

From: [PMO](#)
To: [Wylfa Newydd](#)
Subject: RE: IACC Deadline 2 Submission : Local Impact Report - Introduction (email 3)
Date: 04 December 2018 20:37:35
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[Annex 1D-1O \(Batch 2 of 2\).zip](#)

Please note, a number of emails will follow in relation to the LIR – we will confirm the final e-mail.

Pnawn Da/ Good afternoon,

Gweler ynghlwm cynrychiolaeth CSYM mewn perthynas â'r uchod / *Please see IACC's representation in respect of the above.*

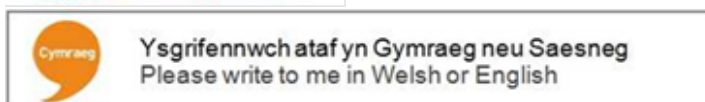
Bydd fersiwn Gymraeg yn cael ei ddarparu cyn gynted a phosib / *A Welsh version of the submission will be provided in due course.*

Cofion/ Regards,
Manon

Swyddfa Rhaglen Ynys Ynni /
Energy Island Programme Office
01248 752435 / 2431
PMO@ynymon.gov.uk



www.ynysynnimon.co.uk / www.angleseyenergyisland.co.uk



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Mae cynnwys y neges e-bost hon yn cynrychioli sylwadau'r gyrrwr yn unig ac nid o angenrheidrwydd yn cynrychioli sylwadau Cyngor Sir Ynys Môn. Mae Cyngor Sir Ynys Môn yn cadw a diogelu ei hawliau i fonitro yr holl negeseuon e-bost trwy ei

rwydweithiau mewnol ac allanol.

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YNYS MÔN
ISLE OF ANGLESEY
COUNTY COUNCIL

DYLAN J. WILLIAMS BA (Hons), MSc, MA, M.R.T.P.I.
Pennaeth Gwasanaeth – Rheoleiddio a Datblygu Economaidd
Head of Service – Regulation and Economic Development

CYNGOR SIR YNYS MÔN
ISLE OF ANGLESEY COUNTY COUNCIL
Canolfan Fusnes Môn • Anglesey Business Centre
Parc Busnes Bryn Cefni • Bryn Cefni Business Park
LLANGEFNI
Ynys Môn • Isle of Anglesey
LL77 7XA

ffôn / tel: (01248) 752499
ffacs / fax: (01248) 752192

Gofynnwch am / Please ask for: Dylan Williams
E-bost / Email: DylanWilliams@ynysmon.gov.uk
Ein Cyf / Our Ref:
Eich Cyf / Your Ref:

Dyddiad / Date: 01/10/2018

Mr Kieran Somers
Horizon Nuclear Power,
Sunrise House,
1420 Charlton Court,
Gloucester,
GL3 4AE.

Sent by email

Dear Kieran,

OFFICIAL SENSITIVE

Review of Horizon's DCO Submission (Wylfa Newydd Development Area)

Introduction

- 1.1 Following the submission of the Isle of Anglesey County Council's (IACC) Relevant Representations to the Planning Inspectorate and the SOCG workshop held on the 24th July 2018, the purpose of this letter is to provide you with further detail and clarity on the IACC's position in relation to the Wylfa Newydd Development Area (WNDA). The IACC is committed to discussing and agreeing as many issues as possible prior to the DCO Examination to ensure that the proposed development is acceptable and that the Examination hearings can be as focused and productive as possible.
- 1.2 Horizon's approach to mitigation based on monitoring and then dealing with impacts as and when they occur is wholly unacceptable. The IACC's stance is that impacts should be avoided and where that is not possible there should be proactive and pre-emptive measures to protect and enhance Anglesey's Historic and Natural Environment. This principle equally applies to other thematic issues. This includes agreeing a suite of preventative measures, DCO requirements, DCO obligations and changes to phasing / timing to avoid or minimise impacts where possible. Where adverse impacts cannot be avoided, and where effects have been minimised but are still significant, appropriate mitigation should be implemented to offset the identified, and agreed, significant adverse impacts. Compensation will be required in respect of residual impacts that cannot be adequately mitigated. In addition, a community resilience fund will be required to address unforeseen impacts that have not been identified and assessed. The aim of this letter is to outline these issues / impacts and to define the mitigation measures required to make the development / impact acceptable in planning terms.
- 1.3 The matters raised below represent part of IACC's ongoing engagement with you on the DCO application as regards issues related to the WNDA and are made in response to the

application as submitted. The IACC reserves the right to add to or amend these issues (and raise new issues) as necessary in its Written Representations and Local Impact Report.

2. Context

- 2.1 The WNDA needs to be considered in two phases, construction and operational phase, as the potential impacts on the environment and those communities located closest to the site will differ between the two phases.
- 2.2 The scale, complexity and nature of the construction phase will alter the perception of the area, changing it to an 'industrialised' location with the construction activities adversely affecting both the natural and historic environment as well as being a nuisance to those living near the site as a result of impacts on (for example) air quality, noise quality and visual amenity. The construction phase, if not appropriately managed, has the potential not only to affect those living closest to the site, but also to dissuade visitors and possibly other workers from choosing to remain in or locate to the North of Anglesey.
- 2.3 The construction phase needs to be satisfactory managed, and where impacts cannot be avoided or minimised, appropriate mitigation needs to be implemented to offset those impacts. The construction phase also needs to be satisfactory monitored with appropriate mechanisms and provisions in place for further mitigation to be implemented where a detrimental effect is identified.
- 2.4 The application needs to further appreciate the rich and sensitive coastal environment which exists around the WNDA, together with the presence of important historic assets. The rural nature of communities in its immediate vicinity also requires careful consideration in relation to the development of appropriate and satisfactory mitigation proposals to ensure that no significant effects are experienced. The application must ensure the delivery of enhancements wherever possible in order to secure the claimed benefits of the project.
- 2.5 Almost the entire coastline of Anglesey is designated as an Area of Outstanding Natural Beauty (AONB) due to the variety of fine coastal landscapes, coinciding with stretches of Heritage Coast. Parts of the AONB lie within the proposed WNDA whilst the Heritage Coast is in close proximity.
- 2.6 The island also contains important biodiversity and geodiversity assets, as demonstrated by the presence of a large number of European and nationally designated sites. These are designated to conserve natural habitats and species of wildlife that are rare, endangered or vulnerable in the European Community.

3. Summary of Main Issues

- Historic Environment

- 3.1 Horizon has assessed the Project's impacts on designated cultural heritage assets and their settings, both on site and in close proximity to the site, (including Cestyll Garden and the Grade II* listed Corn Mill). IACC considers that the assessment fails to provide the certainty that specific mitigation and compensation measures are to be secured and delivered as part of the DCO to mitigate and compensate for the loss of, long term impacts on and substantial harm to these assets.
- 3.2 Horizon's assessments also fail to properly consider the significance of the archaeological discoveries that have been revealed to date following the archaeological investigations. Accordingly, the policy test regarding significant harm to non-designated heritage assets of equivalent significance to scheduled monuments has not been met.
- 3.3 IACC considers that there may be opportunities to manage the adverse effects on the historic environment to a greater degree through the combination of avoidance, mitigation and offsetting, without substantial redesign of the proposed development.

- Cestyll Garden

- 3.4 Cestyll Garden is a Grade II Registered Park and Garden of Special Historic Interest in Wales (CADW). The Registered area includes the Valley Garden and the Kitchen Garden set within an Essential Setting which includes the Cestyll House plot, the original driveway to the house plus two Significant Views towards Porth y Pistyll, one from the Valley Garden and one from the house plot.
- 3.5 Cestyll Garden has gained statutory protection under the Historic Environment (Wales) Act 2016 and the statutory area is to be confirmed by CADW in due course.

○ Predicted Impacts and Mitigation

- 3.6 As Horizon has identified, Cestyll Garden would be subject to major adverse impacts during both the construction and operation of the Wylfa Newydd Project, even after the offsetting and mitigation measures so far proposed. This is as a consequence of the loss of the Registered areas (the Kitchen Garden) and a large portion of the Essential Setting (including the Cestyll House plot and the driveway). There will also be the long-term indirect impacts of the Wylfa Newydd Project on the setting of the Valley Garden including one of the Significant Views towards Porth y Pistyll and other contributing views from the garden. This would give rise to substantial harm to this Grade II Registered Historic Park and Garden and any such harm should be exceptional, clearly and convincingly justified and weighed against the public benefit of the development (NPS EN-1, para 5.8.14). It is the Council's opinion that Horizon has not yet demonstrated that the loss of the Kitchen Garden, house plot, driveway and part of the Essential Setting is necessary in order to deliver the substantial public benefits of the development.
- 3.7 Horizon has recognised the major adverse impacts of the Project on Cestyll Garden in the *Effects on Heritage Assets* (6.4.77, ES App D11-6) and in the *Integrated Landscape Heritage and Architectural Plan for the Wylfa Newydd Project* (6.4.79, ES App D11-8). However, the mitigation measures proposed (the use of "appropriate materials" for the

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construction of the MOLF and breakwaters and the restoration and/or enhancement of the former location of the Kitchen Garden) are not included in the design of the Marine Works or in the wider scheme of landscape restoration and management provided by Horizon in the *Landscape and Habitat Management Strategy* (8.16), respectively. Indeed, the latter shows a steep bank and woodland over the driveway, the house plot and the location of the Kitchen Garden, which is neither restoration nor enhancement of this part of the Grade II Registered Park and Garden.

- 3.8 Furthermore, the compensation measures proposed (a photographic survey of the garden, interpretive signage and future public access) are not adequate to compensate for the losses and impacts identified in the view of IACC.
- 3.9 Consequently, Horizon has not provided clear and convincing justification for the substantial harm which will be caused to Cestyll Garden; it has not provided sufficient mitigation and compensation for the losses and impacts identified and it has not included sufficient detailed information to satisfy IACC that appropriate mitigation and compensation will be secured. The development of a more detailed and specific *Conservation Management Plan* would be an appropriate means to set out specific mitigation and compensatory measures (see summary of mitigation and compensation measures below). This plan (or at a minimum its outline) should be a certified document per the DCO.
- 3.10 With regards to Cestyll Garden, IACC would like to see direct impacts avoided where possible with mitigation measures secured to reduce the impacts to only those that can be clearly and convincingly justified (the residual impacts) and with compensation measures provided to fully compensate for these residual impacts. IACC will therefore require both additional information to be submitted and a range of mitigation and compensation measures to be secured by way of the DCO requirements and the certified plans and strategies.

○ *Summary of Additional Information Required*

- 3.11 In the first instance, IACC requests that Horizon considers minor changes to its design and layout proposals for the construction and operation of the WNDA (including the Marine Works) in order to be able to retain and enhance Cestyll Garden and its Essential Setting.
- 3.12 Should Horizon still consider that part of the Registered area and Essential Setting (and/or the Statutory area when this is confirmed) is required during the construction and/or operational phases, IACC considers that the following additional information should be provided:
- There needs to be clarity regarding exactly what is to be lost and how the setting of the garden will be affected by the final design (e.g. an annotated plan and sections at a suitable scale that clearly show the various elements of the garden and the relevant parts of the Power Station structures, levels, lay down areas, mounds, banks, etc. during construction and during operation).
 - There needs to be clear and convincing justification which demonstrates that the loss of the Registered area including the Kitchen Garden and part of the Essential Setting including the house plot and driveway is necessary in order to deliver the project. This needs to reference appropriate studies undertaken to determine the

location, scale and method of construction of the Power Station, Marine Works and laydown areas.

