

**From:** [PMO](#)  
**To:** [Wylfa Newydd](#)  
**Subject:** RE: IACC Deadline 2 Submission : Local Impact Report - Noise and Vibration (email 22)  
**Date:** 04 December 2018 20:08:42  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[Noise and Vibration.pdf](#)

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**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 ynglwm 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

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Mae'r neges e-bost hon a'r ffeiliau a drosglwyddyd ynglwm gyda hi yn gyfrinachol ac efallai bod breintiau cyfreithiol ynglwm wrth ynt. Yr unig berson sydd 'r hawl i'w darllen, eu copio a'u defnyddio yw'r person y bwriadwyd eu gyrru nhw ato. Petaeth wedi derbyn y neges e-bost hon mewn camgymeriad yna, os gwellch yn dda, rhowch wybod i'r Rheolwr Systemau yn syth gan ddefnyddio'r manylion isod, a pheidiwch datgelu na chropio'r cynnwys i neb arall.

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

rwydweithiau mewnol ac allanol.

Croeso i chi ddelio gyda'r Cyngor yn Gymraeg neu'n Saesneg. Cewch yr un safon o wasanaeth yn y ddwy iaith.

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# Wylfa Newydd Local Impact Report

Chapter 14: Noise and Vibration

December 2018

PINS Ref: EN010007



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## 1.0 Noise and Vibration

### 1.1 Context

1.1.1 This chapter identifies the potential impacts of noise and vibration effects resulting from the construction, operation and decommissioning of the Wylfa Newydd project. The Isle of Anglesey County Council (IACC) confirms that it has mainly considered the potential noise and vibration effects on human receptors which include residential properties, schools, care homes, recreational areas and Public Rights of Way including footpaths. In terms of advising on impacts on habitats and ecosystems we would refer the Examining Authority to the comments and representations of Natural Resources Wales (NRW).

1.1.2 The assessment of noise and vibration effects has been published by Horizon in the following DCO application documentation which the IACC has reviewed in order to inform our assessment of impacts;

- a) *6.2.6 ES Volume B – Introduction to the environmental assessments B6 Noise and Vibration*<sup>1</sup>
- b) *6.2.20 ES Volume B – Introduction to the environmental assessments App B6-1 – Baseline noise monitoring*<sup>2</sup>
- c) *6.2.21 ES Volume B – Introduction to the environmental assessments App B6-2 – Noise and Vibration Modelling and Assessment Methodology Report*<sup>3</sup>
- d) *6.3.5 ES Volume C – Project-wide effects C5 – Noise and Vibration effects on traffic*<sup>4</sup>
- e) *6.3.29 ES Volume C – Road Traffic-related effects (project-wide) App C5-1 – Operational road traffic noise input and*<sup>5</sup>
- f) *6.4.6 ES Volume D - WNDA Development D6 – Noise and Vibration*<sup>6</sup>
- g) *6.4.23 ES Volume D – WNDA Development App D6-1 - Noise model outputs*<sup>7</sup>
- h) *6.5.6 ES Volume E - Off-Site Power Station Facilities: AECC ESL and MEEG E5 – Noise and Vibration*<sup>8</sup>
- i) *6.5.14 ES Volume E - Off-Site Power Station Facilities: AECC ESL and MEEG App E6-1 Noise model inputs and outputs*<sup>9</sup>
- j) *6.6.6 ES Volume F - Park and Ride F5 – Noise and Vibration*<sup>10</sup>
- k) *6.6.14 ES Volume F – Park and Ride App F6-1 – Noise Model inputs and outputs*<sup>11</sup>
- l) *6.7.6 ES Volume G - A5025 Off-line Highway Improvements G6 – Noise and Vibration*<sup>12</sup>

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<sup>1</sup> Examination Library APP-071

<sup>2</sup> Examination Library APP-085

<sup>3</sup> Examination Library APP-086

<sup>4</sup> Examination Library APP-092

<sup>5</sup> Examination Library APP-116

<sup>6</sup> Examination Library APP-125

<sup>7</sup> Examination Library APP-142

<sup>8</sup> Examination Library APP-244

<sup>9</sup> Examination Library APP-252

<sup>10</sup> Examination Library APP-271

<sup>11</sup> Examination Library APP-279

<sup>12</sup> Examination Library APP-309

- m) 6.7.18 ES Volume G – A5025 off-line Highway Improvements G6-1 – Construction noise model inputs and outputs<sup>13</sup>
- n) 6.8.6 ES Volume H – Logistics Centre H – Noise and Vibration<sup>14</sup>n
- o) 6.8.14 ES Volume H – Logistics Centre App H6-1 – Noise model inputs and outputs<sup>15</sup>
- p) 6.9.11 ES Volume I - Cumulative effects App I4-3 – Intra Project Cumulative noise effects<sup>16</sup>
- q) 6.9.13 ES Volume I - Cumulative effects App I5-2 – Inter Project Cumulative noise effects<sup>17</sup>

1.1.3 The IACC's assessment of potential noise and vibration effects also has linkages with other chapters of this Local Impact Report, which should also be referred to, including but not limited to impact on the historic environment, tourism, including impacts on the Anglesey AONB and ProWs and education.

