



# Appendix 10.2

## Baseline Survey Details

Coolglass Wind Farm EIAR Volume 3

Coolglass Wind Farm Limited

SLR Project No.: 501.V00727.00006

26 June 2023

## APPENDIX 10.2 – BASELINE SURVEY DETAILS

### NML1 – Brennanshill. R32 R2R2

Sound level meter position: 656696, 686868

#### Equipment used at measurement location

Equipment	Description	Serial Number	Calibrated
Sound level meter	Rion NL-52	00710361	05/10/2021
Pre-amplifier	Rion NH-25	10903	05/10/2021
Microphone	Rion UC-59	19635	05/10/2021
Calibrator	Rion NC-75	34713324	05/10/2021

Field calibration value at the start of survey: 93.9 dB @ 1kHz

Field calibration value at the end of survey: 93.8 dB @ 1kHz

Drift in field calibration = 0.1 dB



#### Description of measurement location

Situated in between the two groups of proposed turbines, closer to the northern group and considered representative of dwellings near the central northern region. Rural location with a noise climate that can be described as fairly typical for rural amenity with some traffic audible on the local road, and farming activities audible, farm animals and dogs barking, natural noises such as birds singing when other noise sources abated.

The sound level meter was set up in the front garden, away from the road and the hedges. No localised sources of constant noise as the boiler is located behind the house and not in regular use currently. The farm doesn't have any equipment that is constantly running.

A rain gauge was installed at this location. This instrument uses tipping bucket with magnetic switch technology and measures a minimum rain volume of 0.20mm.

Photographs of the sound level meter at this location are provided in **Plate 10-1** to **Plate 10-4**.

#### Details of any excluded data

- data measured before 1800 hours on 08/08/2022 due to forestry logging in a few kilometres away;
- 0430 to 0700 hours every morning due to potential dawn chorus
- 0700 hours on 02/09/2022 to 1800 hours on 05/09/2022 due to music festival several kilometres away;
- any data measured during, or within 30 minutes of rainfall; and
- data showing a temporary increase in noise clearly not related to wind speed:
  - 1830 to 1920 hours on 23/08/2022
  - 1800 to 1840 hours on 01/09/2022



**Plate 10-1: NML1 sound level meter looking east**



**Plate 10-2: NML1 sound level meter looking south**



**Plate 10-3: NML1 sound level meter looking west**



**Plate 10-4: NML1 sound level meter looking north**

## NML2 – Mountain Springs R32 TP82

Sound level meter position: 654518, 688574

### Equipment used at measurement location

Equipment	Description	Serial Number	Calibrated
Sound level meter	Rion NL-52	00710359	05/10/2021
Pre-amplifier	Rion NH-25	10901	05/10/2021
Microphone	Rion UC-59	19633	05/10/2021
Calibrator	Rion NC-75	34713324	05/10/2021

Field calibration value at the start of survey: 94.0 dB @ 1kHz

Field calibration value at the end of survey: 94.0 dB @ 1kHz

Drift in field calibration = 0.0 dB



### Description of measurement location

Situated to the north west of the proposed development and considered representative of dwellings north west of the development and east of the R426. Whilst this location is not a noise sensitive location, it was selected to be set further back from the local roads, so as to provide a worst case with lower background noise. Rural location with natural noise climate of wind in vegetation and birds. Other noise sources will include activities at the ranch and occasional cars arriving and leaving. No localised sources of constant noise. The activities at the ranch include horse riding, parties, kids parties, archery, air rifle shooting.

The sound level meter was set up within a paddock that is currently not in use, away from the trees, hedges, horses and activity associated with the ranch.

This paddock is enclosed and not in use, no horses or clients enter it. No localised noise source beside it that would come on at specific times.

Photographs of the sound level meter at this location are provided in **Plate 10-5 to Plate 10-8**.

