22/00654/DEEM

SITE ADDRESS: SCLENTEUCH WIND FARM, STRAITON, SOUTH AYRSHIRE, KA19 7NJ

DESCRIPTION: APPLICATION UNDER SECTION 36 OF THE ELECTRICITY ACT 1989

FOR PERMISSION TO CONSTRUCT AND OPERATE SCLENTEUCH WIND FARM

TOPIC : WIND TURBINE NOISE AND RESIDENTIAL AMENITY

ON BEHALF OF Save Straiton for Scotland.

20.03.24

1. Citizen's Initiative UK wish to submit further New Evidence related to Noise issues on behalf of Save Straiton for Scotland and the Dunaskin Community Development Group.

It is our opinion that both South Ayrshire Council and East Ayrshire Council are not aware of this some or all of this evidence. Nor are they fully informed as to the serious potential for harm their uninformed consent to the building of Sclenteuch development will have on the residential amenity and health and well being of the people living in and around Straiton, Patna and the Dunaskin areas.

1.1 Section 1 of this report gives the synopsis of this **New and supportive Evidence** and **Section 2** goes into more detail and how it relates to this application.

1.2 Acoustic Report on Wind Turbine Noise in a Rural Sheep Farm in Scotland. The Synopsis and Executive Summary attached at [1]

To date, this is the most comprehensive study undertaken in the UK, examining the full-spectrum soundscape in and around multiple homes of the Rural Sheep Farm, located within 7 km of five Wind Power Plants WPPs.

Current U.K. Government Policy on wind turbine noise does not measure, monitor or examine the full acoustic environment. It completely ignores the lower frequencies and denies that they could be problematic. This report examines scientific data gathered by the International Acoustic Research Organisation IARO and provides an explanation for the debilitating health effects developed in the nearby residents.

Current Scottish Government Policy facilitates an environment where: The Council are unable and unwilling to action a Noise Nuisance case therefore there is no redress as a result of current planning policy, (other than expensive, lengthy private nuisance).

1 Synopsis and Executive Summary, Appendix 1 Acoustics Report on the Rural Sheep Farm in Scotland, December 2023. Document Number: IARO24-3. Full Report available at iaro.org.nz.

1.2.1 Rural Sheep Farm residents forced to remain in noxious and toxic environment.

Livestock developing unexplained reproductive problems.
Three hospitalizations required for 2 of the residents in 2023.
Vulnerable residents unprotected and ignored (autistic child, history of auto-immune diseases).
Ongoing reporting of unresolved debilitating health impacts.
Non-response from governmental authorities bordering on medical negligence.

1.2.2 This Report documents scientific-grade, **high-resolution recordings** that were conducted at nine different locations within the Rural Sheep Farm [See Figs 1 & 2] (from March 2022 to March 2023), to identify the acoustic disturbances that are causing ill-health among the residents and livestock.

Wind Turbine Acoustic Signature (WTAS) are trains of multiple pressure pulses, arriving regularly every 0.5–2 seconds, often reaching 20 dB above environmental background level, and that characteristically emanate from industrial wind turbines within the infrasonic range.
Acoustical phenomena that would have otherwise gone undetected are herein identified and quantified. IARO does not use computerized noise models, all data is based on field measurements.

1.3 Scientific analysis has also been undertaken in the vicinity of the proposed Sclenteuch WPP, Document IARO23-C, and already shows evidence of WTASs from multiple WPPs.[2]

1.4 Scientific analysis has also been undertaken in the vicinity of Blackcraig WPP and shows evidence of WTASs from WPPs[3]

1.5 Peer Reviewed evidence supporting the IARO reports has already been submitted as Appendix 8 CD Save Straiton 11 IARO chapter 85225[4]

In December 2022 peer reviewed IARO: 'Infrasound Exposure: High-Resolution Measurements Near Wind Power Plants': https://www.intechopen.com/chapters/85225 was published supporting all the above WTAS data.

1.6 It is of note that this application is a RES development.

The offending, unresolved complaint about WPP A in the Document IARO23-C1-Redacted Rural Sheep Farm in Scotland is a RES development.

1.7 PPA-170-2172 In the very recent decision, dated **11 March 2024,** to dismiss the appeal and refuse planning permission, reference: PPA-170-2172 **at Garcrogo Hill and Barmark Hill, Corsock), the Reporter at paragraph 31 states:**

31. The representations raise concerns regarding infrasound or low frequency sound. I am required to apply ETSU-R-97 and the good practice guide and neither provide a mechanism to assess or deal with this. The determination of a planning application does not offer a means to create such guidance.

2 Appendix 7 CD Save Straiton 9 IARO Conjoined Inquiry FINAL
3 Wind Turbine Acoustic Signature Found in proximity to Blackcraig Industrial Wind Turbines
4 Appendix 8 CD Save Straiton 11 IARO chapter 85225

Consequently, it is not possible to conclude whether this development would either generate this effect or if it would adversely impact on residential amenity. The council does not recommend any conditions to mitigate any effects relating to this and I do not consider there is any justification for me to consider such an approach in this case.

Scottish Planning Policy is deemed to protect the health and well being and residential amenity of neighbours to all new developments, therefore it is unacceptable when evidence is persistently presented, (through consultations, at public inquires, through objections and complaints) that action is not immediately taken by government to halt developments and fully investigate the full acoustic environment and its impact on health.

1.8 THE HIGH COURT [2024] IEHC136 [2018 8457 P] BETWEEN:MARGARET WEBSTER AND KEITH ROLLO PLAINTIFFS AND MEENACLOGHSPAR (WIND) LIMITED DEFENDANT AND [2018 8458 P] BETWEEN:ROSS SHORTEN AND JOAN CARTY PLAINTIFFS AND MEENACLOGHSPAR (WIND) LIMITED DEFENDANT JUDGMENT of Ms. Justice Emily Egan delivered on the 8th day of March 2024[5]

1.8.1 This is a very significant recent ruling in the Irish High Court:

6. ….*It should be noted that this is the first private nuisance claim in relation to WTN that has run to judgment in this jurisdiction, or it appears in the United Kingdom. The only comparable authority cited to me by the parties is a judgment of the Supreme Court of Victoria……...*Appendix 1: CD Save Straiton 15 Bald Hills T0145[6]

1.9 French Council of State annuls wind turbine permits, major impact on energy future[7]

Paris, March 9, 2024 - In a landmark decision, the French Council of State has ruled that authorizations for onshore wind turbines and rules for the renewal of wind farms are illegal. The decision comes after a legal challenge brought by the Fédération Environnement Durable and 15 associations.

1.9.1 Scope of the cancellation:
The Council of State annulled all provisions concerning the three successive versions of the noise measurement protocol that was supposed to protect the health of local residents. The decision affects not only current authorizations and projects but could also call into question existing wind farms.