3.13 With regards to indirect effects on the garden:

- There needs to be clarity regarding the combined impacts (noise, dust, vibration, lighting, visual impact, etc.) on Cestyll Garden and its associated Grade II* Listed Building (Corn Mill), and the measures proposed to mitigate these as much as possible.
- There needs to be a design submitted for the re-modelling of the west breakwater at the end of the construction phase, to give it a more natural appearance/profile so that it appears more like a vegetated rocky island for the duration of the operational and decommissioning phase (rather than an engineered structure). This is required to reduce the long-term impact on the Significant Views and other views from Cestyll Garden.
- *Summary of Mitigation and Compensation Measures to be secured by way of DCO requirements*

3.14 IACC also requires a range of mitigation and compensation measures to be secured by way of the DCO requirements which include the following;

- Compilation of a register of plants growing in Cestyll Garden (Registered areas and Essential Setting), ascertaining whether there are any rarities and identifying and implementing measures to safeguard these.
- The preparation of a comprehensive record of Cestyll Garden (Registered areas and Essential Setting), including the parts of the asset that will be lost (or temporarily lost as even temporary loss and reinstatement is a loss of significance), to advance the understanding of the significance of the asset. This evidence to be published and deposit copies of the report to be provided to the HER and a local museum. This would be used to form the basis for any ongoing management and restoration proposals.
- Prevent the loss of any part of the Registered area and Essential Setting (and/or future Statutory area) until there is reasonable certainty that the relevant parts of the development are to proceed. (This could be achieved through Phasing requirements).
- That the Kitchen Garden (and any other parts of the Registered and/or Statutory areas that have been affected) are reinstated using the existing materials retained for this purpose, as soon as possible during the construction phase, with the reinstatement to be carried out in line with detail agreed in the relevant CoCP.
- That a *Conservation Management Plan* is prepared that draws on the enhanced understanding provided by recording to set out measures to protect and enhance Cestyll Garden as a whole and to enhance public access in the long term.
- Identification and implementation of measures to safeguard and/or mitigate against potential adverse effects on Cestyll Garden that could arise, e.g. from dust, vibration, changes to water quality, light pollution, etc.

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- That all other mitigation identified in the additional information which is referenced above to be submitted.

- **Listed Buildings**

3.15 There are three Grade II listed buildings in Gafnan, immediately to the west of the WNDA, which are associated with the former operation of Gafnan Mill. These include a Corn Mill (Grade II*), Corn Drying House (Grade II) and Mill House (Grade II) which are located adjacent to Cestyll Gardens.

○ *Predicted Impacts and Mitigation*

3.16 The application states that the Corn Mill, a heritage asset of high value, located within the Essential Setting of Cestyll Garden, would be subject to a 'short-term' adverse change of major significance during construction (a 10-year period) and a lasting adverse change of moderate significance, even following the offsetting and mitigation measures. The submission confirms that the setting of this asset would be permanently transformed, including views into Porth y Pistyll which would be substantially altered by the construction of the breakwaters. This would affect the historic value of the asset and any sense of the composition of views within the bay and out to sea, which would take on a predominantly industrial aspect at odds with the asset's current setting.

3.17 During construction, the submission also identifies the potential for vibration to cause structural damage to the Corn Mill, but it notes that safe working practices would be implemented to avoid any lasting damage.

3.18 Although mitigation against physical damage arising from vibration is presented in outline, further detail of this mitigation proposal is required before it can be considered robustly by the IACC. It is noted that safe working practices would be identified to avoid any lasting damage but no detail is provided to allow an assessment of the likely effectiveness of any mitigation proposals and for the degree of damage to this heritage asset, which is of 'the highest significance' in NPS terms, to be ascertained

3.19 The DCO submission does not offer a statement as to whether these effects would constitute harm in policy terms, and no judgement is offered as to whether harm would be of substantial magnitude. The magnitude of change to setting during construction through visible and audible change to setting combined with light pollution and change to air quality could also approach or even amount to substantial harm, even where material damage through vibration could be avoided.

3.20 The permanent effects will include the asset being located within an 'industrialised' area. There is a further need for Horizon to confirm how the landscape within the setting of the Corn Mill will be restored at the end of the Construction phase.

3.21 IACC agrees with the assessment of effects for the Corn Drying House and Mill House, which will include a change to setting which would give rise to harm but not substantial harm. Mitigation is possible through satisfactory overall landscaping proposals that fully appreciate the historic environment.

3.22 With regards to the Corn Mill, the Council requires further detail of the mitigation measures that are to be secured to reduce impacts as well as further compensation measures to be secured to fully compensate for residual impacts. This requires both additional information to be submitted and a range of mitigation and compensation

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measures to be secured by way of the DCO. The present setting of the Corn Mill is inextricably linked to its relationship with Cestyll Garden and the survey and recording elements set out as mitigation in the ES should be used to inform any proposals for mitigation of lasting change to setting. Any long-term mitigation for this heritage asset must be integrated with mitigation for Cestyll Garden, and this heritage asset should therefore be considered within the Cestyll Garden Conservation Management Plan.

- *Summary of additional information required*

- There needs to be clear statement of the magnitude of the harm to the Corn Mill in policy terms
- Further detail is required of the mitigation that is proposed to protect the Corn Mill against physical damage arising from vibration and how this will be secured.
- Further detail of how the landscape will be restored at the end of the Construction phase is required. This must draw on an understanding of the heritage asset and its setting as developed through the more detailed survey and recording to be carried out as set out in the ES.

- *Summary of Mitigation and Compensation Measures to be secured in the DCO*

- Further offsetting measures are required to compensate for long term visual impacts as a result of the effects of permanent structures including the MOLF. This would include undertaking structural and stabilisation works to the mill.
- The *Conservation Management Plan* for Cestyll Gardens should form the basis for any landscape mitigation.

- **Archaeology**

3.23 Disturbance or loss through total removal of archaeological heritage assets will occur within the site boundary. Proposals for archaeological investigation to be carried out prior to DCO for the WNDA were agreed in principle as a Programme of Works by Gwynedd Archaeological Planning Service on behalf of the County Council. The work was justified on the basis that it had significant potential to enhance the regional research agenda, that the remains were under threat from ongoing land management or other agricultural practices and that there was significant public benefit in undertaking a piece of landscape-scale archaeological investigation.

- Predicted Impacts and Mitigation

3.24 The Archaeological programme that has taken place pre-DCO submission has revealed a landscape rich in well-preserved, buried archaeological remains. Many of these remains have been recognised as being of national significance. The significance of these remains has been confirmed by both the archaeological advisor to the County Council (GAPS) and Cadw and is reflected by the ES valuation of these assets as of high value. This is particularly in relation to the discoveries within the medieval cemetery at Wylfa Head and the late prehistoric / Romano-British settlement site which occupies the valley between Caerdegeg Isaf and Cemlyn Road. Part of this settlement is currently under excavation at 05 South, though it is now apparent that significant remains exist across a much wider area.

- 3.25 NPS EN-1 sets out that archaeological heritage assets may be of equivalent significance to scheduled monuments (5.8.4) and where they are of this significance that they should be subject to the same policy provisions (5.8.5). Consequently, robust justification should be provided to explain why the magnitude of harm that would arise to such significant heritage assets in order to achieve the public benefits of the scheme cannot be avoided.
- 3.26 As per the advice in NPS EN-1 5.8.19-22, an agreed scheme of archaeological investigation and recording needs to be approved including a post excavation work programme, reporting, publication and archiving. This should reflect the high significance of the archaeological discoveries to date.
- 3.27 SPG Policy GP23 confirms the need for Horizon to explore the opportunities to enhance the Island's cultural heritage assets including through the sympathetic renovation and re-use of buildings identified as being at risk or by improving public access to assets. Opportunities for interpretation, presentation, outreach and education should be explored on site and through liaison with local schools and museums. Consideration should be given to reconstructing examples of archaeological sites along the coastal path and providing interpretation within the proposed new visitor centre and in local museums as well as other more innovative approaches to disseminating the results of the investigations.

- *Summary of additional information required*

- The ES should be updated to reflect the significance of the discoveries that have been revealed to date, and as some sites in the submissions have been currently undervalued, re-assess the impacts on these sites;

- *Summary of Mitigation and Compensation Measures to be secured in the DCO*

- An agreed scheme of archaeological investigation and recording, including a post excavation work programme, to be approved under DCO requirement. This should reflect the significance of the archaeological discoveries to date. Further information and commitments made for the provision of enhanced interpretation.

- **Assessment of the change to setting of off-site heritage assets**

- 3.28 The ES confirms that the Church of St Padrig, Llanbadrig, a Grade II listed church of medium heritage value, would be subject to a change of medium magnitude which would give rise to a moderate effect during construction, falling to negligible during operation. No advice is given in the ES as to what magnitude of harm would arise in terms set out by NPS EN-1.
- 3.29 It is stated that change would arise through the audible and visible perception of the construction activities. There is no statement as to how the noise levels have been determined nor what specific elements of construction would cause increased noise. In the absence of this information it is not possible to come to an informed understanding of the nature or magnitude of the predicted effect.
- 3.30 The mitigation that would be applied to reduce the perceptibility of construction within the setting of the Church of St Padrig should be set out clearly with reference to the effects that would be experienced.

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3.31 The change to the setting of off-site heritage assets caused by perceptibility of the proposed development is not clearly discussed. There are listed buildings located closer to the construction site than the Church of St Padrig which could also be adversely affected by the visibility and noise levels of the construction works but have not been considered, or any effect dismissed in the assessment, including Cemaes Mill and Ty Cefn, Cemlyn.

- *Summary of additional information required*

- Further information regarding how noise levels have been determined including confirmation as to what specific elements of construction would cause increased noise. This will further inform the appropriate mitigation proposals.
- Confirmation as to whether other listed buildings located closer to the construction site than the Church of St Padrig have been considered and impacts assessed. If effects have been dismissed this should be confirmed or further assessment carried out to inform suitable mitigation proposals. This should include consideration of Cemaes Mill and Ty Cefn, Cemlyn.

- **Loss of historic assets/structures within the site boundary**

- 3.32 The ES confirms that three non-designated historic buildings within the site boundary are subject to total removal or demolition. It is suggested in the ES that some of these features may be of equivalent significance to Grade II listed buildings and that their demolition would result in substantial harm. The valuation criteria adopted in the ES appears to consider assets 138 (Nant Orman, Cemaes) and 163 (Tre'r Gof Uchaf, Cemaes) as being of equivalent value to Grade II listed buildings.
- 3.33 The relevant national and local policies, including NPS EN-1, require a presumption in favour of the conservation of designated heritage assets, the more significant the asset, the greater the presumption in favour of their conservation.
- 3.34 The ES has used the Design Manual for Roads and Bridges to confirm the value of these assets, and therefore uses the same valuation as that confirmed for Grade II listed buildings. This valuation implies that the requirement for justification that substantial harm to heritage assets of equivalent significance to listed buildings is unavoidable would apply in these cases.
- 3.35 The IACC recommends that the valuation of built heritage assets which may be affected by the proposed scheme is reconsidered using a methodology more closely aligned to the approach set out in NPS EN-1 5.8.2 and *Conservation Principles* (CADW 2011) to more accurately understand their significance.
- 3.36 Where it is confirmed that these buildings are of equivalent significance to listed buildings, a statement should be provided to demonstrate why the loss of these heritage assets is unavoidable in order to gain the significant public benefits of the proposed scheme in line with NPS EN-1 5.8.15. Appropriate mitigation or offsetting proposals taking into account that level of significance should be proposed.

3.37 If these assets are judged to be of lesser significance than designated heritage assets, mitigation proposals are required to address adverse change to the significance of these assets. The extent and nature of any mitigation would depend on the significance of these heritage assets, although if it is considered that they are of lesser significance than designated heritage assets then it is likely that the investigation and recording proposed in the ES will represent an appropriate means of mitigation.

- *Summary of additional information required*

- The valuation of built heritage assets which may be affected by the proposed scheme should be reconsidered using a methodology more closely aligned to the approach set out in NPS EN-1 5.8.2 and the Conservation Principles (CADW 2011).