1.1.4 As confirmed in ES Chapter D6 Noise and Vibration, daytime noise levels in the area surrounding the WNDA are below the WHO Guideline value *Guidelines for Community Noise*<sup>18</sup> of 55dB<sub>LAeq,T</sub> which protects the majority of people from 'moderate annoyance' in outdoor living areas. Night time baseline levels are also below the WHO's Guideline value *Guidelines for Community Noise* of 45dB<sub>LAeq,T</sub> outside bedrooms.

1.1.5 The IACC has pursued its duties under the Well-being of Future Generations (Wales) Act 2015<sup>19</sup> in arriving at its decisions in respect of the impacts and their mitigation. Heath and the environment are included in the seven related Well-being goals and the objectives to achieve them. Therefore, any negative moderate or major adverse impacts from noise and vibration will adversely affect the well-being objectives for Ynys Môn.

1.1.6 As part of Welsh Government's Noise Action Plan for Wales<sup>20</sup>, noise action planning priority areas have been identified where exposure to noise is high. No noise priority areas have been identified Anglesey. The closest area is that along the A4087 in Bangor.

1.1.7 Figure 1 below confirms the nature of noise complaints received by the IACC's Environmental Health Department by source for the period 2009-2017. It highlights that complaints associated with construction activities and vehicles are relatively low.

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<sup>13</sup> Examination Library APP-321

<sup>14</sup> Examination Library APP-360

<sup>15</sup> Examination Library APP-368

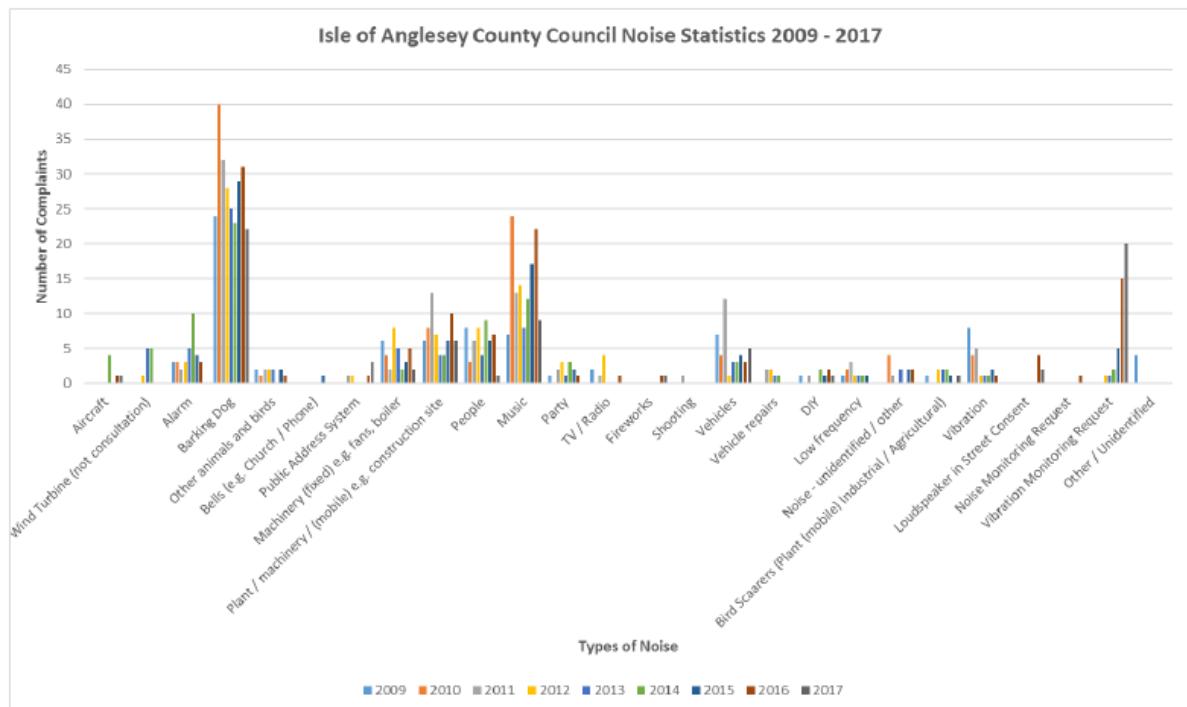
<sup>16</sup> Examination Library APP-394