1.9.2 Aarhus case ACCC/C/2012/68 was successful in that the UK was found to be in breach of Article 7 of the Aarhus Convention. The Scottish Government disputed this and their rejection reasoning is still a matter of interpretation. The decision should have the

5 THE HIGH COURT [2024] IEHC136 [2018 8457 P] BETWEEN:MARGARET WEBSTER AND KEITH ROLLO PLAINTIFFS AND MEENACLOGHSPAR (WIND) LIMITED DEFENDANT AND [2018 8458 P] BETWEEN:ROSS SHORTEN AND JOAN CARTY PLAINTIFFS AND MEENACLOGHSPAR (WIND) LIMITED DEFENDANT JUDGMENT of Ms. Justice Emily Egan delivered on the 8th day of March 2024

6 Appendix 1: CD Save Straiton 15 Bald Hills T0145

7 Media release state council of France March 17 2024

effect of forcing developers to make far more comprehensive 'benefit statements' with their planning applications and governments required to back up claims about the alleged benefits. That has not happened. There is still no proof of claims made relating to the saving of CO2 emissions etc., or any provision of proof that the rising numbers of peer reviewed reports on the negative health impacts upon the population from WPPs are incorrect. Reports of harm from victims continue to be largely ignored and few G.P.'s are even aware of the potential problems let alone requested to consider the health implications of living in close proximity to Wind Turbines.

1.10 Evidence was presented to the Scottish Government by the Tharpaland Monks

In 2012, the monks submitted evidence to a Scottish parliamentary inquiry into the government's renewable energy plans. This included the Executive Summary of Three Windfarm Studies and An Assessment of Infrasound[8]. This report and recommendations were totally ignored, the monks were bought out by SPR and many wind turbine neighbours have gone on to suffer.

Section 2

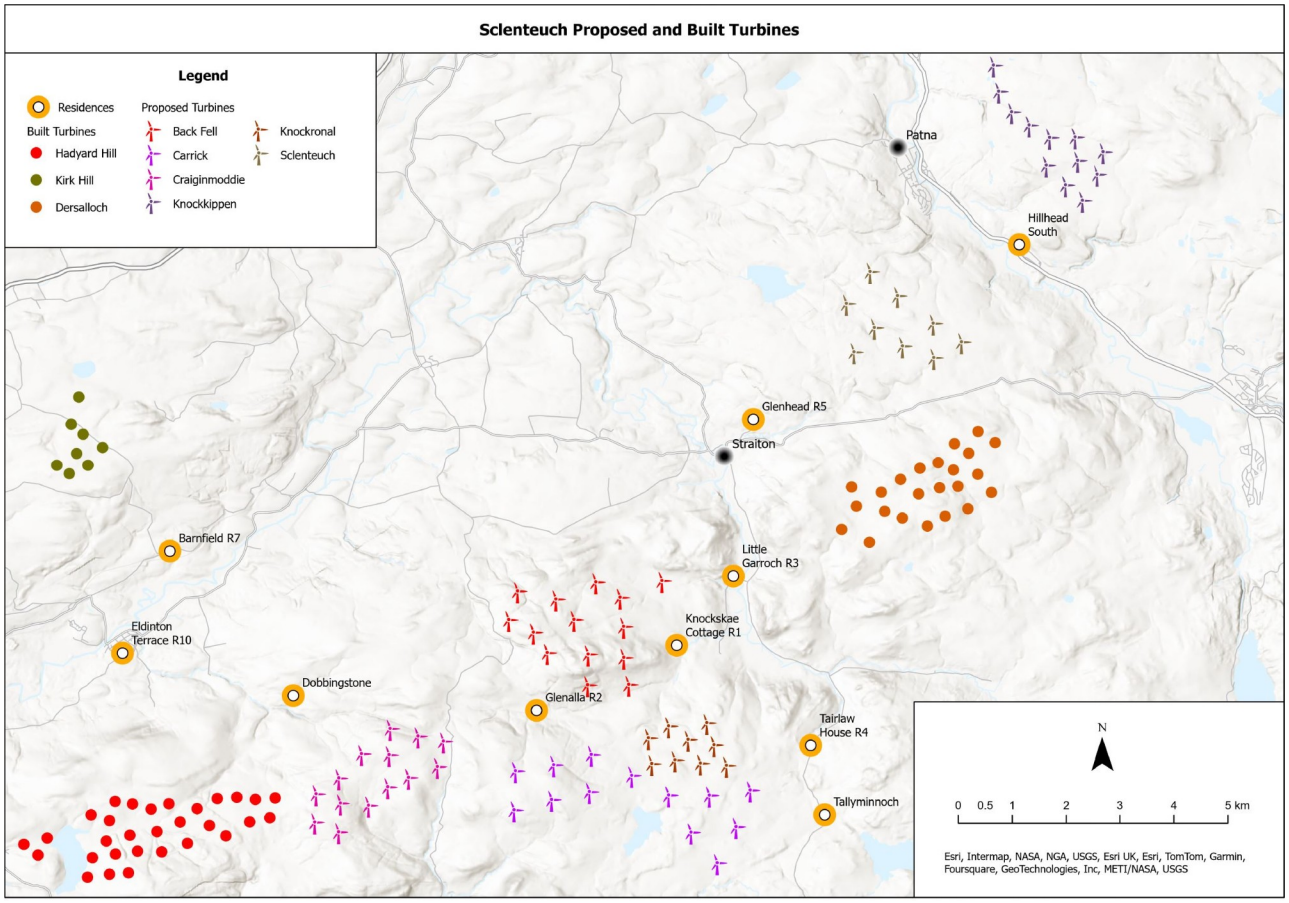

Figure 1: Map of the study area based on Straiton showing built and proposed turbine locations and IARO noise receptor residences. How noise is propagated is very dependent on wind speed, direction, topography and the layout of adjacent turbines.

8 The Executive Summary of Three Windfarm Studies and An Assessment of Infrasound

2.1:IARO data analyses versus UK Legislated data analyses

Annex A[9] (Annexed to IARO REPORT No. IARO23-C1): provides laypersons with substantial, 'user-friendly' information, shattering the myth that only acousticians can understand the complexities of acoustic measurements. The 'Current State of Affairs in the U.K.' regarding onshore wind power plants is given in Section 1; A brief explanation of the 'SAM Technology' is provided in Section 2, and the 'Types of Analyses' obtained with the SAM Technology can be graphically consulted in Section 3.

2.2 A comparative example is given in Figure 2, below, between the information yielded by IARO analyses and those yielded by the methodologies implemented by ETSU-R-97 and the 2013 Good Practices Guide to the Application of ETSU-R-97 for the Assessment and Rating of Wind Turbine Noise (published by the Institute of Acoustics).

2.2.1 Even if WTAS were considered important (as potential threats to biodiversity and bio-sustainability, for example), the noise assessment methodologies currently imposed by these documents preclude the evaluation or quantification of any WTAS.

2.2.2 Figure 2 shows data captured at a rural farm in Scotland. The type of acoustic information obtained with IARO methodologies is compared with the type of information gathered from imposed methodologies, specifically, the mandatory application of the A-weighting, C-weighting, or G-weighting filters (see Annex A—Technical Background for Laypersons).

2.2.3 Considering that WTAS occur more significantly at frequencies below 10 Hz, neither the 1/3rd octave analyses nor the use of any filtering system (A, C or G) will correctly reflect the physical reality present in these homes.