4. Natural Environment

- Ecology

4.1 Horizon's assessment of the effects of the WNDA fails to demonstrate that the unique and distinctive natural environmental assets are to be conserved, and wherever possible, enhanced. Where it is confirmed that adverse impacts cannot be avoided, IACC requires certainty that appropriate mitigation and/or compensation measures will be secured and delivered by Horizon.

- *Predicted Impacts and Mitigation*

4.2 IACC has particular concerns regarding some of the baseline data and the ecological assessment conclusions. There are a number of areas where the data and assessments that support the DCO application are unclear or inconsistent, and the robustness of the baseline is therefore uncertain for some receptors.

4.3 This is important as the DCO assessment largely relies on the mitigation provided by the Landscape and Habitat Management Strategy (LHMS) when reaching its conclusions regarding significance of effects, but many of the commitments within the LHMS are generic and lack detail.

4.4 Furthermore, 'short' and 'medium' term impacts (in reality, effects lasting well over a decade and so several generations of many species) are frequently underplayed by being considered solely against the theoretical gains associated with the long-term delivery of the LHMS (where many of the commitments are loose or aspirational).

4.5 As a result, the absence of detail in the LHMS combined with the uncertainties in the baseline, means that some of the conclusions of the Ecological Impact Assessment cannot be robustly tested and confirmed; nor can the suitability of the mitigation proposals be determined. This is a particular issue with regards to the loss of Section 7 habitats; and effects on reptiles, bats, red squirrel, chough and the Arfordir Mynydd y Wylfa – Trwyn Pen Carreg Wildlife Site (although there are a range of issues for other receptors).

4.6 **National designated sites** – Tre'r Gof SSSI is located within the WNDA, located to the east of the existing Power Station in the northern part of the WNDA. Tre'r Gof SSSI is a rich-fen wetland habitat which is vulnerable to changes in water quality or quantity. The WNDA is also adjacent to Cae Gwyn SSSI, which is situated on the southern boundary, also designated for its botanical interest.

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- 4.7 The DCO application does not exclude the possibility of significant adverse effects on the Tre'r Gof SSSI and includes three sites where habitat creation and enhancement works are proposed to offset the anticipated effects of the development on Tre'r Gof SSSI.
- 4.8 IACC needs to be assured that the compensation package is able to offset the anticipated effects, and it will refer to the specialist knowledge and advice of NRW for this assurance.
- 4.9 **Section 7 habitats:** The principle issue is the lack of data clarity, and the implication of this for the assessment conclusions, particularly regarding effects on Section 7 habitats.
- 4.10 Horizon's conclusion regarding effects on habitats is summarised in 9.5.136 of ES Volume D – WNDA Development D9: “...*medium in the medium-term. As the habitat permanently lost under the footprint of permanent infrastructure mainly comprises low quality grassland, and the provisions of the Habitat Management Strategy would mitigate habitat losses in the long-term through the creation of habitats of higher biodiversity value, the medium magnitude of change is not expected to affect the integrity of terrestrial habitats. As such, a minor adverse effect due to habitat loss, fragmentation or modification is predicted*”. IACC considers that the baseline data is not presented in a manner that allows this assessment to be easily tested and therefore the areas of each priority habitat that will be permanently or temporarily lost are not clear. Further information is also required with regard to the timescale over which any effects will be offset by the LHMS.
- 4.11 Clarity is also required regarding the effects on Section 7 (S.7) habitats including the revision of Table 9-7 (ES Volume D) to identify the S.7 habitats, and the amount of each habitat permanently lost, temporarily lost and restoration amounts; this should cross-reference the NVC survey as far as possible to specifically identify the rarer and higher-value S.7 habitats. IACC requires this information so that it can review the performance of the scheme against Section 6 of the Environment (Wales) Act (2016), as this places a duty on public authorities to ‘*seek to maintain and enhance biodiversity*’ and ‘*promote the resilience of ecosystems*’.
- 4.12 **Reptiles:** The absence of survey details within the Technical Survey Report (TSR) (e.g. the area surveyed; the density of tiles; etc.) means that the survey results cannot be put into context or their robustness assessed. For example, the reptile TSR states that “[Survey] *limitations are unlikely to significantly alter the conclusions...primarily due the quantity of data available from four years of survey data, coupled with background data from Cofnod and incidental sightings*”. However, there are not ‘four years of survey data’ as stated but several surveys from several locations, undertaken during a four-year period. No locations have ‘*four years of survey data*’ – for most locations there are only one or two years of survey data.
- 4.13 With regard to the assessment and mitigation proposals, paragraph 9.5.197 of ES Volume D – WNDA Development D9 states that “*The magnitude of change is therefore predicted to be small [due presumably to the restoration provided by the LHMS and mitigation provided by the receptor sites] and so a negligible effect of habitat loss and fragmentation is expected during construction*”. Horizon's core argument is that the total loss of all available habitat within the development site; the displacement or translocation of reptiles to off-site areas several hundred metres away for the duration of the build; and

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the associated fragmentation of habitats and populations at the district scale will be fully mitigated in the short- to medium-term by the provision and enhancement of the 'receptor areas', and the restoration of the site habitats in the long-term. It concludes that the effects on the integrity of reptile populations would therefore be negligible. The IACC does not accept that this case has been made.

- 4.14 In the short- to medium-term the development clearly has the potential to undermine several aspects that are key to reptile population integrity (including access to and availability of optimal habitats, exposure to mortality risks, dispersal between habitat patches, etc.). The Horizon assessment would suggest that these effects are negligible due to the long-term gains provided by the LHMS. However realising the potential benefits of the LHMS and the successful re-colonisation of the site in a reasonable timescale will require the persistence of populations locally over the construction period. It is not clear from the documentation provided as to what proportion of the estimated population site-wide will actually be translocated as proposed. This is because many reptiles will be displaced to sub-optimal off-site areas away from these sites (or, potentially, killed if they remain on site). There will therefore be a fragmentation of populations, with the likelihood that any reptiles that are displaced to Wylfa Head will be effectively isolated for the duration of the works.
- 4.15 Essentially, the success of the long-term measures outlined in the plan will be dependent upon reptile populations remaining present and viable in the local area throughout the duration of construction. Furthermore, there is no intention in the LHMS to re-translocate animals from the receptor sites to the restored areas, despite the Power Station site presenting a significant dispersal barrier.
- 4.16 Further detail regarding the proposed construction mitigation measures are required in the Wylfa Newydd Main Site CoCP, including;
- Confirmation of the areas within the site where trapping / translocation is to be undertaken;
 - Confirmation of how many reptiles are expected in these areas;
 - Detail of the precise phasing, timing, speed and direction of site clearance at a field level (i.e. the displacement programme needs to demonstrate that reptiles will not become isolated within the site, and that the rate of clearance is appropriate to the rate of species movement);
 - Detail of the provisions for monitoring populations during the construction period; and
 - Details of the provisions for intervention if the short- and medium-term measures associated with the receptor sites are not shown to be successful by monitoring.
- 4.17 **Bats:** There are several deviations from established survey guidance (both currently, and at the time of survey) that are not explained, and which could affect the characterisation of the baseline. These deviations need to be explained.
- 4.18 Beyond this, the mitigation alluded to in the ES documentation (and its relationship to the assessment of effects) is not clear, particularly with regard to the mitigation proposed for the loss of roosting opportunities: for example, Para. 9.5.299 states that "*Good practice mitigation would also be required if trees supporting bat roost potential would be lost. This would comprise the provision of bat boxes to mitigate the loss of roosting features.*"

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All works affecting tree roosts would be subject to an EPSML, as outlined in appendix D9-20."

- 4.19 The good practice mitigation in Section 9.4 makes no mention of bat box provision; and it is not clear whether this proposed mitigation is for 'known roosts', "*trees [with] bat roost potential*", or "*roosting features*"; or what the quantum of provision is. The subsequent reference to the EPSML in para. 9.5.299 does not add clarity. IACC needs to understand whether this is 'mitigation' for the loss of known roosts (which would be required in any case) or 'mitigation' for the reduction in the number of features that might be available to roosting bats across the site. The provision of bat boxes is then identified as an "Additional Mitigation" measure in Table D9-10, which states that "*To compensate for the loss of potential roost features due to building demolition and tree felling, 24 Schwegler bat boxes would be hung within an area of retained woodland to the east of the Power Station*". It is not clear how this relates to the assessment (i.e. whether the 'additional mitigation' is meant to be factored into the assessment of effects); nor is it clear what this provision specifically relates to. For example, the baseline notes that there are 16 known building roosts (and presumably additional buildings with features that might be used by bats) and "*57 trees and some areas of plantation woodland with features that have the potential to support roosting bats*". Confirmation is required as to whether the provision of 24 bat boxes is intended to mitigate the loss of 16 known roosts, plus at least 57 trees with features that could be used.
- 4.20 In either case, the current commitment to roost provision does not offset the loss of roosting opportunities site-wide during the construction period, and there are no firm commitments regarding the future provision of roosts in the LHMS. The works proposed will remove almost all trees with features that could be used by roosting bats, for a substantial period of time. The provision of bat boxes in the short and long-term should reflect this loss.
- 4.21 **Great Crested Newt (GCN):** The broad mitigation proposals for safeguarding GCN during construction are set out and are likely to be successful. The key issue is the long-term enhancement of the site through the LHMS. IACC notes that whilst the LHMS discusses the benefits of the terrestrial habitat restoration for GCN, it remains unclear as to how this 'enhancement' will be realised when there is no explicit commitment for the replacement of ponds (without GCN) lost during construction.
- 4.22 The ES estimates that nine ponds will be lost during the construction phase, with only loose commitments made regarding reinstatement, e.g. paragraph 9.5.122 of ES Volume D – WNDA Development D9 states "*On completion of construction, it is also proposed to convert suitable sedimentation ponds, channels and swales installed during construction to permanent or seasonally wet waterbodies or areas of damp ground*". The ES does not confirm how many new ponds will be converted, where they will be located, or what form this will take. Furthermore, in recent meetings regarding the LHMS, Horizon has suggested that a site figure of up to twenty ponds will not be replaced, other than by a small number of retained sedimentation ponds. This is well short of the 2:1 basis typically required by best-practice.
- 4.23 It is therefore unclear to IACC as to how GCN will benefit from the terrestrial enhancements advertised by the LHMS. In summary, the assessment of significance ('negligible effects') is correct if the limited context of the occupied pond and immediate surrounding area only is considered but it is evident that the proposals offer no enhancements for GCN beyond the bare minimum required for licensing purposes. The

significant reduction in pond numbers across the site will largely remove the possibility of meaningful future colonisation of the site by this species. At a local scale, therefore, the proposals do nothing to improve the resilience of GCN populations or their conservation status in the opinion of IACC.