### Details of any excluded data

- data measured before 1800 hours on 08/08/2022 due to forestry logging in a few kilometres away;
- 0430 to 0700 hours every morning due to potential dawn chorus
- 0700 hours on 02/09/2022 to 1800 hours on 05/09/2022 due to music festival several kilometres away;
- any data measured during, or within 30 minutes of rainfall; and
- data showing a temporary increase in noise clearly not related to wind speed:
  - 1800 to 1910 hours on 25/08/2022.



**Plate 10-5: NML2 sound level meter looking east**



**Plate 10-6: NML2 sound level meter looking south**



**Plate 10-7: NML2 sound level meter looking north**



**Plate 10-8: NML2 view from sound level meter looking west**

## NML3 – Orchard Lower R32 D290

Sound level meter position: 656088, 689265

### Equipment used at measurement location

Equipment	Description	Serial Number	Calibrated
Sound level meter	Rion NL-52	00710358	05/10/2021
	LD-LxT	0004525	12/08/2021
Pre-amplifier	Rion NH-25	10900	05/10/2021
Microphone	Rion UC-59	19632	05/10/2021
Calibrator	Rion NC-75	34713324	05/10/2021

Field calibration value at the start of survey pt1: 93.9 dB @ 1 kHz  
Field calibration value at the end of survey pt1: 93.8 dB @ 1 kHz  
Drift in field calibration = 0.1 dB

Field calibration value at the start of survey pt2: 93.9 dB @ 1kHz  
Field calibration value at the end of survey pt2: 93.8 dB @ 1kHz  
Drift in field calibration = 0.1 dB



### Description of measurement location

Situated to the north of the proposed development and considered representative of dwellings within Orchard Lower and Ballycurragh. Rural location with the dominant noise noted to be wind disturbed vegetation with contribution from natural sources such as birdsong. Period road traffic, working farm equipment such as tractors, and a dog can also contribute to the noise source at this location.

The sound level meter was installed in the garden area of the property away from tall trees and mature vegetation. It was not considered appropriate to locate the sound level meter on the wind farm side of this property due to the presence of a wood comprising numerous mature and tall trees. The chosen location was considered to represent an area of amenity and least likely to be influenced by localised sources of noise such as wind disturbed vegetation, boiler flues, pumps or fan outlets.

The sound level meter initially installed at this location suffered a fault during the first service visit on 19<sup>th</sup> August 2022 and could not be set running again. The unit showed good calibration and the data recorded to this point appeared representative, and so has been retained in the analysis. A replacement sound level meter was installed on 9<sup>th</sup> September 2022.

Photographs of the sound level meter at this location are provided in **Plate 10-9 to Plate 10-12**.

### Details of any excluded data

- data measured before 1800 hours on 08/08/2022 due to forestry logging in a few kilometres away;
- 0430 to 0700 hours every morning due to potential dawn chorus
- any data measured during, or within 30 minutes of rainfall; and
- data showing a temporary increase in noise clearly not related to wind speed:
  - 2010 to 2110 hours on 11/08/2022;
  - 19:40 to 20:40 hours on 13/08/2022.





**Plate 10-9: NML3 sound level meter looking west**



**Plate 10-10: NML3 sound level meter looking north**



**Plate 10-11: NML3 sound level meter looking south**



**Plate 10-12: NML3 sound level meter looking east**

## NML4 – Coolglass House R14 AE65

Sound level meter position: 656646, 685265

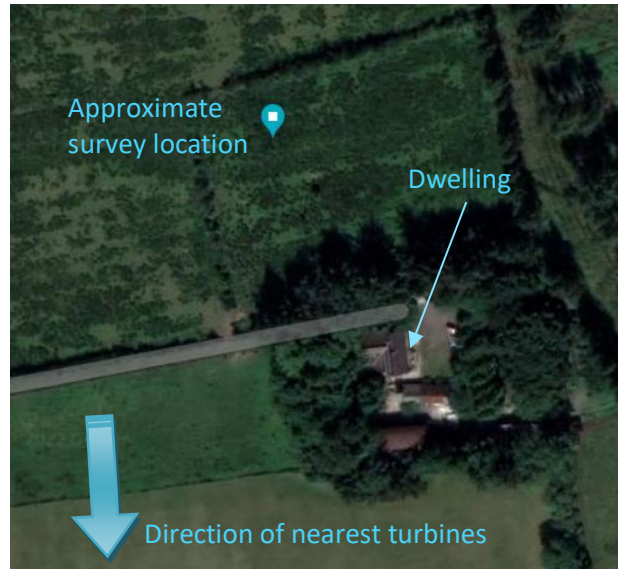
### Equipment used at measurement location