2.2.4 Consequently, the use of ETSU-R-97 and of the 2013 Good Practices Guide to the Application of ETSU-R-97 for the Assessment and Rating of Wind Turbine Noise (published by the Institute of Acoustics) is irrelevant for the evaluation and quantification of WTAS. This was highlighted by the Reporter **PPA-170-2172** in the very recent decision, dated **11 March 2024,** to dismiss the appeal and refuse planning permission -at paragraph 31 (quoted above at paragraph 1.7) and therefore precludes the ability of planning officials involved in this planning application a means to properly evaluate the acoustic environment.

2.2.5 The significant difference as to what is actually present in the acoustic environment is clearly demonstrated below in Figure 2:

9 Annex A Annexed to IARO REPORT No. IARO23-C1

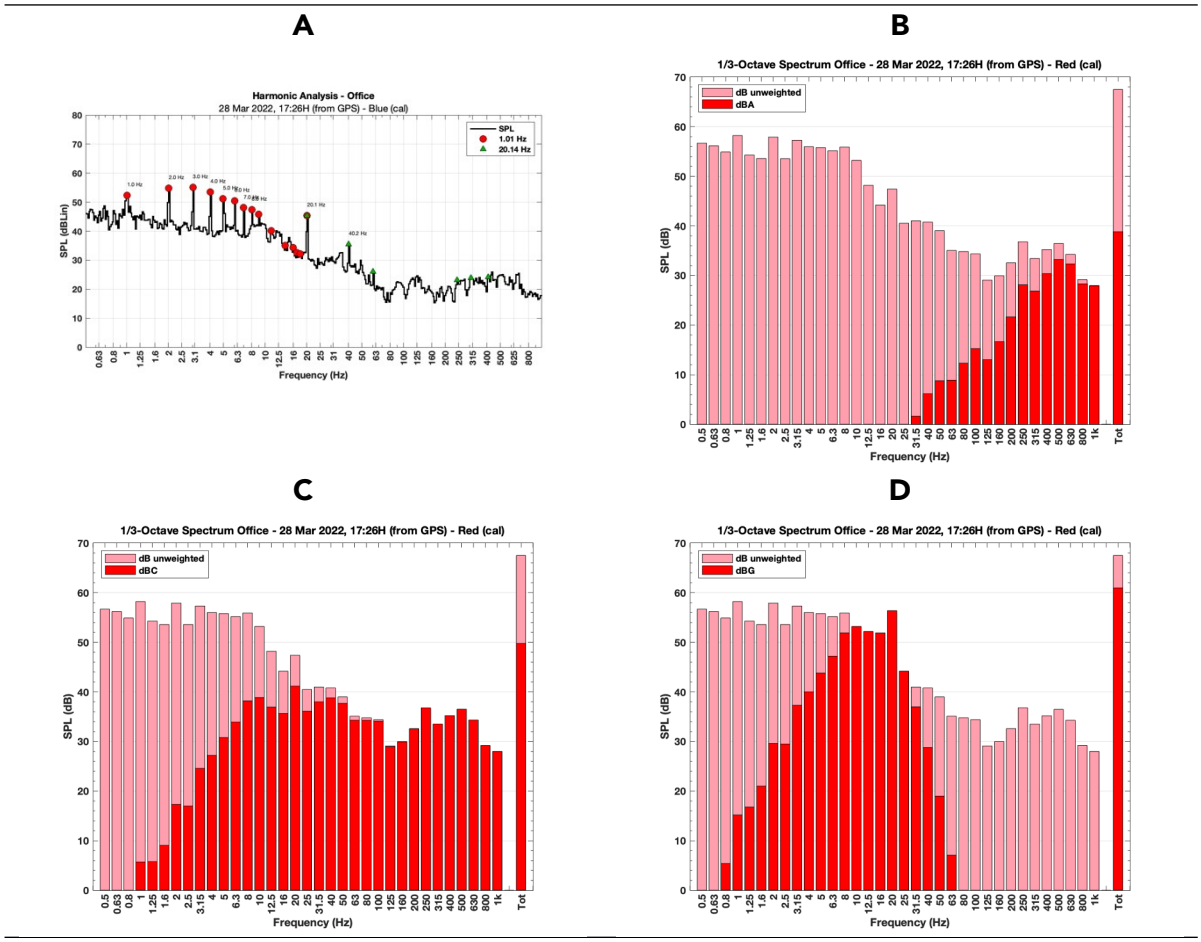

Figure 2. Ten-minute segment of Recording No. 1 (Rural Farm 28 March 2022, Wsp = 1.9 m/s (7 km/h), Wdir = NW) starting at 17:26H (Red microphone only, placed in Mr. Donald McArthur's bedroom). **A.** IARO Analysis in 1/36th octave bands, dB Unweighted and 1-second time resolution. The presence of a strong WTAS is clearly identified by a harmonic series with a fundamental frequency of 1 Hz. **B–D.** Analyses as required by legislation in 1/3rd octave bands and 10-min averages: **B.** A-weighting, **C.** C-weighting, and **D.** G-weighting. The Pink bars are in unweighted dB, not required by legislation but included for comparative purposes.

Peaks at 1 Hz and 2 Hz, associated with the 1.0-hertz WTAS, are easily identifiable in the unweighted 1/3rd octave spectrum (pink bars, **B–D**). Since the A-weighting essentially excludes all acoustic information below 20 Hz, the 1- and 2-hertz peaks are, expectedly, not detectable (red bars in **B**). Using the C-weighting also eliminates the possibility of identifying WTAS because it seriously under-reports events below 10 Hz (red bars in **C**). The application of G-weighting results in serious under-reporting of anything below 8 Hz, and an over-reporting of data in the 10-31 Hz range (red bars in **D**). The 20 Hz peak clearly present in **A** is entirely absent from the A-weighting analysis (**B**), appears to take on tonal characteristics when C-weighting is applied (**C**) and is seriously over-estimated with the G-weighting (**D**).

2.3 While the wind industry sector appears to have no legal responsibility to monitor low frequency (and infrasonic) noise generated by their WPP operations, this does not justify scientifically incorrect statements, misleading decision-makers into believing that this low frequency (and infrasonic) noise level "occurs at similar levels to pre-existing background levels." This statement is categorically false as shown in Figure 3 below, showing WTAS already present in the area at Glenhead (property R5 and explained in Annex A, Section 3, Sonograms Figure 8) and other IARO reports and peer-reviewed scientific publications.