- 4.24 **Red Squirrels:** The ES conclusion ('negligible significance') is based on the loss of 3 ha. of habitat suitable for red squirrel and the retention of 10.5 ha associated with the Dame Sylvia Crowe Mounds (DSC Mounds) this would be offset by the provision of 22 ha. in restoration. In the opinion of IACC the ES conclusion underplays the potential significance of short-term habitat loss and the isolation of the DSC mound for 10+ years. Whilst the Red Squirrel Technical Summary Report notes that "*Rodriguez and Andren's (1999) study predicted that squirrels utilise fragments if they are larger than 10 ha in size and are within 600 m of a source population*" the Council is of the opinion that other evidence would also suggest that an isolated 10 ha woodland is not sufficient to support an independently viable population (even with the proposed supplementary feeding). In the view of IACC it should be assumed that all of this habitat will be unavailable and probably unoccupied by the end of the construction period.
- 4.25 It should therefore be assumed that the population using the site will be lost for the duration of the works at least, and probably longer.
- 4.26 The loss of a 'low' population is significant in a local context but perhaps less so taking the population of Anglesey into account. The RSST estimates that the population of red squirrels on Anglesey is approximately 700, which would be the largest population in Wales, although it remains fragmented. On this basis the magnitude of change is arguably 'medium' in the short- and medium-term, with the prospect of an appropriate LHMS eventually mitigating this in the long-term (once connecting woodland is established). The LHMS needs to be designed to facilitate re-colonisation from local known populations and should include provision for at least one woodland block over 10 ha.
- 4.27 **Chough:** Para 9.5.214 of the ES Volume D – WNDA Development D9 notes that "*The removal of most habitats would be temporary in the short- and medium term as the provisions of the Landscape and Habitat Management Strategy ...include the reinstatement, creation and enhancement of habitats that would be suitable for chough*". IACC does not agree that the loss of 'most habitats' for 10 - 15 years would constitute a medium magnitude of change except if considered solely over the long-term with the assumption that re-colonisation will be rapid. In the opinion of the Council, the 'medium' magnitude of change (and hence of 'moderate adverse' significance), before additional mitigation is applied is underplayed, based on the disproportionate use by chough of the area directly affected by the site campus (field 146 accounting for >63% of foraging time in 2017 surveys).
- 4.28 The commitments of the LHMS might have some incidental benefits for chough, but benefits are being claimed for many species groups with different requirements. In the case of choughs, IACC considers that the 100ha of course-sward species rich grassland referred to at paragraph 9.5.215 of ES Volume D – WNDA Development D9, would be sub-optimal for chough being some distance from the nest sites of limited value.
- 4.29 Finally, disturbance of chough due to visitor pressure associated with the site campus is not considered to any great extent and particularly in relation to cumulative effects with habitat loss. Since chough will be reliant on a smaller area of sub-optimal foraging habitat

at Wylfa Head which will be liable to visitor pressure from the site campus it will be critically important to establish appropriate visitor management practices to prevent a significant impact from occurring.

4.30 **Trwyn Pen Carreg Wildlife Site:** The submission does not consider the Trwyn Pen Carreg Wildlife Site. This must be completed, including an assessment of the potential effects of increased visitor pressure due to the population of the site campus.

4.31 The assessment will inform the details of further mitigation and compensation requirements.

○ *Summary of additional information required*

4.32 The uncertainties in some aspects of the baseline and assessment means that the suitability of the proposed mitigation and compensation measures cannot necessarily be tested; nor appropriate requirements explicitly identified. IACC recognises that the LHMS will provide some biodiversity enhancements over the current site condition; however, in accordance with the statutory duty on the Council to seek to maintain and enhance biodiversity, IACC expects Horizon to explore opportunities to enhance the value and resilience of the Island's natural environment and ecosystem services. Whilst the LHMS has the potential to do this it is not clearly demonstrated in some areas.

- Section 7 habitats - The LHMS needs to demonstrate that any loss of Section 7 habitats is fully offset and further clarity is required regarding the effects on Section 7 (S.7) habitats is including revisions to Table 9-7 (ES Volume D) to identify the S.7 habitats, the amounts permanently and/or temporarily lost and the restoration amounts; this should cross-reference the NVC survey as far as possible to specifically identify the rarer and higher-value S.7 habitats.
- Section 7 habitats - the LHMS needs to demonstrate how the proposals will restore and enhance connectivity between displaced or translocated species populations in order to improve population and metapopulation resilience locally, with long term enhancements secured that are likely to increase the local populations of key S.7 species.
- Reptiles – A commitment should be provided for the translocation of reptiles from the receptor sites to created habitats within the restored area if natural re-colonisation is shown to be hindered by the power station.
- Bats - Confirmation is required that the provision of bat boxes offset the loss of roosting opportunities which include known roosts and potential roosting features.
- GCN – A further commitment is required to ensure that the proposals will improve the resilience of GCN populations or their conservation status at a local level.
- Red Squirrel - The LHMS needs to be designed to facilitate re-colonisation from local known populations and should include provision for at least one woodland block over 10 ha.
- Chough – The LHMS needs to confirm further specific commitments to create habitats for foraging chough.

- Chough – Further details of a mechanism to manage visitors is required.
- Trwyn Pen Carreg Wildlife Site – Further assessment is required of the potential impacts on the Wildlife Site.
- Monitoring - Commitments to long term monitoring, targets for restoration (including targets for population sizes of key displaced species e.g. adders), and proposals for securing long-term biodiversity benefits.

4.33 The IACC can further advice on mitigation and compensation requirements once the above identified additional information has been received.

- **Protected Landscape**

4.34 *Anglesey AONB and Heritage Coast* – Although direct and indirect effects on the Anglesey AONB are discussed in Appendix D10-6, only direct effects are assessed in terms of the magnitude and significance of the predicted effects. IACC considers it essential that Horizon assesses the indirect effects, and the indirect combined topic effects, of the proposed development on the AONB and Heritage Coast as part of the DCO application. This is because these effects would extend over a much wider area and will also significantly affect some of the special qualities of the AONB and Heritage Coast. Furthermore, the combination of direct and indirect effects on the features and special qualities of the AONB and Heritage Coast could significantly affect their ability to fulfil their purposes in this part of the AONB and Heritage Coast and this requires further consideration. The conclusions of this assessment will need to be considered and suitable mitigation and compensation proposals will need to be agreed and secured, which could include the undertaking of mitigation and/or compensation proposals elsewhere in the AONB and Heritage Coast to protect and strengthen these designations. The IACC can further advise on the mitigation and compensation proposals that are required once further assessment has been carried out by Horizon.

4.35 Reference should also be made to our letter titled 'Review of Horizon's DCO Application (Tourism)' dated 19th September 2018 which confirms the value of the AONB as part of Anglesey visitor experience.

○ *Summary of additional information required*

- The provision of an assessment of the indirect effects, including indirect combined topic effects, of the proposed development on all the features and special qualities of the AONB and Heritage Coast and to propose suitable mitigation measures to avoid, minimise, offset or compensate for these effects.
- The provision of an assessment of the combination of direct and indirect effects, including combined topic effects, on the features and special qualities of the AONB and Heritage Coast and to propose suitable mitigation measures to avoid, minimise, offset or compensate for these effects.

○ *Summary of Mitigation and Compensation Measures to be secured in the DCO*

4.36 The conclusions of the above assessments will need to be considered and suitable mitigation and compensation proposals will need to be agreed and secured. However, the types of compensation measures that IACC would also like to see undertaken

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elsewhere in the AONB and Heritage Coast to protect and strengthen these designations, and which would be secured by way of the DCO include:

- Aerial photographic survey of the WNDA and surrounding area, including parts of the AONB, before work commences on the site.
- Survey of hedges, stone walls and cloddiau in the AONB to identify the extent and condition of traditional field boundaries.
- A scheme for the restoration of traditional field boundaries in the AONB.
- Schemes for the restoration and enhancement of important habitats in the AONB, such as heathland, woodland, hedgerows, roadside verges and red squirrel habitats and to improve the connectivity between habitats.
- A scheme for the control of non-native invasive species in the AONB.
- Drainage management schemes for ditches and surface water courses in the AONB, to enhance water quality for habitats and species, to improve agricultural land and to reduce flooding,
- Footpath improvement schemes for the Wales Coast Path and other public rights of way in the AONB.
- The creation of a mapped record/register of field names. Many fields on Anglesey are named usually by the owner/farmer and have an historical, cultural, landscape and Welsh language significance.
- The establishment of rural skills programmes with local communities and schools.
- An Environmental Fund that could support events, recreational activities and environmental improvement schemes that benefit from and promote the unique qualities of Anglesey and the AONB, plus the Anglesey Geopark (GeoMôn) and the Dark Skies initiative.

Local Historic Landscape character - Wylfa Landscape Area (HLT8)

- 4.37 The change to the Wylfa Landscape Area during the construction phase which is a heritage asset of high value, is assessed in the ES to be of small magnitude, resulting in minor adverse and not significant adverse effects
- 4.38 The high value ascribed to HLT8 in the ES is derived from the evaluation of Outstanding cultural and historic significance in *LANDMAP* for Cultural Landscape Aspect Area CL010 (Wylfa Nuclear Power Station) and Historic Landscape Aspect Area HL055 (Wylfa). IACC considers this assessment to be appropriate. However, it considers the magnitude of the construction effects on HLT8 predicted in the ES to be understated, given the extent of the changes proposed to the landscape around the existing power station within HLT8 (direct effects) and also from changes that would occur in the adjacent historic landscape types (HLT3, HLT9 and HLT10) (indirect effects). Consequently, IACC assesses the effects of the construction phase on HLT8 are likely to be Moderate adverse and significant.

- 4.39 No assessment is provided of the operation or decommissioning effects. IACC considers that the change during operation would be of a reduced magnitude and unlikely to be significant provided that an appropriate landscape and habitat restoration scheme and management plan is in place.

Local Historic Landscape character - Dame Sylvia Crowe Landscape (HLT3)

- 4.40 The value/heritage significance of the Dame Sylvia Crowe landscape has been assessed as medium (ES Appendix D 11-5) and changes to the Dame Sylvia Crowe Landscape during construction, is assessed in the ES to be of medium magnitude, resulting in moderate adverse and significant effects, with no assessment provided of the operational or decommissioning effects.
- 4.41 It is IACC's assessment that the value of the Dame Sylvia Crowe Landscape has been understated and the value/heritage significance of HLT3 should be high as a consequence of its high evidential, historical and aesthetic values and medium communal value. The Dame Sylvia Crowe Landscape (HLT3) is historically, functionally and aesthetically linked to the adjacent existing power station (HLT8) and is also contained within the Wylfa Cultural and Historic Aspect Areas assessed in *LANDMAP* to be of Outstanding cultural and historic significance (CL010 and HL055). Therefore, the medium value ascribed to HLT3 does not accord with the high value given to HLT8 which forms the remainder of these aspect areas.
- 4.42 An increase in the value of the Dame Sylvia Crowe Landscape to High, means that HLT3 is, for the purpose of understanding harm to heritage assets, of equivalent significance to a designated historic landscape.
- 4.43 IACC agrees that the magnitude of the effects on the Dame Sylvia Crowe landscape (HLT3) during construction would be medium arising from the loss of some of the woodland and stone walls that formed part of the original landscape design (direct effects) and also from changes that would occur in the adjacent historic landscape types (HLT8, HLT9 and HLT10) (indirect effects).
- 4.44 However, because of a High value noted above, the significant adverse effects would be greater than predicted in the ES and any harm to the significance of this asset should be minimised as much as possible and the residual effects weighed against the public benefits of the proposed scheme in line with NPS EN-1 para 5.8.15.
- 4.45 No assessment is provided of the operation or decommissioning effects. During the operational phase, the restoration of the agricultural/pastoral landscape around the plant would re-establish a relationship between the Dame Sylvia Crowe Landscape and its wider context. There would be a change to this relationship arising from the presence of the proposed Wylfa Newydd Power Station and the changed appearance of the restored landscape and this would result in a reduced magnitude of lasting change, although the loss of key areas of the Dame Sylvia Crowe Landscape would persist.
- 4.46 At present, there is an intention in the Landscape and Habitat Management Strategy (para 6.5.17) to retain and enhance 17ha of the woodland to the east of the existing power station. It would be possible to partially mitigate the loss of historic interest through the inclusion of this area in the detailed landscape and habitat restoration scheme and management plan with detailed and sensitive proposals for re-establishing the surrounding landscape and sensitively altering/extending the Dame Sylvia Crowe

landscape. This would reflect the original design intent and would allow the adverse changes during the operational phase to be reduced to a non-significant magnitude.