<sup>17</sup> Examination Library APP-396

<sup>18</sup> Guidelines for Community Noise [\(Link\)](#)

<sup>19</sup> Well Being of Future Generations (Wales) Act 2015 [\(Link\)](#)

<sup>20</sup> A noise action plan for Wales 2013-18 [\(Link\)](#)



**Figure 1 Noise Complaints by Source (2009-2017)**

## 1.2 Impacts and Evidence base

- 1.2.1 The following section sets out the impacts of the Wylfa Newydd project which have been identified by the IACC. The need to sustain and improve the overall health and well-being of the communities within the immediate vicinity of the main site during construction of the Wylfa Newydd Project is a key issue.
- 1.2.2 The IACC considers that there are unlikely to be any positive impacts in relation to noise and vibration arising from the construction, operation and decommissioning of the Wylfa Newydd Project.
- 1.2.3 ES Chapter D6 – Noise and Vibration confirms that contractors will need to work in accordance with the Wylfa Newydd CoCP and Main Power Site sub-CoCP which includes topic-specific environmental management strategies. It is stated that the Noise and Vibration Management Strategies would set out requirements to predict, control and monitor both noise and vibration throughout the entire construction period.
- 1.2.4 The IACC is concerned that paragraph 6.4.27 of ES Chapter D6 – Noise and Vibration confirms that the Noise and Vibration Management Strategies would be ‘implemented wherever practicable’ and also the paragraph that follows which confirms that *‘prior to the commencement of construction activities, the preferred construction methodology and equipment would be reviewed to identify any reasonable opportunities to reduce the construction noise and vibration and potential effects on sensitive receptors’*.

1.2.5 This does not confirm that the strategies of managing noise and vibration that will have been approved and that are required to mitigate the potential effects of noise and vibration will be implemented on all occasions.

1.2.6 The IACC acknowledges that brief detail of the proposed monitoring strategy is included within the Main Power Station Site sub-CoCP<sup>21</sup>. IACC requires further detail to be set out in the CoCP and sub CoCPs with regards to the detail of the monitoring strategy including further details of the following;

- a) Further detail of the real-time web-based environmental system including data management and access
- b) The proposed location of noise monitoring equipment
- c) Confirmation of the thresholds and exceedance trigger levels
- d) Details of the process of investigating trigger exceedance including details of how Horizon will notify IACC of their investigation and confirming outcome of investigation
- e) Further detail of the process of receiving, investigating and responding to complaints
- f) Further detail of the proposed Community Liaison Groups including frequency of meetings.

1.2.7 During SoCG meetings the IACC have discussed the above detail with Horizon and requested that it is detailed in updated versions of the CoCPs and sub CoCPs and submitted into the examination process.

1.2.8 The IACC considers that a monitoring location should be located within the site campus once any occupation begins, as at this point it will become a receptor to noise.

1.2.9 One direct method of mitigation for 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 major construction activities. As confirmed in ES Chapter D6 – Noise and Vibration and Appendix A of the Wylfa Newydd CoCP, each application will need to contain particulars of the works to be undertaken including details of working methods, details of the plant to be used to undertake the work, noise and vibration (if relevant) prediction assessments and the proposed noise-control measures. The aim of the Section 61 applications would be to establish that the best practicable means have been employed to control noise emissions. As confirmed the IACC may attach conditions to each consent, where it is considered that additional measures are required.

1.2.10 The IACC has requested that the Community Liaison Group meets on a monthly basis rather than quarterly as proposed by Horizon from commencement of site activities up to when First Nuclear concrete is poured, which is the period when effects from air quality and noise are most likely to be significant. The IACC considers that this is the forum to ensure that the local community is kept fully up-to-date of the site activities including having an

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<sup>21</sup> Examination Library Reference App-415

understanding of planned works and to be informed of any activities that will potential affect their daily life and routines.

1.2.11 The Wylfa Newydd CoCP details the acceptability criteria for the Voluntary Local Noise Mitigation Scheme which confirms that '*In all cases, the LNMS noise insulation measures would be applicable to bedrooms and living rooms where there is a greater sensitivity to noise. Other rooms, conservatories, outhouses, sheds and other outbuildings are excluded*'.

1.2.12 The IACC are concerned that conservatories are excluded from the scheme. Conservatories are used for a range of purposes including as a living room, sitting room, dining room. The IACC requests that the acceptability criteria for the scheme is revised to include conservatories.