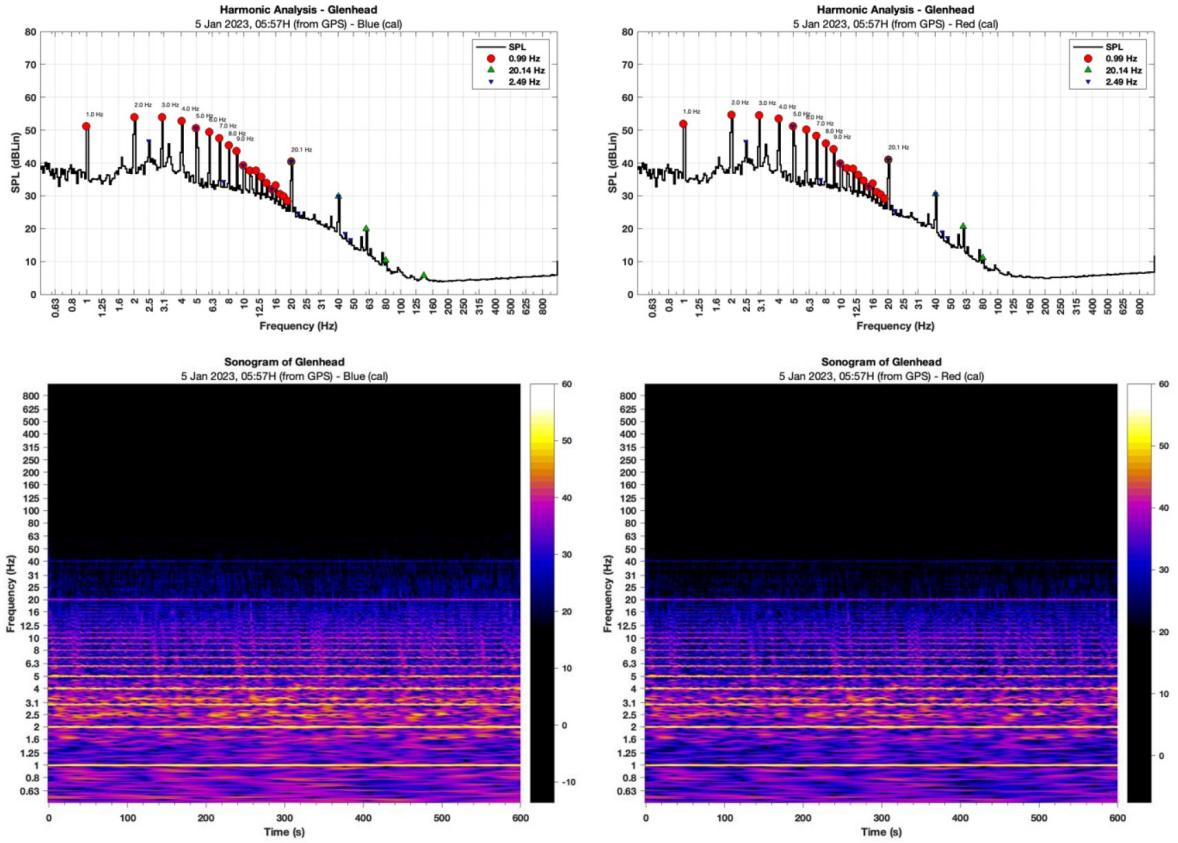

Figure 3 Ten-minute segment of Recording Glenhead 5th January 2023, Harmonic analyses (top) and sonograms (bottom) for Glenhead at 06:00H, 5 January 2023. Blue microphone (left) and Red microphone (right)

The low level of the background noise shows that the recording was taken on a still night, without rain or wind. Two harmonic series are seen in both channels as peaks in the harmonic analyses and as horizontal lines in the sonograms. There are two major harmonic series with fundamental frequencies at 1 Hz and 20 Hz. These are shown as red dots, and green triangles, respectively, in the upper plots and as horizontal lines in the lower plots. The 1.0-hertz harmonic is most likely due to WTAS, as this is within the range of blade-pass frequencies from some modern IWTs. The 20-hertz harmonic is not WTAS but reflects the acoustic output of some form of machinery. If this is related to IWTs, it would be coming from the output of the gearbox.

2.3.1 Many examples of this type of Scientific analysis can be seen in the vicinity of the proposed Sclenteuch WPP, Document IARO23-C, which already shows evidence of WTASs from multiple WPPs.

Scientific analysis has also been undertaken in the vicinity of Blackcraig WPP and shows evidence of WTASs from WPPs

2.4 Cumulative Assessment When more than one WPP is planned, cumulative noise assessments are required based on ETSU-R-97 and on the 2013 Good Practices Guide to the Application of ETSU-R-97 for the Assessment and Rating of Wind Turbine Noise (published by the Institute of Acoustics). As a result, dBA, dBC or dBG metrics are used which preclude the observation of WTAS.

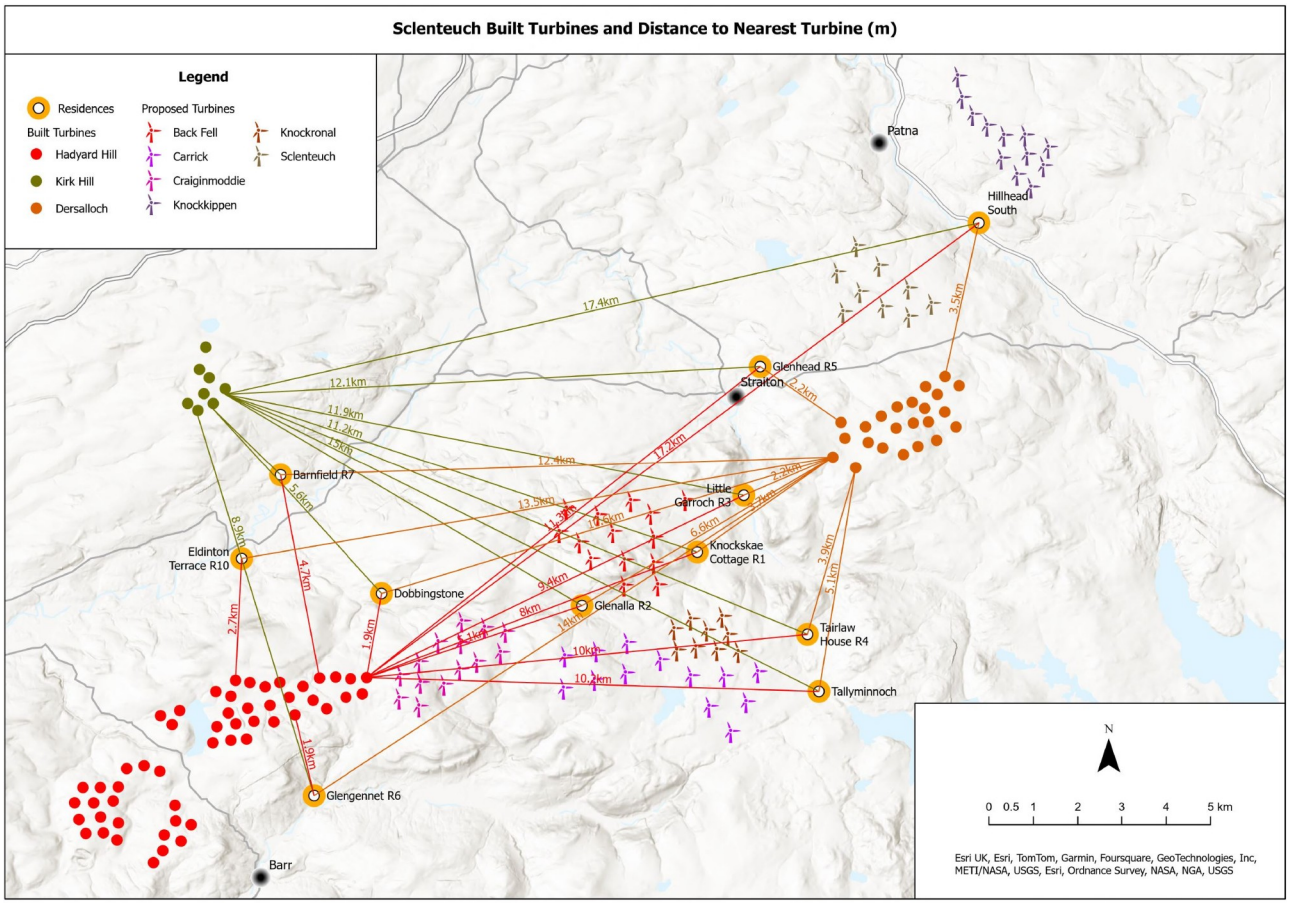

Figure 4 in the Straiton study area shows the current cumulative distances to the nearest turbine from each operational WPP to each residence.

