presents the spatial distribution of receptors that could experience **“significant” (Negative in the terminology of this LIR)** impacts with respect to noise and visual construction issues. With respect to noise, the receptors which have been identified by IACC are those which may experience impacts before mitigation is applied. This figure also illustrates where increased pollutant concentrations are anticipated to occur relative to background concentrations relating to the WNP only. It should be noted that air quality has been included as a relevant CIA topic given that there are no absolute thresholds which are recognised as being fully protective of human health. This position is recognised in Horizon's HIA.
- 3.2.31 Figure 3 presents the spatial distribution of receptors that could experience **“significant” (Negative in the terminology of this LIR)** impacts as defined by Horizon and National Grid for WNP and NWCP projects during the construction phases of both projects.
- 3.2.32 Figures 4 and 5 provide similar information to that described above for the operational phases of both projects.
- 3.2.33 The figures indicate that a large proportion of receptors within the environs of the WNDAs (as described by the illustrative figures) will experience long-term negative (significant adverse) impacts with respect to noise and visual issues together with a degree of deterioration in air quality relative to baseline conditions without the influence of the WNP and NWCP. The number of properties that IACC has estimated associated with the illustrative figures are provided within the following table.

Receptors	Estimated Number of Properties
Number of assumed residential properties within the envelope of Figures 1 – 5 using OS Data Base information.	1304
Number of properties subject to significant impacts for noise related to WNP construction phase (before mitigation). IACC has assumed that all properties within Horizon's property groupings will to be subject to Horizon's impact ratings as a worst case. Also presented in the adjacent column is the number of properties taken from the Horizon ES (Table D6-35 of " <i>Wylfa Newydd Project 6.4.6 ES Volume D – WNDA development D6 – Noise and Vibration</i> ") which are predicted to experience major and moderate residual impacts after mitigation.	1304 321 Major residual 862 Moderate residual
Number of properties subject to significant impacts for noise related to WNP operational phase.	None
Number of properties subject to residual significant impacts for visual related to WNP construction phase.	703 Major 312 Moderate 1015 total
Number of properties subject to significant impacts for visual related to WNP operational phase Year 1.	74 Major 941 Moderate 1015 total
Number of properties subject to significant impacts for visual related to WNP operational phase Year 15.	112 Moderate
Number of properties subject to significant impacts for noise related to the NWCP construction phase.	5
Number of properties subject to significant impacts for noise related to the NWCP operational phase.	2
Number of properties subject to significant impacts for visual related to NWCP construction phase.	6
Number of properties subject to significant impacts for visual related to NWCP operational phase.	1 Major 52 Moderate 53 total
Total number of properties affected by significant impacts related to both projects. Construction.	1304
Total number of properties affected by significant impacts related to both projects. Operation.	Y1: 1030 Y15: 767
Total number of properties affected by significant impacts related to both projects. Construction and Operation	1304

4.0 Policy Position

4.1.1 IACC has identified the applicable policies that are applicable to the individual topics within each section of the LIR and hence they are not repeated here. In the context of the CIA, the following policies are of particular relevance.

- a) The Appraisal of Sustainability included within the National Policy Statement for Nuclear Power Generation (EN-6) (2011) identifies that there could be significant effects arising from a new nuclear power station development at 'Wylfa' upon the Tre'r Gof, Cemlyn Bay and Cae Gwyn SSSIs which are located within 5km of the site. The Tre'r Gof SSSI lies within the Wylfa Newydd Development Area boundary. The AoS also recognised that there could be remaining effects upon the AONB, particularly within North Anglesey and potential effects upon footpaths including the Wales Coast Path are also highlighted (para 2.3.4. of SPG Topic Paper 11: North Anglesey).
- b) The latest Planning Policy Wales (PPW9) was published in November 2016 incorporates changes to legislation including the Well-being of Future Generations (Wales) Act 2015 and the Environment (Wales) Act 2016. PPW 9 together with Technical Advice Notes (TAN), and Circulars address the key themes that apply to the CIA for the WNP. Collectively they seek to secure sustainable development in Wales by promoting social justice and equality of opportunity whilst also enhancing the natural and cultural environment. The Anglesey and Gwynedd Joint Local Development Plan (JLDP) which was adopted July 2017 provides current local policy which is consistent with PPW and thus the JLDP addresses the key themes of the Well-being of Future Generations (Wales) Act 2015 which seek to promote prosperity, resilience, health, cohesive communities, vibrant culture and thriving Welsh language.
- c) The West of Wales Shoreline Management Plan 2 (2012) identifies the North Anglesey Coast as one of three heritage coast sections and notes that much of this section of coast is under the stewardship of the National Trust and that the area is designated as an Area of Outstanding Natural Beauty and as Heritage Coast which is important for tourism because of their natural beauty and remoteness with settlements (such as Cemaes and Amlwch) supporting the tourism offer whilst being important traditional communities in their own right.
- d) The importance of the coastline around Anglesey is recognised in the Mon Menai Coastal Action Plan (2007) particularly with respect to the maximisation of the economic benefit that the coastal recreational activities (land and sea based) can bring.