- *Summary of additional information required*
- Legible copies of Dame Sylvia Crowe's plans (Plates 4 and 9 – 15 in ES Appendix D-11).
- *Summary of Mitigation and Compensation Measures to be secured in the DCO*
- A survey of the Dame Sylvia Crowe Landscape prior to the commencement of the construction phase to identify the species composition, ages, condition, etc. of the woodlands and all other surviving elements of her design, and the measures necessary to protect and enhance this landscape.
- Measures to safeguard (from physical damage and the effects of dust, vibration, changes to water quality, light pollution, etc.) and to enhance the essential elements of the Dame Sylvia Crowe Landscape during the construction phase, to be incorporated into, for example, the CEMP and any construction phase landscape schemes.
- Measures to protect, enhance and extend the essential elements of the Dame Sylvia Crowe Landscape during the operational and decommissioning phases, to be incorporated into the outline and detailed landscape and habitat restoration schemes, the detailed landscape management scheme and the decommissioning schemes for the WNDA.

Landform Mounds

4.47 The application includes the development of landform mounds to provide effective visual, lighting and noise screening and protect views from Tregele, Cemaes, Cemlyn, the Wales Coast Path, the Anglesey AONB, the Heritage Coast and Cestyll Gardens, amongst others.

4.48 The Landscape and Habitat Management Strategy (LHMS) confirms that the DCO adopts a parameters-based approach which secures the locations, maximum heights Above Ordinance Datum and maximum gradients for the landform mounds during construction phase.

4.49 IACC seeks confirmation in the DCO of the minimum parameters (height and gradient) for these landform mounds in order to ensure that they fulfil their purpose for screening and protection purposes and reflect the local drumlin landscape and the unique sense of place of North Anglesey.

4.50 IACC has confirmed both in its PAC consultation responses and during its attendance at the Horizon Waste and Materials Oversight Group that it considers that the project should adopt a sustainable approach in utilising site won materials and inert wastes in line with the aims of National and Local policies to conserve natural resources and increase the proportion of supply of aggregates from recycled, secondary and waste/alternative aggregates.

4.51 It has encouraged Horizon to utilise the inert wastes e.g. overburden, clays, soils, dredging's in the construction of the landforms and to utilise the rock won on site

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efficiently for onsite construction purposes e.g. general concrete, fill, cladding, roads, armour stone, cofferdam creation. The IACC discourages the disposal/deposit of site won stone/rock/secondary aggregate in low specification end-uses such as the engineered landform. In line with the aspirations of sustainable development as set out within Mineral Technical Advice Note 1 - Aggregates (MTAN1), Planning Policy Wales and the Gwynedd and Môn Joint Local Development Plan the IACC sees opportunities for Horizon to utilise site won rock as an alternative aggregate supply on other national, regional and local construction projects that may be undertaken at similar timescale, with material exported by sea.

- *DCO requirements*
- Minimum and Maximum (interim construction and final operational phase) profiles for the landform mounds, including heights and gradients to be approved by the LPA

Visual impacts upon residential visual receptors

- 4.52 Although IACC acknowledges that the selection of viewpoints was agreed with the Council in 2015, it does not now accept that the selection of representative viewpoints for the communities of Cemaes and Tregle is suitable. This is because of the subsequent evolution of the construction and operational phases and design for the Power Station Site which have had the consequence that this limited selection of viewpoints no longer allows it to be confident that the viewpoint selection facilitates a comprehensive assessment of all the construction and operational phase visual effects upon all members of these two communities. Essentially, the magnitude of visual change will vary considerably for visual receptors within both communities.
- 4.53 Significant visual effects upon the community of Tregle for the construction and operation period Year 1 have been concluded by Horizon but they are not significant for operation period year 15 due to long-term landscape management in the closest parts of the WNDA. This assessment cannot be verified without supporting evidence. IACC considers that the provision of photomontages would be the most suitable means by which Horizon can support their assessment (further detail provided below). If this evidence is not provided, IACC will confirm that significant adverse visual effects will be sustained by a proportion of residents in the community of Tregle.
- 4.54 While IACC agrees that significant adverse visual effects will be sustained upon the community of Cemaes during construction stage, it concludes that at least at Viewpoint 16 (west side of Cemaes) there will be significant visual effects for the operation period. The additional photomontages (further detail provided below) will allow IACC to gain a more detailed understanding of the variation in the visual impacts that will be sustained by the community of Cemaes.
- 4.55 In view of the above it is concluded that the current visual assessment does not allow the full range of potential additional mitigation and/or compensation measures to be examined and comprehensively identified.
- *Summary of additional information required:*
 - Two viewpoints that have been defined as illustrative viewpoints should be redefined as representative viewpoints. This would require that the visual impacts upon receptors at or close to these locations are included in the assessment

contained in the visual effects schedule in Appendix D10-07. These are Illustrative Viewpoints F and G in Cemaes.

- Two new Representative Viewpoints have been identified – one in Cemaes (on Gwelfor in eastern Cemaes) and one in Tregle (at the south-eastern end of Cae Garnedd).
- It is proposed that to allow a more detailed understanding of the visual effects within the two communities, photomontage visualisations should be provided from these four new Representative Viewpoints and an existing Representative Viewpoint – Viewpoint 18 in Tregle (~SH35619263).

The details of the four additional Representative Viewpoints requested are:

Tregle – south-eastern end of Cae Garnedd. *This location allows consideration of the type of partially framed and screened views towards the Wylfa Newydd Power Station in the new power station site to the north-west. In addition, the viewpoint shows views to the south-west that are available to a proportion of the residents in Tregle in which the simulator and training building, the visitor centre and the new access road island on A5025 are likely to be visible. Grid Reference SH35699248.*

Cemaes – Western end of Ffordd y Traeth in Penrhyn. *This location has been included in as Illustrative Viewpoint F in Appendix D10-05 however the Council concludes that it is at least as representative as Viewpoint 13 which is the only other viewpoint in north-western Cemaes/Penrhyn. Viewpoint 13 is representative of views from this section of the Wales Coast Path as opposed to north-western Cemaes/Penrhyn. Viewpoint F has a wider angle of view and is more representative of the western and south-western views that are available to residents in properties in this part of the community of Cemaes who at present are only represented by Viewpoint 16 which is further to the south. Grid reference SH36749372.*

Cemaes – A5025 (Ffordd Caergybi) just east of junction with Maes Capel. *This is very close to the location of Illustrative Viewpoint G in Appendix D10-05. The Council considers that a representative viewpoint (and a photomontage) be provided in the south-western part of Cemaes. It is acknowledged that the density of residential development combined with the limited tree and shrub towards the south-western edge of settlement are likely to result in only highly partial and framed views being available from publicly accessible locations in this part of Cemaes. The role of Mound A is a key visual issue and can be better understood by provision of a representative viewpoint at this location with Viewpoint 16 being ~330m to the north. A photomontage would allow a stronger understanding of the visual impacts from the construction of Mound A (even though it is acknowledged that photomontages are not being provided for the construction period) and its subsequent effectiveness in screening the main built development for residents in this part of Cemaes as well as how the partial screening and framing of views provided by the built development in south-western Cemaes impacts upon some residents' views. The proposed Representative Viewpoint is a slight variation from Illustrative Viewpoint G. The variation is requested to maximise the availability of partial framed views between properties on Maes Capel. Grid reference SH36679308.*

Cemaes – Pavement outside No.9 Gwelfor in eastern Cemaes. *In the DCO application residents and visitors in the eastern part of Cemaes are solely*

represented by Viewpoint 12 which is on the northern edge of the group of residential properties in eastern Cemaes. This proposed additional Representative Viewpoint has been selected to show the availability of views from within this elevated group of residential properties. A photomontage would add to the information contained in the photomontage from Viewpoint 12, especially the visual role of the formation of Mound A in the construction period and its subsequent role in the operation period in screening community views of the main built development. Grid reference SH37329329.

- Construction period wirelines of formation of Mounds A and B – the five reference point drawings in the LHMS and Vol 2 Part 1 of the DCO Plans, Section and Drawings Book do not show how Mounds A and B evolve over the initial part of the construction period. Nor do they confirm if the Mounds are to be developed incrementally, as a series of phases or in one short-lived continuous phase. They are not present on Reference Point Dwg 2 (SPC) and are almost fully formed on Reference Point 3 – Construction. The Phasing Sequence set out in Figure 2.1 in the Phasing Strategy Document shows that the Mound B Noise bund (which is assumed to be the 7m high preliminary component of Mound B) will be completed by end of construction year 1 and Mounds A, C, D and E will be completed by end of construction year 2 (notwithstanding some partial regrading later on construction phase).

To gain an understanding of how quickly Mounds A and B will be constructed and begin to fulfil their visual screening role for community receptors in Cemaes and Treglele, IACC requests that Horizon provides a wireline visualisations at the end of construction year 1 from the viewpoints listed below:

- *Viewpoint 16 - Cemaes;*
- *Viewpoint F – Cemaes;*
- *Viewpoint G – Cemaes; and*
- *Viewpoint 18 – Treglele.*

The wirelines should be imposed upon the winter baseline photography. By the end of construction year 2 the mounds should be at the height as shown on operation year 1 and operation year 15 photomontages.

- *Summary of Mitigation and Compensation Measures to be secured by the DCO*

- IACC considers that there is opportunity for the inclusion of additional mitigation measures related to localised improvements in Cemaes and Treglele.

The DCO should ensure the provision of resources to provide for further additional mitigation measures to be secured for both the construction and operational phase which would include a commitment for further landscape design comprising additional screening, changes to the management of existing planting, and the provision of blackout blinds. This could be through the provision of a Community Environmental Fund. Such a fund would need to be available for the duration of the construction phase and a minimum of 5 years thereafter during the operational stage.

The most appropriate means of identifying, implementing and then managing potential off-site impacts would be to undertake consultation at key periods throughout the construction and operation periods. The consultation would allow for a suite of potential screening solutions to be offered, allow for discussion regarding long-term management

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and visual assessment of the solutions. The detailed development of effective mitigation and improvement would be aided by the additional photomontages and construction period wireframes that IACC have requested.

- Further compensation measures are also required which focus upon the identification and implementation of enhancement measures in and around these communities which could include improvement in signage and interpretation facilities on the PRow network and in public areas, improved planting and street furniture in public areas and improvement to the green infrastructure network within and between the communities. The compensation measures should be consistent with IACC's wider recreation and access strategies as set out in the ROWIP 2008-2018 and the replacement ROWIP once approved as well as the AONB Management Plan.

- Adoption of Colour Scheme

- 4.56 IACC considers that colour is an important tool to help bring a coherent architectural language to the Wylfa Newydd Power Station site. Colour should be applied to all buildings and structures, where practicable within operational and engineering constraints, to give order and cohesion to the New Power Station and on-site buildings.
- 4.57 Inspiration should be taken from the colours of the surrounding landscape and the existing Wylfa Magnox Power Station, to create a development that appears connected and integrated.
- 4.58 The Design and Access Statement (DAS) for the WNDA that forms part of the DCO application provides a moderate amount of information on the development of the main concept of the colour scheme for the principal buildings in sections 3.1.13 – 3.1.19 whilst sections 4.1.22 - 4.1.32 outline the concept of 'blending together' the two concepts of a principle naturalistic colour scheme based upon the Island's geology with some elements, including the reactor buildings, having a so-called strong expression of colour.
- 4.59 There remains some uncertainty about Horizon's selection of the final colour scheme (natural approach/iconic approach or a combination of the two termed 'blended' in Section 4 of the DAS).
- 4.60 The DAS does not provide detailed information on the colour scheme to be adopted, the range of colours to be employed nor how these will be applied to different built components for the construction or the operation periods.
- 4.61 The photomontages submitted as part of the DCO application show all the components of the New Power Station Site, MOLF and breakwaters with a neutral grey finish. The use of a universal neutral colour for all operation period buildings in the photomontage visualisations does not allow the landscape and visual effects of the proposed adopted colour scheme to be fully assessed.
- 4.62 The visual assessment utilises the adoption of a naturalistic colour scheme as an additional mitigation measure that for some receptors is assessed as reducing the magnitude of visual change for the operation period and occasionally for the construction period as well (Visual Effects Schedule [Appendix D10-7]). Due to the lack of illustration of the naturalistic colour scheme within the application assessment documentation, the IACC cannot confirm if this adoption of this colour scheme can be used as justification for a reduction in the significance of residual visual effects for visual receptors at eight viewpoints.