1.2.13 Whilst the Voluntary Local Noise Mitigation Scheme is welcomed, there is no mechanism for appeal should an application be refused or measures not considered adequate by the Applicant. Also, concern is expressed that 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).

1.2.14 Wylfa Newydd CoCP (paragraphs 8.3.14) confirms that the '*Environmental Statement identifies a number of potentially sensitive receptors such as schools that could be adversely affected by noise and where LNMS noise insulation measures may provide benefit. Guided by the Environmental Statement modelling work, Horizon will approach such receptors on a case by case basis to discuss this further*'

1.2.15 Horizon confirms potential significant adverse residual effects due to the construction noise from the WNDA development on Eglwys Sant Padrig Church in Cemaes and Cemaes Primary School. It is confirmed that noise insulation measures will be agreed to reduce or manage the potential significant adverse residual effects. However, the possibility of being able to install insulation measures at these buildings requires further consideration; for the Church, that consideration must include the effects of any noise insulation on the cultural heritage value and aesthetic of the church and for Cemaes School impact on the education environment and teaching times.

1.2.16 Further detail is also required as to how Horizon are to mitigate and compensate for the noise effects experienced by businesses and places/spaces used by the public including outdoor spaces.

1.2.17 IACC shall require Horizon to provide regular reports on the implementation of the LNMS. This should include details of the survey reports, the extent of notifications made, number of applications received, applications granted and implemented as well as the reasons for any refused.

1.2.18 Horizon has noted in a recent SoCG meeting its intention to produce a companion document to the LNMS which will provide further detail about the benefits to be expected from the scheme, details of the advantage and

disadvantage of secondary and double glazing as noise attenuation options, and an outline of the process by which the scheme will be implemented. The IACC requests that this information is submitted into the examination process.

1.2.19 In relation to Horizon's Blasting Strategy, the IACC will be commenting under separate cover on Horizon's non-material change to the timeframe within which blasting would be permitted to occur during construction phase of the Wylfa Newydd DCO Project. The IACC commented directly to Horizon with regards to the proposal during the public consultation on the proposed change.

1.2.20 The IACC's response to Horizon's consultation confirmed our concern that although Horizon are confirming that the proposed change to the Blasting Strategy is requested in order for the time period for blasting to be more closely to that stipulated in BS6472-2:2008 '*Guide to evaluation of human exposure to vibration in buildings*', the start and end times of the strategy are both one hour later to accommodate worker shift patterns for the Wylfa Newydd Project intended to minimise traffic congestion. It is considered that blasting between the hours of 18:00 and 19:00 will be at a time when the local communities located closest to the site will be highly sensitive to blasting and therefore a lower level of satisfactory magnitude should apply to the blasting between these hours and confirmed by BS6472-2:2008 '*Guide to evaluation of human exposure to vibration in buildings*'

1.2.21 Further detail is provided in our separate correspondence, submitted at Deadline 2.

### **1.3 Policy Position**

1.3.1 Criterion 1 of Policy PS 9 Wylfa Newydd and related development, which is the overarching Policy for the Wylfa Newydd Project, expects the proposal to be shaped by any relevant Policies in the Plan and any relevant supplementary planning guidance.

1.3.2 Based on the issues raised in this Chapter of the LIR, the requirements set out in criteria 8, 13 and 16 of Policy PS 9 are of particular relevance:

1.3.3 Criterion 8 expects the scheme's layout and design to avoid, minimize, mitigate or compensate for a range of impacts on the local and wider area, in the short and longer term. The range of impacts includes ecological impacts.

1.3.4 Criterion 13 sets out an expectation that communities are compensated for the burden and disturbance imposed on them by hosting the project.

1.3.5 Criterion 16 sets out an expectation that the developer provides a review mechanism in order to monitor the full range of impacts, to review the adequacy of mitigation or compensation measures and to make adjustments as necessary.

1.3.6 In light of the issues raised in this Chapter of the LIR, the requirements of the following Policies need to be considered:

1.3.7 Criterion 7 of Policy PCYFF 2, which sets out the presumption against development that would have an unacceptable adverse impact on the health,

safety or amenity of occupiers of local residences, other land and property uses or characteristics of the locality due to increased activity, disturbance, vibration, noise, dust, fumes, litter, drainage, light pollution, or other forms of pollution or nuisance.

1.3.8 Policy ISA 1 Infrastructure provision sets out an expectation that a financial contribution would be made to secure improvements (subject to the relevant tests), including related works, where they are necessary to make proposals acceptable.