Equipment	Description	Serial Number	Calibrated
Sound level meter	Rion NL-52	00710362	05/10/2021
Pre-amplifier	Rion NH-25	10904	05/10/2021
Microphone	Rion UC-59	19636	05/10/2021
Calibrator	Rion NC-75	34713324	05/10/2021

Field calibration value at the start of survey: 93.9 dB @ 1 kHz

Field calibration value at the end of survey: 93.8 dB @ 1 kHz

Drift in field calibration = 0.1 dB



### Description of measurement location

Situated in between the two groups of proposed turbines, closer to the southern group and considered representative of dwellings near the central southern region. It was not appropriate to measure near to the dwelling or with the garden area due to the presence of numerous mature trees and a pump that fed the house water from a well which operates sporadically. A location was chosen in an adjacent paddock that was not in use during the survey.

No localised sources of constant noise, position was distant from any tall vegetation. Noise climate can be described as rural amenity, farm animals and dogs in the distance, natural noises such as birds singing when other noise sources abated. At this location there was noted to be little traffic noise influence.

Photographs of the sound level meter at this location are provided in **Plate 10-13** to **Plate 10-16**.

### Details of any excluded data

- data measured before 1800 hours on 08/08/2022 due to forestry logging in a few kilometres away;
- 0430 to 0700 hours every morning due to potential dawn chorus
- 0700 hours on 02/09/2022 to 1800 hours on 05/09/2022 due to music festival several kilometres away;
- any data measured during, or within 30 minutes of rainfall; and
- data showing a temporary increase in noise clearly not related to wind speed:
  - 1850 to 2010 hours on 10/08/2022.



**Plate 10-13: NML4 sound level meter looking east**



**Plate 10-14: NML4 sound level meter looking south**



**Plate 10-15: NML4 sound level meter looking north**



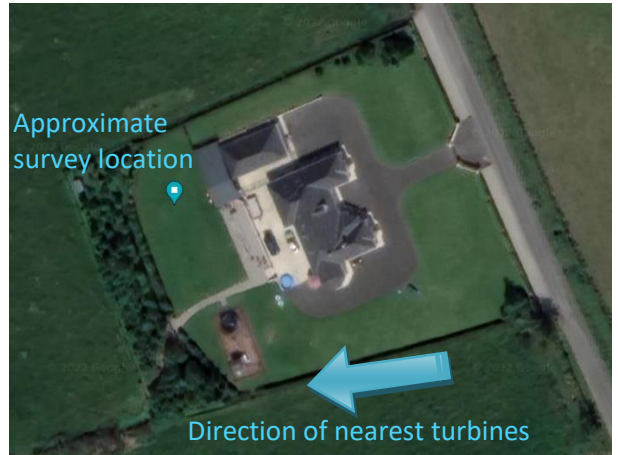
**Plate 10-16: NML4 sound level meter looking west**

## NML5 – Crissard R14 PW32

Sound level meter position: 658312, 684901

### Equipment used at measurement location

Equipment	Description	Serial Number	Calibrated
Sound level meter	LD – LxT	0004479	12/08/2022



Field calibration value at the start of survey: 114.0 dB

Field calibration value at the end of survey: 114.0 dB

Drift in field calibration = 0.0 dB

### Description of measurement location

Situated to the east of the southern group of proposed turbines and considered representative of dwellings near to Crissard. The sound level meter was set up in the rear garden of the property approximately 8 m from the side of a building and the hedgerow. There were no localised sources of constant noise, position was on the open lawn.