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4.63 The IACC requests that Horizon demonstrates the application of its preferred colour scheme(s) in a format that allows an understanding to be made of how the preferred colour scheme will appear in the wider visual context and to enable it to determine how effective the preferred colour scheme will be at reducing impacts. The IACC recommends that photomontages are submitted to demonstrate that these assessments of the effectiveness of the colour scheme are justified as opposed to having a neutral grey finish applied to all built components.

- *Summary of additional information required*

- Horizon to demonstrate the application of its preferred colour scheme(s) in a format that allows an understanding to be made of how the preferred colour scheme will appear in the wider visual context.

- *Summary of Mitigation and Compensation Measures to be secured by the DCO*

- DCO requirement that all elevational and roofing materials be submitted to and approved by IACC prior to their use on site.

- **Landscape Design Principles**

4.64 In the opinion of IACC the Landscape Design Principles set out in the Landscape and Habitat Management Strategy (LHMS) lack sufficient detail regarding the principles for both the construction and operational phases of the development. Further detail is required as the landscape design proposals within the WNDA are a critical component of mitigating the potential visual and landscape impacts of the project during both the construction and operational phases.

4.65 *Field Boundaries* - The DCO application includes a Tree (and Hedgerow) Survey and the Site Preparation and Clearance drawings (2.6.4) show trees, hedgerows and woodlands to be removed. However, there is not a survey that identifies the other field boundaries (i.e. cloddiau, stone walls, fences, etc.) within the WNDA site and the number of trees and lengths of all the various field boundaries which are to be either retained, removed or reinstated. This information is required to inform the LHMS and detailed landscape schemes.

4.66 *New planting* – The DCO application does not include details of the sizes, densities and quantities of the various tree, shrub and other species to be planted. IACC notes that detailed planting plans will need to be submitted to and approved by the Council as part of a DCO requirement but overall sizes, specification and quantities of each of the various species to be planted on the site are needed to understand and assess the feasibility of the planting scheme.

4.67 *Sources of plants and seeds of regional and local provenance* - IACC considers that by “local”, Horizon is referring to the Isle of Anglesey and by “regional” to North West Wales. In view of the likely quantities of plants and seeds needed to achieve the LHMS, further information is required on the sources of plants and seeds of regional and local provenance and the likely quantities that each supplier would be able to provide. For example, Horizon should confirm whether it is intending to let contracts to plant nurseries to grow stock well ahead of the planting phases. Consideration should also be given to

establishing a plant nursery on the Island to ensure that plant and seed stock of local/regional provenance is available as and when required and is acclimatised to the local conditions before being planted on the site.

4.68 *Works to be undertaken to retain and enhance the existing field boundaries (vegetation and walls) around the perimeter of the WND A site* - There is a stated intention to retain and enhance these existing field boundaries, commencing at the site preparation and clearance stage (LHMS, Section 5.2). IACC notes that a detailed scheme(s) for this work will need to be submitted to and approved by the Council as part of a DCO Requirement but further information is required on the planting and other measures to be undertaken to inform the drafting of the DCO Requirement for these enhancement schemes.

- *Summary of additional information required*

- Details of the approximate sizes, specification and quantities of each of the various species to be planted on the site as part of the LHMS to understand and assess the feasibility of the scheme.
- Confirmation of the likely sources of local and regional provenance seeds and plants and the approximate quantities that each supplier would be able to provide.
- An outline scheme of works to be undertaken to protect and enhance the existing field boundaries around the perimeter of the WND A.

- *Summary of Mitigation and Compensation Measures to be secured by the DCO*

- A survey of the other field boundaries (i.e. cloddiau, stone walls, fences, etc.) within the WND A site and the number of trees and lengths of all the various field boundaries to be retained, to be removed and to be reinstated.
- Outline and detailed landscape and habitat schemes to restore the site at the end of the construction phase, a detailed landscape management scheme for the duration of the operational phase and a detailed landscape restoration and management scheme to be implemented during the decommissioning phase for the WND A. All documents to require the prior approval of IACC.
- **Long-term commitment to the on-going management and maintenance of all the landscapes and habitats**

4.69 IACC considers that a long-term commitment to the on-going monitoring, management and maintenance of all the landscape and habitats within the WND A, as well as on associated development sites, is crucial in order to satisfactorily evidence and ensure the success of the mitigation.

4.70 IACC considers that the monitoring, management and maintenance of the landscape and habitats within the WND A and associated development sites, needs to be a commitment for the duration of the construction phase, the 60 year operational life of the scheme and the decommissioning phase.

4.71 The principles of the management of the landscapes and habitats within the WND A are outlined in the LHMS and there is a draft DCO requirement to submit management and

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maintenance schemes to the relevant planning authority for approval for certain parts of the site. This requirement needs to apply to the entire project and to the duration of the construction, operational and decommissioning phases.

- *Summary of Mitigation and Compensation Measures to be secured by the DCO*

- Details of the Management and Maintenance scheme for all the landscape and habitats within the WNDA and on associated development sites to be approved by IACC. The scheme shall be for the duration of the construction, operational and decommissioning phase

- **Maintaining Public Access**

- 4.72 Reference should be made to our letter titled 'Review of Horizon's DCO Application (Tourism)' dated 19th September 2018 which provides comments on relating to the need for the project to maintain public access.

5. Waste and Materials Management

- 5.1 National and local planning policy and other plans and programmes at a European, national, regional and local level focus on the need to ensure that waste is managed in accordance with the waste hierarchy and proximity principle. The SPG (4.8.1) confirms that the Wylfa Newydd project should support the delivery, aims and targets of Towards Zero Waste, the overarching waste strategy in Wales and the suite of supporting sector plans which aim to reduce the impact of waste in Wales to within environmental limits.
- 5.2 Policy GP17 of the Wylfa Newydd SPG confirms that a Site Waste Management Plan must be provided for all sites to promote the sustainable management of waste in accordance with the waste hierarchy and reduce the transportation of waste during construction and operation. The SPG also confirms the need for the project to promote and demonstrate that the waste management activities associated with the Wylfa Newydd project, either alone or in combination with other proposals, will not adversely affect the environment or human health.
- 5.3 In terms of the assessment of Forecast Future Waste Arising's that will require off-site processing and management (including hazardous and non-hazardous) during the construction, operational and decommissioning stage, IACC considers that in establishing existing waste management capacity, reliance has been placed on out of date/inaccurate information which has resulted in some significant gaps in the reporting. In particular, IACC considers that the assessment approach is flawed as the establishment of available capacity has been based on a review of NRW permits. Using permits to establish capacity level runs the risk that capacities are over-stated. In this context, failing to consider limits associated with extant planning consents/permissions to establish the available waste management capacity is a significant data gap in the assessment methodology.
- 5.4 The assessment approach also considers the ability of the North West of England's capacity to absorb waste arisings. Although useful as a consideration of alternatives, it does not consider the ability of the waste management framework within Wales in isolation to adequately deal with the range and volume of waste arisings.
- 5.5 With regard to the decommissioning stage, no supporting assessment has been submitted as to the composition and volumes of wastes generated and its effects on the

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region's waste management infrastructure. It is unclear why this assessment has not been carried out.

- 5.6 IACC requires a more robust and complete assessment in respect of forecasting future waste arisings and the available capacity within the region to deal with it. This is required to assess the extent and effects that the proposed development may have on local waste management infrastructure and its ability to absorb the additional waste material that may be generated during the construction, operation and decommissioning stage.

- *Summary of additional information required*

- A complete assessment in respect of forecasting future waste arisings and what available capacity there is within the region to assess the extent of the effect of the proposed development on local waste management infrastructure and its availability to absorb any waste material suitable for re-use, recycling, composting or anaerobic digestion generated during the construction, operation and decommissioning stage.

- 5.7 IACC can further advise on capacity once the above additional information has been reviewed.

6. Flood Risk

- 6.1 The ES, Chapter D8 confirms that the development, through modifying and increasing catchment areas at the WNDA, will result in an increase in flood risk to receptors on the Nant Cemaes (Brookside Garage and adjacent residential properties) during both construction and operational phase.

- 6.2 The FCA confirms that '*the outline landform and drainage scheme should be revised at detailed design stage so as not to exacerbate any existing flood risk*'. The ES goes on to confirm that with more detailed assessment including hydraulic modelling and mitigation design detail that effects to identified receptors will be reduced to negligible.

- 6.3 IACC, as well as NRW, is concerned that without the detail of the mitigation design included as part of the DCO it cannot be confirmed that mitigation measures are feasible and can be delivered to mitigate the increased flood risk, at both the construction and operational phase.

- 6.4 NPS-EN1 (para 5.7.21) specifically states that "The surface water drainage arrangements for any project should be such that the volumes and peak flow rates of surface water leaving the site are no greater than the rates prior to the proposed project, unless specific off-site arrangements are made and result in the same net effect." This point is reiterated by PPW para 13.2.4.

- 6.5 Horizon should provide further detail to demonstrate that increased flood risk can be managed and that the proposals are compliant with NPS-EN1 and TAN15 in addition to local development plan policy.

- *Summary of Additional Information Required*

- Further detail of the mitigation design detail to be provided by Horizon to demonstrate that the development will not lead to an increase in flood risk.

7. Surface Water and Groundwater

- 7.1 The ES, Chapter D8 confirms that following mitigation (embedded, good practice and additional), changes to surface water and groundwater quantity may still pose a risk to receptors, which include Afon Cafnan, Nant Cemaes and Nant Cemlyn during the operational phase, with the effects confirmed as remaining as Moderate Adverse due to uncertainty.
- 7.2 The ES confirms that Horizon will develop a passive engineered solution of the drainage system, with the system matching baseline conditions as closely as practicable possible and in agreement with the regulator as part of the final landform design. There is a need to acknowledge that sensitive ecological receptors (low flows) and flood risk receptors (high flows) will not be adversely affected.
- 7.3 Without further detail of the mitigation design included as part of the DCO the success of the mitigation proposals cannot be determined, including the likelihood of the system matching existing baseline conditions, as close as practically possible.

- *Summary of Additional Information Required*

- Further detail of the mitigation design detail to be provided by Horizon to demonstrate that mitigation can be implemented successful, and to confirm that the drainage system will match existing baseline, as close as practically possible.

8. Cemaes Bathing Water

- 8.1 IACC is aware that NRW have confirmed in their relevant representation that they do not agree with the conclusion that *'there are no effects predicted on the bathing water at Cemaes, and that the Wylfa Newydd Project is considered to be compliant with the Bathing Water Directive'*.
- 8.2 It understands that NRW is concerned that the discharge of elevated suspended solids and sewage discharged into the marine environment has the potential to affect Cemaes Bathing Water.
- 8.3 Cemaes Bathing Water has already been classified as poor in 2016 and 2017 due to diffuse pollution from agricultural land within the catchment. Incoming tides also reduce dispersion from within the bay. The beach lies within the Anglesey Area of Outstanding Natural Beauty and part of the beach is within the North Anglesey Heritage Coast. The IACC considers the water quality at Cemaes to be 'at risk' due to having been classed as 'poor' and non-compliant in 2016 and 2017 bathing seasons. Thus, any further deterioration in microbial quality due to developments at Wylfa could be deleterious to future EU compliance and impact on the coastal community which is heavily dependent on tourism.
- 8.4 A Cemaes Bathing Water Task Group has been formed, which includes representation from the IACC. IACC encourages Horizon to engage with this group. The group has developed a detailed model to predict bathing water quality and IACC requires commitment from Horizon to enable it to continue to run this model during the bathing season. This should include a commitment to install a met station at a location to be agreed with the Council.