Joint Local Development Plan

4.1.2 Strategic Policy PS 9: Wylfa Newydd and Related Development

- 4.1.3 The policy contains sixteen criteria against which the project should be considered. In recognition of the impacts, including cumulative that may affect local communities, criteria 13 states:

The burden and disturbance borne by the community in hosting a major national or regional nuclear related infrastructure project should be recognised; and appropriate packages of community benefits provided by the developer will be sought to offset and compensate the community for the burden and disturbance imposed by hosting the project;

Wylfa Newydd SPG 2018

- 4.1.4 In respect of health and well-being the documents states at paragraph 4.3.6 that IACC expects full consideration to be given to the cumulative effects of disturbance. The related policy guidance GP 6 Protecting health references the need for assessments to consider potential cumulative effects.
- 4.1.5 The importance of considering cumulative effects is also recognised within GP10a, in relation to effects upon the local housing market, the Welsh Language (GP 14) and the Historic Environment (GP 23).
- 4.1.6 In response to potential significant cumulative effects GP 24 Planning Obligations calls for all applications relating to a project, both DCO and TCPA to take into account cumulative impact and to respond via a 'total Section 106 package'.
- 4.1.7 Section 5.1 of the SPG considers the potential impacts of Wylfa Newydd upon the communities, economy and environment of North Anglesey. It identifies the potential for cumulative and in-combination effects as a key consideration and at GP27 criteria iv states that potential cumulative effects with other major developments must be assessed and mitigated within the DCO application. Paragraph 5.1.33 identifies Magnox and National Grid as developers of projects and states that the developer of Wylfa Newydd should work in partnership with them to identify and mitigate cumulative effects.

5.0 Mitigation

- 5.1.1 As an overarching principle IACC's Supplementary Planning Guidance clearly indicates at paragraph 4.1.1. the Council's position with respect to significant impact identification and mitigation. The concluding sentence of this para. states:

"The County Council will expect the Wylfa Newydd project promoter and any other applicant to seek to avoid adverse impacts in this first instance. Where adverse impacts cannot be avoided, appropriate mitigation should be implemented to offset the identified, and agreed, significant adverse impacts. Compensation will be sought in respect of residual impacts that cannot be mitigated."
- 5.1.2 Application of the proximity principle as identified by IACC indicates that the focus of mitigation and compensation should be upon those receptors that will subject to the greatest magnitude of change to baseline conditions and which will experience significant adverse residual cumulative effects (**significant negative cumulative impacts**) with respect to the intra-project interactions of the WNP and/or inter-specific cumulative effects arising from other RFFPs in combination with the WNP.
- 5.1.3 North Anglesey is clearly the focus of significant adverse residual cumulative effects on sensitive receptors. IACC considers that the **residual** intra-project cumulative effects of the WNP on persons residing within defined community boundaries and at more widespread residential properties in close proximity to

the WNDA should be of major adverse significance (**significant negative impacts**).

- 5.1.4 IACC has attempted to identify the spatial distribution of receptors that will experience such impacts as a result of intra-specific cumulative effects arising from the WNP with a higher degree of transparency than Horizon has provided. IACC has also taken the findings of the EIA and ES for the NWCP into account to enable inter-specific cumulative effects to be accounted for. IACC's key objective is to ensure that specific mitigation and compensatory measures can be defined and targeted with the greatest degree of accuracy that is possible. IACC requests that Horizon provides transparent spatial information of a similar nature to enable consensus to be reached on the targeting of mitigation and compensation measures.
- 5.1.5 With respect to physical mitigation and compensatory measures, IACC continues to assess how mitigation can respond to very complex and ultimately unpredictable combinations and timings of future development.
- 5.1.6 At this stage, it does not appear helpful to attempt to list specific mitigations that might arise from particular combinations of development overlapping, particularly in a local context, but that might be appropriate during the course of the continuing examination process.
- 5.1.7 However, a clear issue that does emerge is that a combination of development pressures is likely to intensify impacts and accordingly need for mitigation identified elsewhere, and so underscore the need for contingency and community funds and the flexibility in deployment of them, both in their scope and the amount available within them to meet particular needs.
- 5.1.8 These physical mitigation and/or compensatory measures should be scoped and delivered to ensure, for example that
 - a) the local environment currently experienced by the resident population shall be protected and enhanced as far as possible and protected for future generations;
 - b) local facilities and housing remain available to meet the Island population's ongoing needs;
 - c) tourists will continue to be attracted to visit the area and utilise local facilities during the construction phase of the WNP;
 - d) that opportunities are maximised to protect local business from the distorting effect of such major projects but also to maximise local employment opportunities within them.
- 5.1.9 It is likely that to achieve these aims, local communities should be subject to compensatory intervention by Horizon. The most appropriate mechanism for such compensation would be via a Fund that enables the communities to invest in their local environment and infrastructure.
- 5.1.10 Monitoring of the performance of mitigation and compensatory measures should be a key aspect but with the embedded flexibility for further actions to be delivered in a timely manner in the event that monitoring demonstrates that

the cumulative effects of the WNP are not occurring as they are predicted within the DCO submission.

- 5.1.11 This cumulative impact assessment response is not intended to subordinate any of the other responses made by IACC which concern, for example, the Welsh language assessment, Equality assessment and Wellbeing assessment.

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