2.4.1 Sometimes, more than one WPP surrounds a given residence. In those cases, more than one WTAS might be detected, depending on the number of different wind turbine models.

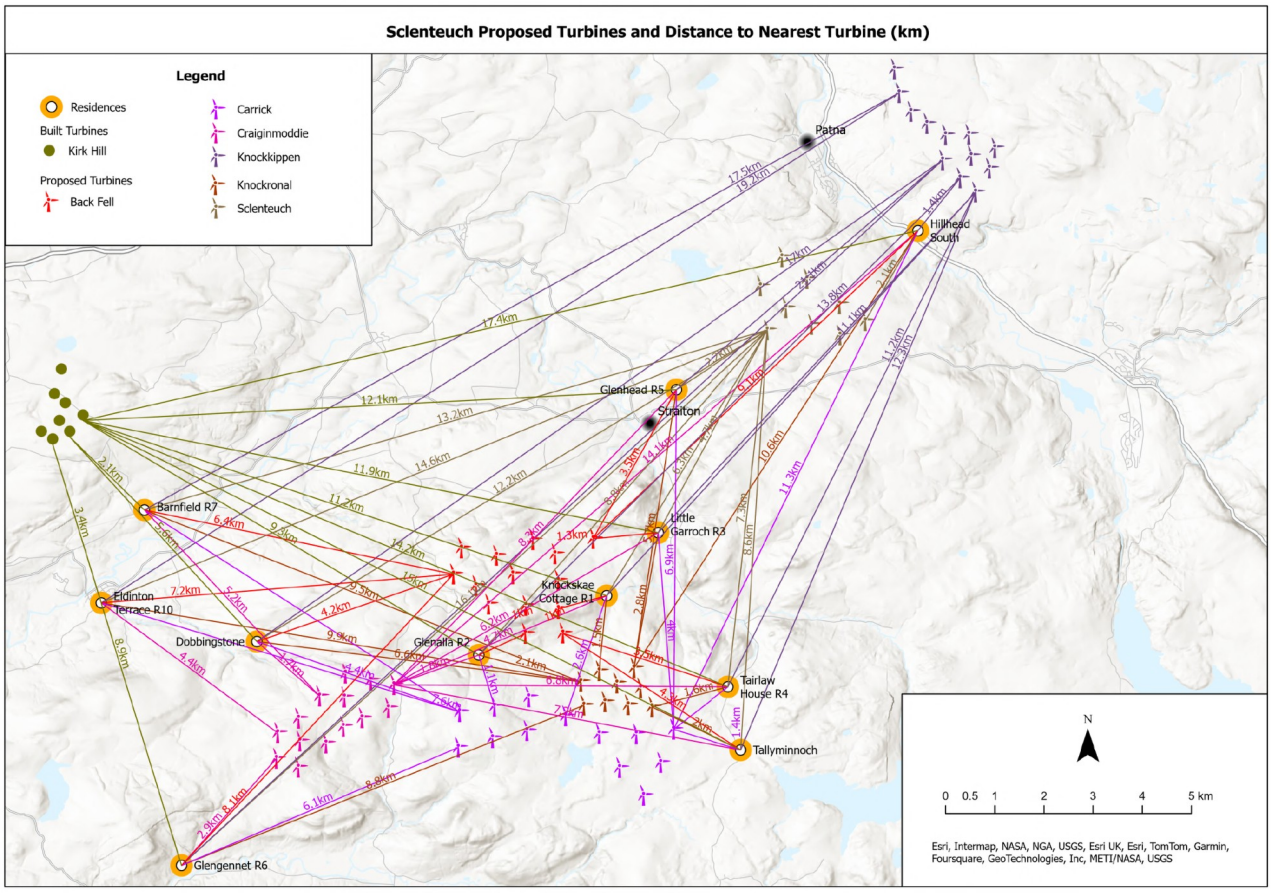

Figure 5 in the Straiton study area shows the proposed cumulative distances to the nearest turbine from each operational WPP to each residence.

2.4.2 It must be remembered that these are IARO representative residences and that there are 86 named representative properties in the Sclenteuch Table 12.9: Location of residential properties and distances to nearest proposed turbine Volume 2: Environmental Impact Assessment Report Chapter 12: Noise; and some of these are multiple homes.

2.4.3 The Environmental Impact Assessment Report Chapter 12: Noise only considers dBA -audible noise and the closest WPP: Dersalloch:

> *12.10.6 A cumulative operational noise assessment was completed to determine the potential impact of the Proposed Development alongside the existing Dersalloch Wind Farm. The predicted noise levels are within noise limits derived in accordance with ETSU-R-97 at all properties at all considered wind speeds.*

2.4.4 The plight of the families on the Rural Sheep Farm in Scotland only began when the RES development began operation. They had lived with 3 of the developments (and hosted some of the turbines) for many years. This demonstrates the cumulative impact over 7km. Severe health deterioration began in November 2021, after WPP A commenced testing operations adjacent to the confines of the Rural Sheep Farm. Farm workers (both permanent residents and those who attend during key activities, such as calving and

lambing) also complain of adverse health impacts when working in the livestock sheds and pens located in the proximity of the turbines.

2.4.5 The reality of the cumulative effect of multiple WPPs can be seen in the Time-of-Day plots where the cumulative effect of the 5 WPP surrounding the Rural Sheep Farm (within 7 km) is a continuous, 24/7 exposure to WTAS.