1.3.9 The Wylfa Newydd SPG provides detailed advice about the application of Policies in the JLDP in relation to the Wylfa Newydd project. The following objective and Guiding Principles (GP) are of particular relevance within the context of this Chapter:

1.3.10 Objective 4 of the Wylfa Newydd SPG confirms a need to ensure that the Wylfa Newydd Project supports improvements to the quality of life (including health, housing, well-being and amenity) of the Island's residents, visitors and workers during its construction and operation.

1.3.11 Paragraph 3.2.5 goes on to expand that this will be achieved by (i) Ensuring measures are implemented to minimise noise, vibration, visual amenity and air quality impacts arising from the construction and operation of the Wylfa Newydd Project through appropriate mitigation;

1.3.12 GP7 Protecting health, which clarifies the expectations in relation to mitigation measures that are of particular relevance to the issues raised in this Chapter of the LIR:

- a) The provision of information on health risks to local communities, visitors and businesses;
- b) The physical design of new development (including consideration of screening, containment and layout to minimise impacts on sensitive receptors);
- c) Mitigation for affected receptors (including insulation to reduce noise impacts) or compensation where mitigation is not practicable;
- d) Measures including the restriction of working hours and traffic management for both construction and operational phases;
- e) Monitoring of potential impacts including in respect of noise, air quality and light pollution;
- f) Directly or indirectly supporting the provision of new, or enhancement of existing, health services in line with GP6.

1.3.13 Other elements of GP7 are also of particular relevance, and relate to the health and amenity of construction workers on the main site, and the IACC's expectations relating to DCO requirements/ conditions to address any potential adverse impacts on health. A schedule of potential requirements/ conditions is provided:

- a) Restrictions on total number of daily vehicle movements and movements during peak periods;
- b) Weight limits on construction traffic;

- c) Routing of traffic;
- d) Construction/ operation hours;
- e) Sequencing of construction operations;
- f) Noise, dust and odour management; and
- g) Community consultation on issues/activities likely to significantly impact upon amenity (including light pollution).

1.3.14 Potential measures to ensure the health and well-being of workers, include a corporate health policy and dissemination of health and safety information to workers.

1.3.15 GP26 Implementation and monitoring, which sets an expectation for a robust monitoring framework that will include monitoring the light levels experienced by sensitive receptors, such as residents and ecological receptors.

#### **1.4 Gaps in information**

1.4.1 The IACC is requesting that the Wylfa Newydd CoCP and sub-CoCPs are revised to include the following information;

- a) Confirmation that the Noise and Vibration Management Strategies will be implemented in full and not as 'wherever practicable' as currently confirmed.
- b) Further detail is set out with regards to the detail of the monitoring strategy including further details of the following;
  - i. Further detail of the real-time web-based environmental system including data management and access
  - ii. The proposed location of noise monitoring equipment
  - iii. Confirmation of the thresholds and exceedance trigger levels
  - iv. Details of the process of investigating trigger exceedance including details of how Horizon will notify of their investigation and confirming outcome of investigation
  - v. Further detail of the process of receiving, investigating and responding to complaints
  - vi. Further detail of the proposed Community Liaison Groups including frequency of meetings.
- c) The IACC requests that the acceptability criteria for the voluntary Local Noise Mitigation Scheme is revised to include conservatories.
- d) Details of the reporting proposal for the voluntary Local Noise Mitigation Scheme. IACC shall require Horizon to provide regular reports on the implementation of the LNMS. This should include details of the survey reports, the extent of notifications made, number of applications received, applications granted and implemented as well as the reasons for any refused.
- e) Further details of the noise insulation measures to reduce or manage the potential negative impacts caused by significant adverse residual effects in order to agree that these measures can be implemented.

- f) Further detail as to how Horizon propose to mitigate and compensate for the noise effects experienced by businesses and places/spaces used by the public including outdoor spaces.

## **1.5 DCO Obligations and requirements**

- 1.5.1 IACC will be required to meet the environmental monitoring functions necessary for this complex and diverse development. Such functions shall include, but are not limited to attending community liaison meetings, responding to noise and vibration complaints; either made directly to IACC by residents or businesses, analysing noise and vibration data and reports associated with any environmental monitoring systems and assisting Horizon with noise and vibration complaints made directly to them. Given the diverse nature, scale and scope of the Wylfa Newydd development across Anglesey, the potential demand upon the Public Protection department to facilitate such assistance shall create an increased burden upon the department.
- 1.5.2 A financial contribution to the funding of the monitoring of the impacts of the development by Horizon is sought for the duration of the Wylfa Newydd construction phase in order to fund:
  - a) 1 x FTE Environmental Health Officer and
  - b) 1 x FTE Graduate Environmental Health Officer

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