Appendix 10.1

Glossary of Terms

Coolglass Wind Farm EIAR Volume 3

Coolglass Wind Farm Limited

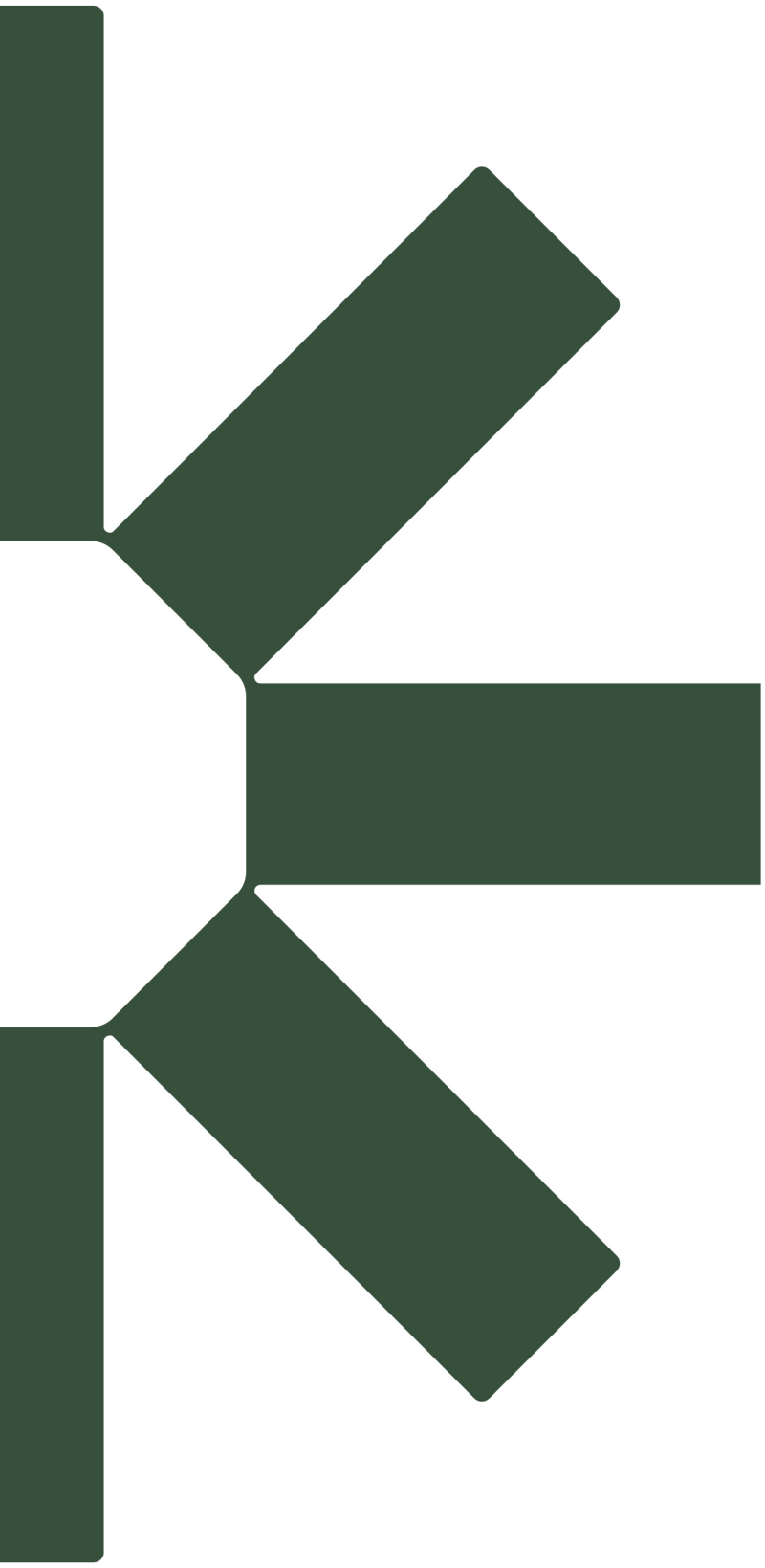
SLR Project No.: 501.V00727.00006

26 June 2023

APPENDIX 10.1 – GLOSSARY

Terminology	Description
A-weighting	a filter that weights individual frequencies of sound to better represent the frequency response of the human ear when assessing the likely effects of noise on humans
acoustic character	one or more distinctive features of a sound (e.g. tones, whines, whistles, impulses) that set it apart from the background noise against which it is being judged, possibly leading to a greater subjective effect than the level of the sound alone might suggest
ambient noise	All-encompassing noise associated with a given environment, usually a composite of sounds from many sources both far and near, often with no particular sound being dominant
attenuation	the reduction in level of a sound between the source and a receiver due to any combination of effects including: distance, atmospheric absorption, acoustic screening, the presence of a building façade, etc.
background noise	the noise level rarely fallen below in any given location over any given time period. The L_{A90} indices is often used to represent the background noise level.
daytime hours	07.00 to 23.00 any day of the week. Different to the quiet daytime hours
dB	abbreviation for 'decibel'
dB(A)	abbreviation for the decibel level of a sound that has been A-weighted
decibel	the unit normally employed to measure the magnitude of sound
directivity	the property of a sound source that causes more sound to be radiated in one direction than another
equivalent continuous sound pressure level	the steady sound level which has the same energy as a time varying sound signal when averaged over the same time interval, T, denoted by $L_{Aeq,T}$
frequency	the number of acoustic pressure fluctuations per second occurring about the atmospheric mean pressure (also known as the 'pitch' of a sound)
ground effects	the modification of sound at a receiver location due to the interaction of the sound wave with the ground along its propagation path from source to receiver. Described using the term 'G', and ranges between 0 (hard), 0.5 (mixed) and 1 (soft).
Hertz (Hz)	the unit used to measure the frequency of a sound, equal to cycles per second of acoustic pressure fluctuations about the atmospheric mean pressure