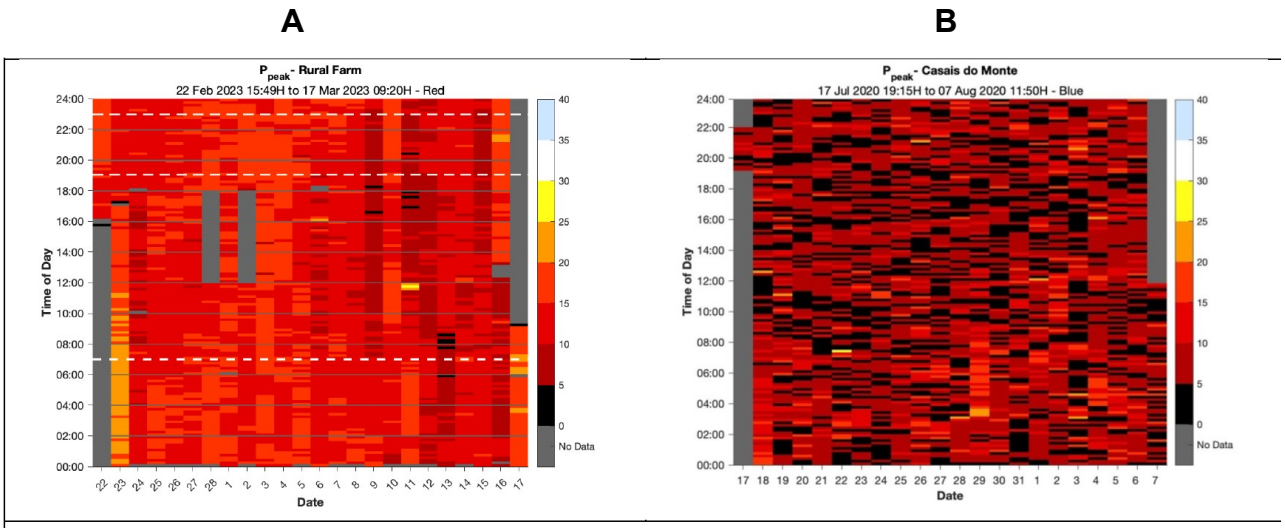

Figure 23. Time-of-Day vs. Day plot for the peak harmonic prominence (P_{peak}) over all harmonic series detected within the 0.5–20 Hz range. **A.** Rural Farm, Scotland (data recorded on 22 Feb–17 Mar 2023, based on 3175 10-minute sound files). **B.** Casais do Monte, Portugal (data recorded on 17 Jul–7 Aug 2020, based on 2974 10-minute sound files).

In **A**, P_{peak} is frequently seen at 10–15 dB and at 15–20 dB above background level (red and light red slots). The yellow dash on 11 March, at roughly noon, corresponds to a 20-minute period when P_{peak} was between 25–30 dB above background level. With the exception of the very infrequent and sporadic appearance of black slots, the saturation over time demonstrated by this plot means that REDACTED residents were continuously exposed to human-made/artificial low-frequency and infrasonic acoustic phenomena for, practically, 24 consecutive days.

In **B**, the number of black slots is significantly increased as compared to **A**. This means that the number of sound files that registered P_{peak} at below 5 dB is larger than that registered at the rural farm. It follows that the overall time over which exposures to P_{peak} were at or above 15 dB is significantly less than in **A**.

Figure 6: Time-of Day plot for all harmonic series within the 0.5—20 Hz range that were detected at a rural farm in Scotland, compared with that collected at Casais do Monte in Portugal. With the exception of the very infrequent and sporadic appearance of black slots, the saturation over time demonstrated by this plot means that REDACTED residents were continuously exposed to human made/ artificial low-frequency and infrasonic acoustic phenomena for, practically, 24 consecutive days.

2.4.6 WTAS were continuously present at all hours of day and night at the Rural Sheep Farm. Cumulative effects of the infrasonic output of the multiple WPPs show a 24/7 exposure to WTAS [See Fig. 56 and Annex A, Section 3-V]. Respite from this acoustically aggressive environment is only achieved by physically leaving the Farm to a distance of 3 or 4 miles, depending on the weather.

2.4.7 The time of day plots for the residences in the Straiton study area currently show less peak harmonic prominence (Ppeak) as currently there is only Dersalloch and Hadyard Hill operational in the area (KirkHill has not yet begun operations). However examination of all the Time of Day plots for the Straiton area already shows a significant amount of WTAS.

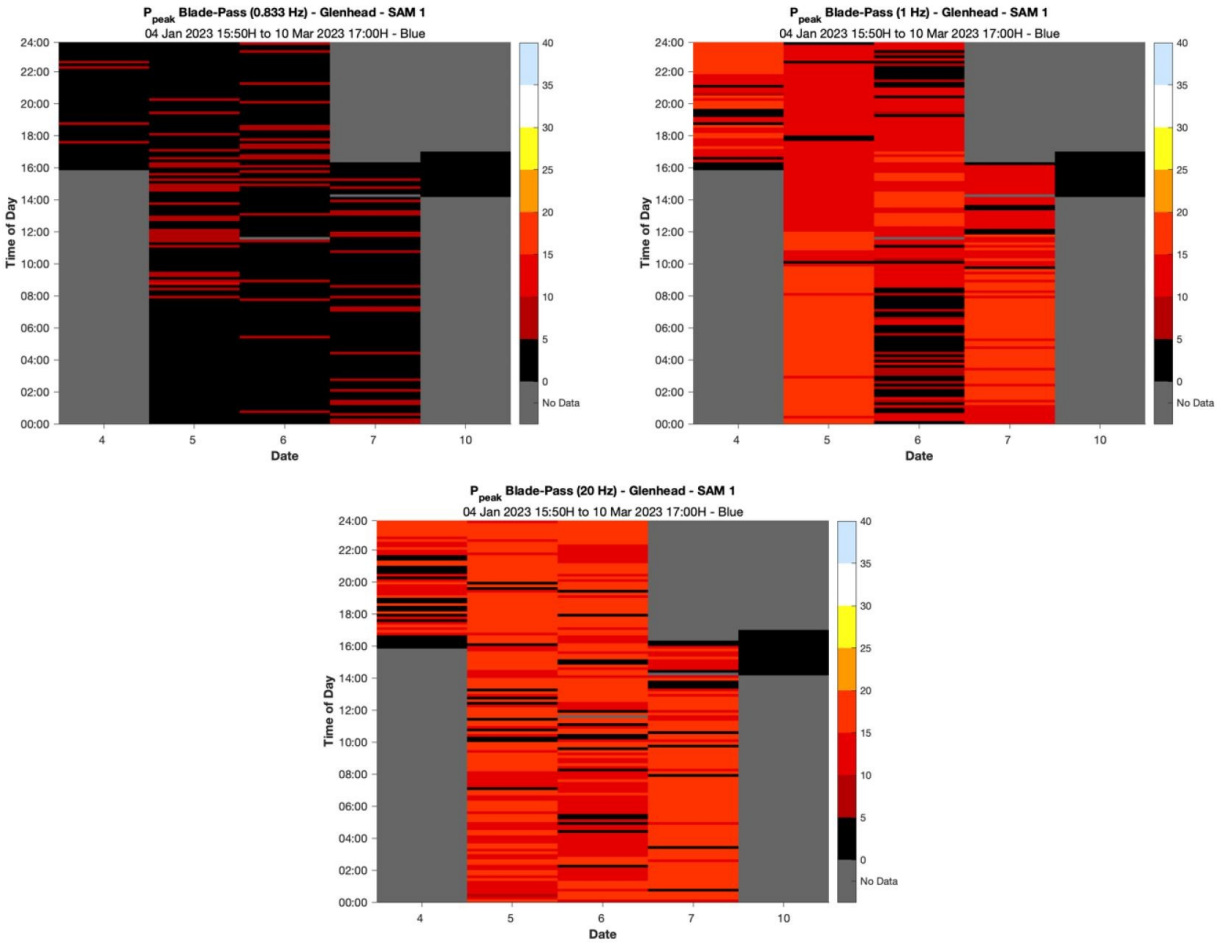

Figure 7 Time of Day Plots Blue Microphone at GlenHead 4th -7th January and 10th March

2.4.8 How noise is propagated is very dependent on wind speed, direction, topography and the layout of adjacent turbines. **Figures 1,4&5** show the villages of Patna and Waterside in a linear valley, therefore many of the homes have high ground behind them, Straiton is in a bowl and this can be very problematic for the escape of the sound pressure waves which can then resonate in the homes of the residents.