- 8.5 Horizon should fully respond to the concerns of NRW as outlined in their relevant representation and prepare the further assessment as detailed in the representation to inform and appropriate mitigation measures.

9. Soils and Geology

- 9.1 Chapter D7 of the ES confirms that a soil resource survey will be undertaken by the contractor prior to the commencement of soil stripping and earthworks and that various soil handling good practices would be followed. Mitigation measures are also detailed in the Code of Construction Practice (CoCP).
- 9.2 However further detail regarding enforcement and precision is required in the CoCP including the need for the Council to review and accept the soil resource survey. For example, the CoCP confirms that soil handling works will cease when soil moisture exceeds a specific limit. There is a need to confirm that these limits will be set out in the Soil Management Plan, which should be subject to review and acceptance by IACC.
- 9.3 The application's assessment that a minor adverse effect would occur across the range of soil receptors during construction and operation is considered appropriate if soil stripping and management is appropriately controlled.
- 9.4 In terms of geology, the application confirms a medium magnitude and moderate adverse effect on Porth Wnal Dolerite RIGS, a medium value asset because of the construction of the cooling water outfall. Due to the restriction in access due to security, the educational value of the RIGS would be reduced, such that a medium magnitude and moderate adverse effect would occur.
- 9.5 It is recognised that mitigation is proposed in the form of access for students/geologists 'as operation allows' and installation board to be erected. The full detail of this mitigation and compensation scheme needs to be discussed further.

- *Summary of Additional Information Required*

- The CoCP to be amended to include further detail regarding enforcement and precision.

- *Summary of Mitigation and Compensation Measures to be secured by the DCO*

- The Soil Resource Survey to be submitted and approved by IACC.
- The Soil Management Plan to be submitted and approved by IACC, and to include details of soil moisture exceedance limits

10. Statutory Nuisance

- 10.1 As confirmed in the Statement of Statutory Nuisance that forms part of the DCO application, the Wylfa Newydd project (construction, operation and decommissioning phase) could give rise to potential statutory nuisance caused by noise and vibration, air quality and odour and light pollution.
- 10.2 In order to ensure that the construction activities cause minimal disturbance to human receptors, the IACC considers that the implementation of the monitoring mechanisms detailed in the Wylfa Newydd CoCP which are commented on below is crucial.

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IACC has commented separately on the potential effects of the construction activities by noise and vibration, air quality and odour and light pollution on the natural and historical environment in the relevant sections, where relevant to the interests of IACC.

- 10.3 IACC supports the formation of a Community Liaison Group as confirmed in the Wylfa Newydd CoCP, although the Terms of Reference of this Group will need to be agreed with the Council. IACC recognises the ability of the Group to be a valuable mechanism in which communities can be informed of forthcoming works and in which Horizon can respond directly to community concerns due to matters arising from construction works. IACC will require that a representative of the Public Protection department shall attend each and every one of the meetings in order to respond to any potential Environmental Health related concerns and would request that Horizon confirm this appointment.
- 10.4 It is noted that the meetings are to be quarterly evening meetings, or as required. The IACC considers that these meetings are required monthly during the bulk earthworks, with frequency then to be subject of further agreement with the Council. This is to ensure that the public are given the opportunity to comment on construction concerns and Horizon to respond to alleviate the concerns. This is in addition to the ability of the public, the IACC and other stakeholders to gain access to a direct and free complaint telephone hotline to be able to raise concerns/issues as soon as they arise. A complaints register should be maintained by Horizon and it should be available to IACC upon request.
- 10.5 IACC also considers that this Group as well as other means of communication including social media can be beneficial in disseminating information including informing the nearby residents of the upcoming construction work.
- Summary of Mitigation and Compensation Measures to be secured by way of DCO requirement;
 - The Terms of Reference of the Community Liaison Group, including frequency to be approved by IACC.
- **Code of Construction Practice (CoCP)**
- 10.6 The Wylfa Newydd CoCP and sub Co-CPs are intended to confirm Horizon's commitment to mitigating the construction-related environmental effects and controlling potential impacts of the project on people, businesses and the natural and historic environment.
- 10.7 As confirmed below, IACC considers that there is insufficient detail in the CoCP and sub CoCPs submitted with the DCO application to demonstrate that construction activities will be managed appropriately. The DCO should include a requirement for a detailed CoCP and Sub CoCPs to be agreed with IACC, in consultation with NRW prior to the commencement of the development.
- *Summary of Mitigation and Compensation Measures to be secured by way of DCO requirement*
 - Detailed CoCP and Sub CoCPs to be agreed with IACC, in consultation with NRW prior to the commencement of the development.

- **Code of Operational Practice**

- 10.8 IACC acknowledges that the Code of Operational Practice (CoOP) covers the operational phase of the permanent elements of the Wylfa Newydd project. It is noted that although the CoOP covers the environmental management requirements for the operational phase, it does not replicate the separate requirements of the Nuclear Site Licence or Site's Environmental Permits.

- **Air Quality, Dust and Odour**

- 10.9 A range of activities that are to be carried out as part of the construction phase of the WNDA have the potential to cause effects on air quality. The principal concerns for air quality through the construction phase relate to dust, nitrogen dioxide, fine particulate matter (i.e. PM_{2.5} and PM₁₀) and odour. This, in part, relates to the low baseline conditions for other pollutants such as carbon monoxide and sulphur dioxide within the study area.
- 10.10 It is noted that to prevent significant effects across the Wylfa Newydd DCO Project, a comprehensive Air Quality management, monitoring and reporting scheme is to be developed for human receptors in consultation with IACC.
- 10.11 IACC welcomes the commitment by Horizon to implement a real time web-based environmental monitoring system, with the IACC having access.
- 10.12 IACC acknowledges that brief detail of the proposed monitoring is included within the CoCPs and Sub CoCPs. The Council requires further detail set out in the CoCPs and sub CoCPs with regards to the detail of this system, the location of monitoring equipment, confirmation of the thresholds and exceedance trigger levels for dust, NO₂, NO_x, PM₁₀ and PM_{2.5}, and frequency of reporting.
- 10.13 Amber and red trigger levels will need to be set for the PM₁₀ concentrations based on preventing exceedances of the 24-hour mean air quality objective to control long term increases in particulate concentrations as far as reasonably practicable. The thresholds will be agreed with IACC.
- 10.14 As confirmed in ES Chapter B5, IACC has raised concerns regarding potential increases in PM_{2.5} concentrations and the use of the annual mean air quality objective of 25µg/m³ as the assessment criteria.
- 10.15 StatWales¹ confirmed a PM_{2.5} level of 5µg.m³ for Anglesey in 2016 which was the lowest level in Wales during this year. This is considerably lower than the WHO guideline value.
- 10.16 As consistently confirmed, IACC expects Horizon to adopt the World Health Organisation (WHO) Guideline Value of 10µg/m³ for PM_{2.5} in order to keep the levels of pollution as low as reasonable practicable.
- 10.17 The Air Quality Standards (Wales) Regulations 2010 have the objective to improve air quality by reducing the impact of air pollution on human health and ecosystems.
- 10.18 The potential for health effects due to increases in NO₂ and particulate (PM_{2.5} and PM₁₀) concentrations, which considers the non-threshold effects of these pollutants, is assessed as part of the Health Impact Assessment Report.

¹ <https://statswales.gov.wales/Catalogue/Environment-and-Countryside/Air-Quality/airqualityindicators-by-localauthority>

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- 10.19 As stated in Horizons Air Quality ES Chapter B5, in national air quality policy guidance, there is a growing body of research that suggests that NO₂ and particulates, in particular PM_{2.5}, are closely associated with health impacts, and that there is a lack of evidence to indicate that there is a concentration below which health impacts do not occur including the Local Air Quality Management in Wales, Policy Guidance. Welsh Government. June 2017 and Local Air Quality Management Policy Guidance (PG16). April 2016 Defra: London.
- 10.20 The Local Air Quality Management in Wales Policy Guidance (LAQM) (June 2017) describes that NO₂ and particulates (PM_{2.5} and PM₁₀) currently have no safe threshold defined and the lower concentration of these pollutants the lower the risks of adverse health effects. It states: *"Therefore, while compliance with the national air quality objectives is essential, it is desirable to keep levels of pollution as low as reasonable practicable."*
- 10.21 The LAQM also refers to the World Health Organization air quality guideline value of 10µg/m³ and that there is little evidence that there is a threshold below which no adverse health effects would be anticipated.
- 10.22 ES Chapter B5 confirms that Horizon's quantitative assessment of PM_{2.5} has been undertaken based on the AQO of 25µg/m³ (see paragraph 5.4.135). However, the proposed good practice mitigation is intended to reduce any temporary increases in particulate concentrations from construction activities, including PM_{2.5}, to as low a level as is reasonably practicable, which accords with the policy guidance.
- 10.23 IACC acknowledges the proposed good practice mitigation that is intended to reduce the increases in particulate concentrations, including PM_{2.5}, to as low a level as is reasonably practicable, which accords with the LAQM policy guidance. This would include continuous monitoring and the setting of appropriate alert thresholds and mechanisms for identifying areas or activities emitting particulates and taking further action to prevent or reduce emissions. The provision for the monitoring and feedback mechanisms are set out in the air quality management strategy.
- 10.24 However, the IACC does not consider that the adoption of the Air Quality Objective of 25µg/m³ for PM_{2.5} is satisfactory for assessment, determination of significance and monitoring as this level is considerably higher than the existing PM_{2.5} levels on Anglesey and does not meet the Welsh Government objective of keeping levels as low as practically possible and lowering the risks of adverse health effects in the exposed population. Any increase in levels will have a harmful effect on health as well as have a detrimental impact on tourism and perception.
- 10.25 IACC has advised that consideration be given within the assessment of road traffic emissions to relevant short-term exposure locations close to the A55. Road traffic on the A55 is expected to increase as it forms part of the project's prioritised route. It is noted that a layby on the A55 at Llanfairpwll has been included as a receptor within the air quality assessment.
- 10.26 As confirmed in the ES, Chapter B5, NO₂ concentrations have shown a general decline since 2010, which could be linked to decrease in traffic flows on the A55, which have been decreasing since 2007.

- 10.27 As confirmed in ES Volume C4 Air Quality effects of traffic, IACC has measured annual mean NO₂ concentrations of 39.7µg/m³ at a layby off the A55 at Llanfair Pwllgwyngyll in 2016 (close to receptor R36). The predicted future baseline concentration at the edge of the layby closest to the A55 carriageway in 2020 is 39.4µg/m³, and this is predicted to increase to 40.8µg/m³ due to the Wylfa Newydd Project road traffic emissions (R36). The Assessment confirms that these values are considerably lower than the empirically derived value of 60µg/m³ and an exceedance of the one-hour mean AQO is very unlikely.
- 10.28 IACC is requesting that Horizon commits to the implementation of continuous monitoring systems at the layby location to ensure that the one hour mean AQO for NO₂ be monitored real time for exceedances as a result of additional traffic. 'A strategy will need to be approved for intervening and preventing any further exceedances should the monitoring confirm any exceedances. Measures must be agreed with IACC.
- 10.29 Horizon's air quality assessments also confirm that measurements undertaken at a layby location very close to the kerbside of the A55 (east bound carriageway) to the southeast of the Britannia Bridge indicate that annual mean concentrations could exceed 60µg/m³ [RD6]. On this basis, there is the possibility that the one-hour mean AQO value of 200µg/m³ could be exceeded more than the permitted 18 times in the year at this short-term exposure location. The ES confirms that a further consultation meeting with Gwynedd Council is planned to review the full monitoring dataset once 12 months of data have been recorded and to agree further monitoring and assessment work.

○ *Summary of Additional Information Required*

- Further details on the monitoring and reporting of air quality and dust to be agreed with the IACC. This is to include the agreement of thresholds and trigger exceedances.
- The adoption of the World Health Organisation (WHO) Guideline Value of 10µg/m³ for PM_{2.5}.
- That Horizon commits to the implementation of continuous monitoring systems to ensure that the one hour mean AQO for NO₂ be monitored real time for exceedances.