L_{Aeq}	the abbreviation of the A-weighted equivalent continuous sound pressure level
L_{A10}	the abbreviation of the 10-percentile exceeded sound level, often used for the measurement of road traffic noise
L_{A90}	the abbreviation of the 90-percentile exceeded sound level, often used for the measurement of background noise
noise	physically: a regular and ordered oscillation of air molecules that travels away from the source of vibration and creates fluctuating positive and negative acoustic pressure above and below atmospheric pressure.

Terminology	Description
	Subjectively: sound that evokes a feeling of displeasure in the environment in which it is heard, and is therefore unwelcomed by the receiver
noise emission	the noise emitted by a source of sound
noise immission	the sound pressure level at a receiver
night-time hours	defined by ETSU-R-97 as the hours between 23.00 and 07.00, any day
percentile exceeded sound level	the noise level exceeded for n% of the time over a given time period, T, denoted by $L_{An,T}$
quiet daytime hours	defined by ETSU-R-97 as the hours between 18.00 and 23.00 Monday to Friday, 13.00 and 23.00 Saturdays and 07.00 and 23.00 Sundays
receiver	a person or property exposed to the noise being considered
respite	a period of reduced wind turbine noise immission level occurring during certain wind conditions
sound	physically: a regular and ordered oscillation of air molecules that travels away from the source of vibration and creates fluctuating positive and negative acoustic pressure above and below atmospheric pressure subjectively: the sensation of hearing excited by the acoustic oscillations described above (see also 'noise')
sound level meter	an instrument for measuring sound pressure level
sound power level	the total sound power radiated by a source, in decibels
sound pressure level	a measure of the sound pressure at a point, in decibels
spectrum	a description of the amplitude of a sound as a function of frequency
standardised wind speed	values of wind speed at hub height corrected to a standardised height of ten metres using the same procedure as used in wind turbine emission testing
tone	the concentration of acoustic energy into a very narrow frequency range
wind shear	the change in wind speed with height above ground



Making Sustainability Happen