2.4.9 The Physics of Pressure Waves: The frequency or pitch of the sound is measured by the distance between the peaks known as the wavelength. For audible noise the peaks are close together which is why we can hear it and the wavelength is in the order of centimetres. Humans hear well at 3000Hz (babies cry at 3500Hz). To protect against a noise the barrier has to be the thickness of the wavelength which is achievable for audible noise. But at 20 Hz the wavelength is 17 metres, so we do not have the means of creating a barrier of sufficient thickness to protect from the lower frequencies. Consequently, low frequency sound will travel through objects and may cause them to resonate in response to the sound stimulation as well. Therefore the distances shown on the Maps between residences and turbines, in Figures 4 and 5 are scientifically justifiable to be the distances Low Frequency Acoustic Pressure Waves can travel from turbines to homes.

2.4.10 Amplitude Modulation is an audible phenomenon, normally associated with the "whoosh" or "swish" sounds that can emanate from IWTs. It is an audible wind turbine acoustic signature where the pressure waves are close enough together for the acoustic waves to be visible on the sonogram as actual lines of waves: Annex A describes AM in Paragraphs 45-49:

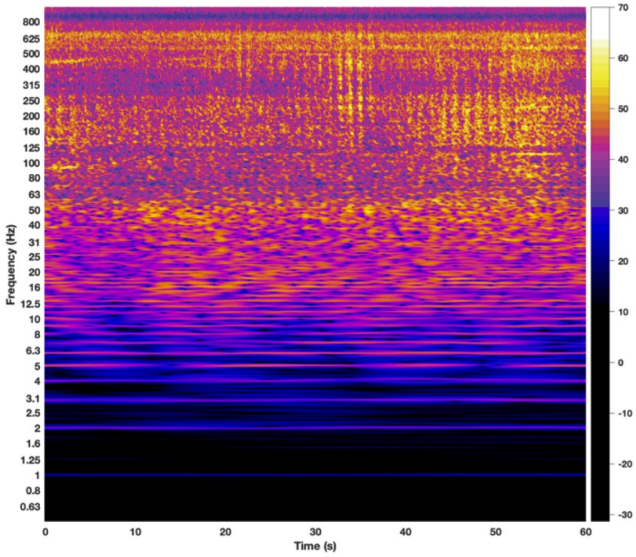

Figure 15. Sonogram of a 1-minute recording in the vicinity of the Makara WPP near Wellington in New Zealand (9 October 2009 at 02:39H, no wind data available). The phenomena of Amplitude Modulation as applied to wind turbines is shown as the bright yellow staccato-like pattern seen over a pink background, but only in the upper (audible) portion of the frequency spectrum. Notice that the corresponding WTAS is also present. Moreover, since Amplitude Modulation is a machine-generated acoustical phenomenon, it too appears at straight (vertical) lines.

Figure 8 Sonogram showing Amplitude Modulation and WTAS from wind turbines

2.5 The residents of the Rural Sheep Farm in Scotland:

have pleaded with the council to implement a Statutory Noise Nuisance case for two years, but their health complaints are apparently deemed insufficient to do so, and they have been forced to remain in a noxious and toxic residential environment. They cannot leave their farm and home as animal welfare would be at risk.

2.5.1 There are historical cases in South Ayrshire detailed in the objection submitted on 17.7.2023 from paragraph 5 through to 6.10 where complaints have been unresolved and ignored.

2.5.2 A council representative on 'Noise' (Clachaig Glen Hearing WIN-130-7) has stated that councils are very unlikely to take action (and it has only rarely happened in Scotland) as it is considered "Not in the Public Interest" to take on a large wind development company in a Statutory Noise Nuisance Case.

2.5.3 There is a clear failure of the planning system if noise complaints cannot be successfully resolved by the council deemed responsible. The very recent judgement by Ms Emily Egan:

> **THE HIGH COURT [2024] IEHC136 [2018 8457 P] BETWEEN:MARGARET WEBSTER AND KEITH ROLLO PLAINTIFFS AND MEENACLOGHSPAR (WIND) LIMITED DEFENDANT AND [2018 8458 P] BETWEEN:ROSS SHORTEN AND JOAN CARTY PLAINTIFFS AND MEENACLOGHSPAR (WIND) LIMITED DEFENDANT JUDGMENT of Ms. Justice Emily Egan delivered on the 8th day of March 2024**

is relevant to this application in that the judgement supports the complaints and the situation in the Rural Sheep Farm Nuisance complaint which remains an unresolved case after 2 years and 4 months. The council should not ignore the following:

> **2.5.4** *In paragraph 9 the case for Low Frequency Noise is noted*
>
> **2.5.5** *In paragraphs 15/16/17 and 27 it cites that wind turbine noise (WTN) must be assessed both quantitatively and qualitatively.*

The IARO method of analysis using sonograms and harmonic analysis described in Annex A, section IX allows for both quantitatively and qualitatively assessing noise by the identification of WTAS because of three factors:
a. increased time resolution,
b. increased frequency resolution, and
c. use of unweighted SPL.

> **2.5.6** *Issue 1: In a nuisance case, the onus of proof of noise compliance is on the wind farm.*
>
> **2.5.7** *Issue 2: Audio recordings are tenable at court.*

2.5.8 *Issue 5: The WTN should not amount to a substantial interference with the residents use and enjoyment of their land*

2.5.9 *Issue 6: In a nuisance case, the onus of proof of noise compliance is on the wind farm.*

2.5.10 *The wind farm should not regularly disturb sleep.*

2.5.11 *To claim nuisance against a wind farm, the plaintiff must*

- Show interference with the enjoyment and comfort of their land.

- This interference must be substantial over a period of time.

2.5.12 *In paragraphs 68/59 Audio recordings and graphs of intermittent irregular wind turbine noise, in harmony with oral evidence and diary which record the* resident's *inability to have a restful night's sleep and the exhaustion which follows demonstrate, on the balance of probabilities, that a nuisance exists.*

2.5.13 *In paragraph 393 An L90 statistical calculation does not identify fluctuations in noise levels such as amplitude modulation (AM).*

2.5.14 *In paragraph 592 the judgement states that people hear and feel wind turbine noise both inside and outside the house with the windows open or closed. This is not a reasonable impact for a wind farm located in a quiet rural environment.*

2.5.15 *In paragraph 598: Noise from turbines poses a nuisance in the evenings and weekends (during quiet waking hours) when one could enjoy the recreation and peace in one's dwelling.*

Paragraph 599 states that a quiet environment is at a premium at night.