- **Noise & Vibration**

- 10.30 A range of activities that are to be carried out as part of the construction phase of the WNDA have the potential to cause noise and vibration effects.
- 10.31 As confirmed there is no set noise level above which a nuisance may be deemed to have occurred and a commonly used defence in response to a noise nuisance action is to demonstrate that all reasonable means to reduce or control the effect of the noise has been employed i.e. best practicable means.
- 10.32 The embedded and good practice mitigation that is considered in the Noise and Vibration assessments is noted and is secured in the Wylfa Newydd CoCP.
- 10.33 It is also noted that considering the embedded and good proactive mitigation, the assessment concludes that major adverse significant effects from the construction noise would be experienced by 308 residential receptors, 1 commercial receptor and 1 hotel. Further, moderate adverse effects (which are also significant) were predicted at 843

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residential receptors, 1 school, 4 hotels and 1 place of worship. The assessment also concludes major adverse effects from vibration at residential properties adjacent the WNDA. It is noted that additional mitigation has been considered to reduce the number of significant effects, detailed in the Wylfa Newydd CoCP.

- 10.34 One direct method of controlling noise and vibration shall be the need for Horizon to apply to the IACC for Prior Consents under Section 61 of the Control of Pollution Act 1974 for all construction work. Each application will need to contain particulars of the works to be undertaken, the working methods and the details of the plant to be used to undertake the work. Details will also need to be submitted of the proposed noise and vibration control measures. Such applications will also need to be supported by vibration risk assessments which would confirm that safe working distances, or alternatives compaction techniques, can be deployed. With the addition of this mitigation Horizon concludes that the significance of vibration effects would be moderate adverse at the WNDA.
- 10.35 IACC welcomes the commitment by Horizon to implement a real time web-based environmental monitoring system, with IACC having shared access. This will include for monitoring of local representative of noise sensitive receptors to ensure that construction levels will remain below those permitted under the intended Section 61 approval. IACC acknowledges that brief detail of the proposed monitoring is included within the Sub CoCP. It is the opinion of IACC that the proposed monitoring programme is likely to involve a combination of continuous and short-term spot check measurements at receptors, and on-site monitoring near particular noise sources at long term intervals. All monitoring results must be made available to the Council. The IACC would welcome further discussion with Horizon with regards to the detail of this system including discussion regarding the location of monitoring equipment and frequency.
- 10.36 The IACC also acknowledges the confirmation of details of the voluntary 'Local Noise Mitigation Strategy' included in the Wylfa Newydd CoCP to deal with residual noise effects affecting certain properties. The Strategy aims to further reduce the effects of construction noise and vibration on qualifying local residential properties, guest houses, hotels, B&Bs and Schools. This strategy includes various mechanisms to reduce the effects from noise at affected receptors including the provision of noise insulation at receptors. Whilst welcomed the mitigation would not address the noise levels experienced by businesses or places/spaces used by the public (places of worship, schools or local residents in outdoor spaces such as private gardens and local amenity areas). Horizon is requested to propose additional measures, which may take the form of compensation, to address these potential effects.
- 10.37 IACC will also require Horizon to provide regular reports on the implementation of the LNMS. This should include for the extent of notifications made, number of applications received, applications granted and implemented as well as the reasons for any refused.
- 10.38 It is noted that in relation to the operational phase, with the embedded and good practice mitigation taken into account, the assessment concludes no significant effects are predicted from the operation of the Power Station. The extent of operational monitoring however should be agreed.

- *Summary of Additional Information Required*

- Further details on the monitoring and reporting of noise and vibration to be agreed with IACC. This is to include the agreement of thresholds and trigger exceedances.
- A commitment from Horizon to report regularly on the implementation of the LNMS and measures to be provided to compensation for the noise effects experienced by businesses and places/spaces used by the public including outdoor spaces.

- **Lighting**

10.39 The Environmental Lighting Assessment (ELIA) correctly acknowledges that the effects of the Wylfa Newydd Project on the night-sky environmental are a particular consideration due to Anglesey having some of the darkest skies in the UK and the work being done towards Dark Sky Reserve status for Anglesey. The ELIA also recognizes that lighting can affect the setting of the Anglesey AONB, a number of designated nature conservation sites and other ecological interests and the settlements of Treglele and Cemaes.

10.40 The IACC requests that the ELIA is updated as detailed below in order to allow a full assessment to be made of the potential effects of lighting during construction, operation and decommissioning of the Wylfa Newydd Project on receptors (which include human receptors, natural environment and historic environment). This assessment will allow for further mitigation proposals to be identified to minimize potential effects.

- *Summary of additional information required;*

- The ELIA does not currently include an assessment of effects of construction and operational lighting schemes for the WYDA on landscape fabric (in particular Dame Sylvia Crowe's wooded mounds), or on seascape character, landscape character, landscape designations (including AONB, Heritage Coast and SLA) and on Cestyll Gardens Registered Historic Park and Garden.
- The ELIA should be revised to include the absolute obtrusive light level for residential receptors as set out in the ILP Environmental Zone Classification and Criteria. This would result in a more robust assessment due to the introduction of absolute numerical limits of obtrusive lighting. At present the methodology employed in the ELIA does not ensure that absolute limits for obtrusive light will be achieved. The ELIA contains no means by which compliance or exceedance with absolute lighting limits at Cemaes and Treglele can be assessed, subjectivity removed and therefore significance reliably assessed. The IACC does not agree with the ILP Environmental Zone Classifications for Cemaes and Treglele. The ILP Environmental Zone for assessment on Treglele and Cemaes shall be ILP Environmental Zone E2 as opposed to E3.
- The ELIA should be revised to include an assessment of effects of construction and operational lighting on residential receptors in individual properties around the WYDA so that maximum lighting levels at these receptors can be set and monitored. These should be placed in Environmental Zone 1 for assessment purpose.
- The ELIA fails to satisfactorily assess the potential impact of lighting on Treglele. The construction lighting should be remodelled and the bund (7m proto-Mound B) incorporated into the lighting model. Pre- and post-mitigation models should be

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provided for Tregle to allow the effectiveness of the mound to be maximised by applying suitable variables to its design.

- The ELIA does not include any CAD drawings showing the assessed lighting layouts and often a potential range of lux levels is given for activities in a Construction Zone without the ELIA being precise as to which end of this range it has used in its assessment.
- The IACC is not assured that the ELIA has always assesses the worst-case scenario with regard to lighting associated with crane use in the construction period. The Assessment focuses upon the tallest cranes in the central part of WNDA when for residential receptors in properties and communities close to WNDA, lighting effects are more likely to result from the use of smaller cranes closer to their properties. This concern echoes the concern raised that in the construction period the visual effects generated by construction activities associated with the closest components, principally Mounds A and B have not been fully considered.
- The ELIA confirms that that at Mounds B and D, the Power Station Site (Zone C7) and laydown area, adherence to lighting limits would sometimes “*not be practicable*”. The IACC is concerned that non-adherence with lighting limits increases potential for significant adverse effects especially at Tregle and this should be allowed for in defining the worst-case scenario and assessing the effect.
- The ELIA currently fails to apply a time for a lighting curfew which when combined with the reduced post-curfew light trespass criteria that are set out in the ILP Environmental Zone criteria, also leads to an underestimate of the night time effects upon some residents in the communities (curfew times normally between 23:00 – 07:00) and does not respond the worst-case scenario.
- There is a need to demonstrate that the mitigation measures employed are capable of achieving the stated residual impacts, rather than the current assessment which simply set out mitigation measures in order to achieve not significant impacts.
- Obtrusive light metrics should be predicted at point receptors located at residential properties on the boundaries of Tregle and Cemaes facing the proposed development site along with at any isolated properties. These should include Vertical Illuminance (lux), Viewed source intensity (candelas) and upward light ratio (unitless). This would ensure a quantitative prediction of viewed source intensity.
- The assessment in terms of its current night time baseline is influenced by the existing power station which is to be decommissioned. A future baseline without this lighting would have lower thresholds against which to assess the effects of the operational lighting at the new power station. Additionally consideration is required to the future baseline which utilizes LED street lighting which will reduce future baseline lighting levels (upward light ratio) for many residential receptors.
- The assessment requires more baseline illuminance measurements to have been undertaken to increase data to facilitate a comparative qualitative assessment.
- The ELIA does not model the effects of screening from the proposed mounding or planting, hence there is not quantitative evidence to support the assertions made in the assessment as well as the project’s visual assessment that both proposed planting and mounding will reduce night-time effects and that post application of

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mitigation measures, obtrusive light level limits can be met and significant night time effects can be minimized, if not removed for residential receptors.

○ *Summary of Mitigation and Compensation to be secured by way of DCO Requirements*

- Mitigation to be extended to include individual residential properties around the WNDAs.
- A detailed construction lighting scheme that incorporates all the embedded, good practice and additional mitigation offered and requested including a Central Management System, a monitoring scheme and mechanisms to respond to issues and complaints and provides a quantitative prediction of light intensity at all sensitive receptors and any further mitigation necessary.
- A detailed operation lighting scheme that incorporates all the embedded, good practice and additional mitigation offered and requested including a Central Management System, a monitoring scheme and mechanisms to respond to issues and complaints and provides a quantitative prediction of light intensity at all sensitive receptors and any further mitigation necessary.
- Maximum colour temperature of 3000K for the construction and operational lighting schemes.
- Maximum light levels at key visual and ecological receptor locations to be agreed with the LPA, including details of monitoring and reporting.

10.41 IACC may have other mitigation requirements once we have reviewed the additional information requested above.

11. Code of Construction Practice (CoCP) and Code of Operational Practice (CoOP)

11.1 The Wylfa Newydd CoCP, sub Co-CPs and CoOP are intended to confirm Horizon's commitment to mitigating the construction-related environmental effects and controlling potential impacts of the project on people, businesses and the natural and historic environment.

11.2 As confirmed in this letter, there is insufficient detail in the CoCP and sub CoCPs submitted with the DCO application to demonstrate that construction activities will be managed appropriately. The DCO should include a requirement for a detailed CoCP and Sub CoCPs to be agreed with the Local Planning Authority, in consultation with NRW prior to the commencement of the development.

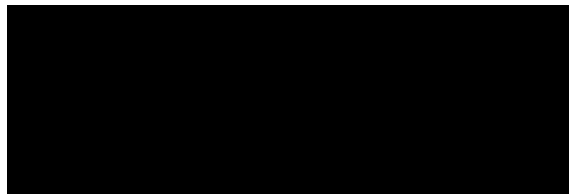
- *Summary of Mitigation and Compensation Measures to be secured by way of DCO requirement;*
- Detailed CoCP, Sub CoCPs and CoOP to be agreed with the Local Planning Authority, in consultation with NRW prior to the commencement of the development.

Conclusion

Although the IACC is supportive of the Wylfa Newydd project and the opportunities it brings, this support does not come at any cost. As outlined above, the IACC considers that there are a considerable amount of potential adverse impacts arising from the Wylfa Newydd Main Development Area that have not been given due and satisfactory consideration and assessment in the DCO which is unacceptable at this stage of the project. Although the IACC recognises that much of the detail will be dealt with by requirement (e.g. design, specification etc.) there are fundamental points of principle which need to be discussed and agreed prior to the DCO Examination to ensure that impacts are appropriately avoided, mitigated or compensated.

The IACC is committed to working with Horizon to ensure that manageable solutions for the Wylfa Newydd Development Area is agreed (through the Statement of Common Ground) prior to the DCO Examination.

Yn gywir / Yours sincerely



DYLAN J. WILLIAMS

Pennaeth Gwasanaeth – Rheoleiddio a Datblygu Economaidd
Head of Service - Regulation and Economic Development