Noise climate can be described as rural amenity with natural noises such as birds and wind disturbed vegetation, distant and passing road traffic noise could be heard.

The sound level meter installed initially was faulty and data was discarded up to the replacement sound level meter was installed on 23<sup>rd</sup> August 2022.

Photographs of the sound level meter at this location are provided in **Plate 10-17** to **Plate 10-20**.

### Details of any excluded data

- 0430 to 0700 hours every morning due to potential dawn chorus
- 0700 hours on 02/09/2022 to 1800 hours on 05/09/2022 due to music festival several kilometres away;
- any data measured during, or within 30 minutes of rainfall; and
- data showing a temporary increase in noise clearly not related to wind speed:
  - 1910 to 1940 hours on 30/08/2022; and
  - 1930 to 1950 hours on 01/09/2022.



**Plate 10-17: NMLS sound level meter looking east**



**Plate 10-18: NMLS sound level meter looking south**



**Plate 10-19: NML5 sound level meter looking north**



**Plate 10-20: NML5 sound level meter looking west**



## NML6 – Cul Eala R14 H563

Sound level meter position: 657139, 682973

### Equipment used at measurement location

Equipment	Description	Serial Number	Calibrated
Sound level meter	LD-LxT	0006600	28/09/2021

Field calibration value at the start of survey: 114.0 dB

Field calibration value at the end of survey: 114.0 dB

Drift in field calibration = 0.0 dB

### Description of measurement location

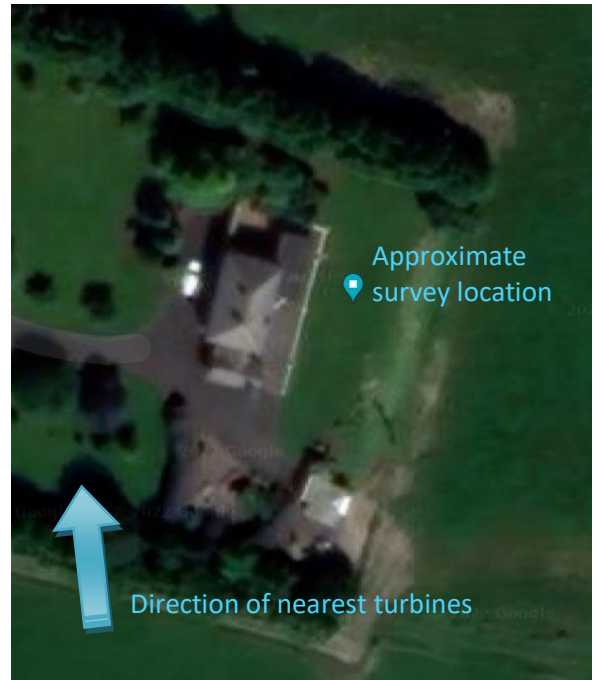
Situated to the south of the proposed development, representative of dwellings near Grennan and the south of the site. The sound level meter was installed in the rear garden in open space away from any sources of constant noise or mature vegetation.

The noise climate at this location was influenced by distant road traffic noise and natural sources such as vegetation and birds.

Photographs of the sound level meter at this location are provided in **Plate 10-21** to **Plate 10-24**.

### Details of any excluded data

- data measured before 1800 hours on 08/08/2022 due to forestry logging in a few kilometres away;
- 0430 to 0700 hours every morning due to potential dawn chorus
- 0700 hours on 02/09/2022 to 1800 hours on 05/09/2022 due to music festival several kilometres away;
- any data measured during, or within 30 minutes of rainfall; and
- data showing a temporary increase in noise clearly not related to wind speed:
  - 1400 to 1520 hours on 21/08/2022; and
  - 1630 to 1950 hours on 21/08/2022.





**Plate 10-21: NML6 sound level meter looking east**



**Plate 10-22: NML6 sound level meter looking south**



**Plate 10-23: NML6 sound level meter looking north**



**Plate 10-24: NML6 sound level meter looking west**



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