It is unreasonable to expect occupants of a house to keep the windows shut in an attempt to mitigate unreasonable wind turbine noise.

2.5.16 Evidence from Annex B (Annexed to IARO REPORT No. IARO23-C1 and withheld for data protection), provides all the evidence as required by this judgement. Annex B also demonstrate how RES constrained the nearest turbines to the Rural Sheep Farm as an initial response to the complaints (Nov-Dec 2021). Repairing and testing of the turbines followed, and were then incrementally reintroduced into operational status. By Feb-Mar 2023, full operational power output had resumed. Despite the copious and severe health complaints from the Rural Sheep Farm residents, RES claimed that all turbines were compliant with the ETSU Condition 32. It should be noted that the infrasonic acoustic output of WPPs increases with increasing power output.

2.5.17 *In paragraph 626 the Judgement states that: There is not a binary choice to be made between the generation of renewable energy and a goodnight's sleep for its neighbours.*

RES would appear to disagree with this statement for the residents around Sclenteuch as it states:

In The Environmental Impact Assessment Report Chapter 12:

> *Derived Acoustic Acceptance Criteria*
>
> *12.9.15 Due to the greater generation capacity and therefore increased planning merit of the cumulative development, and in accordance with the guidance provided by ETSU-R-97 and the IoA GPG, a 40 dB(A) daytime lower limit has been adopted. Justification for this limit is as follows:*
>
> *• Number of noise affected residential properties: 13 of the considered residential properties are predicted to experience cumulative noise levels of greater than 35 dB(A), although this increases to 28 when the Dersalloch predictions are scaled to their conditioned limits. This is a small number of properties in relation to the scale of the cumulative development which would generate significant social, economic and environmental benefits, suggesting a limit towards the upper end of the range would be appropriate;*

2.6 The creation of ETSU-R-97 had zero input from medical professionals

Health Protection Scotland and the U.K. National Healthcare Service attribute a psychosomatic origin to the adverse health effects developed in people living near WPPs (“it is all in their heads”). In the U.K., the immediate and long-term health effects of this unique type of ‘noise’ are not recognized and therefore, not investigated. A separate Report on the human and animal health events and behaviours observed at the Rural Sheep Farm is referenced.

2.6.1 Since November 2021, numerous (and ongoing) communications have been exchanged between the residents at the Rural Sheep Farm and the local Council, Renewable Energy Systems (RES, the commercial entity responsible for WPP A) and Environmental Health Officers. The Minister for Public Health and Women's Health Scotland, the Scottish Energy Minister and the Consultant in Health Protection NHS Highland are also engaged in this unfolding disaster. The family’s GP has acknowledged the deterioration of their health due to the “significant impact of noise pollution.”

2.6.2 The Scottish Government chose to ignore the studies and recommendations from the Tharpaland monks presented to the Scottish parliamentary inquiry into the government’s renewable energy plans:

Tharpaland decided to study the possible impact a windfarm might have on meditative retreaters, in particular. Studies were then carried out at 3 Scottish windfarms – Hagshaw Hill, Beinn An Tuirc and Deucheran.[10]

The findings of these studies (see 'Effects of Windfarms on Meditative Retreaters – A Human Impact Assessment' Tharpaland, 2003b), were so surprisingly negative and adverse that there was little room for doubt that the proposed windfarm, if approved, would force Tharpaland to close. However, although originally concerned with the impact that the proposed windfarm would have on just Tharpaland, it became increasingly apparent that the results of the studies could have potentially serious implications for the health of the Scottish population as a whole. Therefore, a follow-up analysis of the data was also carried out to explore this further (see 'An Assessment of Infrasound and Other Possible Causes of the Adverse Effects of Windfarms' Tharpaland, 2004).

This submission 'Three Windfarm Studies and An Assessment of Infrasound', presents a synopsis of theresults of the Tharpaland windfarm studies (2003b). Whilst covering most of the topics requested in the remit, the submission focuses on those issues most relevant to the main points of the Tharpaland studies (2003b, 2004), such as planning and local issues, and in relation to windfarms specifically. Tharpaland welcomes the opportunity to share their concerns and positive recommendations with the Committee and hopes they will bring clarity and benefit to those in charge of renewables policy.

2.6.5 Had the Scottish Government acted on this, and many other such recommendations and pleas from communities, situations like that endured by the residents of the Rural Sheep Farm in Scotland would not be an issue.

2.6.4 The ignoring of this evidence is untenable, thus the communities of Straiton and Dunaskin implore the councillors and planning officials to recommend refusal of this application in order to prevent such recurring situations as this. Councilors and planning officials should also recommend that the Scottish Government follow the lead of the French Council of State who annulled all provisions concerning the three successive versions of the noise measurement protocol that was supposed to protect the health of local residents.

3. Conditions[11]:

Save Straiton for Scotland and Dunaskin propose much more robust Noise Conditions to be attached to this application should it be consented. Those proposed for the Conjoined inquiry have been attached as an example of what is required to provide the minimum of protection.

Susan Crosthwaite

10 THE EFFECTS OF WINDFARMS ON MEDITATIVE RETREATERS A Human Impact Assessment Tharpaland International Retreat Centre Parkgate, Dumfries DG1 3LY 2003b

11 TOPIC : WIND TURBINE NOISE.ON BEHALF OF Save Straiton for Scotland. Core Document Save Straiton 17 Conditions Noise (Operational)

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(on behalf of Save Straiton for Scotland and the Dunaskin Community) 20.03.2024

Appendix:

1. Synopsis and Executive Summary, Appendix 1 Acoustics Report on the Rural Sheep Farm in Scotland, December 2023. Document Number: IARO24-3. Full Report available at iaro.org.nz.
2. Appendix 7 CD Save Straiton 9 IARO Conjoined Inquiry FINAL (already submitted)
3. Wind Turbine Acoustic Signature Found in proximity to Blackcraig Industrial Wind Turbines
4. Appendix 8 CD Save Straiton 11 IARO chapter 85225 (already submitted)
5. THE HIGH COURT [2024] IEHC136 [2018 8457 P] BETWEEN:MARGARET WEBSTER AND KEITH ROLLO PLAINTIFFS AND MEENACLOGHSPAR (WIND) LIMITED DEFENDANT AND [2018 8458 P] BETWEEN:ROSS SHORTEN AND JOAN CARTY PLAINTIFFS AND MEENACLOGHSPAR (WIND) LIMITED DEFENDANT JUDGMENT of Ms. Justice Emily Egan delivered on the 8th day of March 2024
6. Appendix 1: CD Save Straiton 15 Bald Hills T0145 (already submitted)
7. Media release state council of France March 17 2024
8. The Executive Summary of Three Windfarm Studies and An Assessment of Infrasound
9. Annex A Annexed to IARO REPORT No. IARO23-C1
10. THE EFFECTS OF WINDFARMS ON MEDITATIVE RETREATERS A Human Impact Assessment Tharpaland International Retreat Centre Parkgate, Dumfries DG1 3LY 2003b
11. TOPIC : WIND TURBINE NOISE.ON BEHALF OF Save Straiton for Scotland. Core Document Save Straiton 17 Conditions Noise (Operational)