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Ballyfeeny Green Energy Project







Environmental Impact Assessment Report Volume III

Appendix 10.1 – Glossary of Acoustic Terminology

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Glossary of Acoustic Terminology

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Terminology	Description
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	Encompassing sound, at a given place. Usually, a composite of sounds from many sources near and far.
Annoyance	A feeling of displeasure in this case evoked by noise
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.
Audio Frequency	Any frequency of a sound wave that lies within the frequency limits of audibility of a healthy human ear, generally accepted as being from 20 Hz to 20,000 Hz
A-weighting	Frequency weighting scale to account for non-linear response of the human ear. Used so that the measured noise corresponds roughly to the overall level of noise that is discerned by the average human. Denoted by suffix A in parameters such as L_{Aeq}, LAF10, etc.
Background Noise	A-weighted noise level of exceeded for 90% of the measurement time. Denoted LAF90. Often classed according to daytime, evening or night time periods.
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
L_{Aeq}, T	Equivalent continuous A-weighted sound pressure level. The value of the sound pressure level in decibels of continuous steady sound that, within a specified time interval, T = t2 – t1, has the same mean-squared sound pressure as a sound that varies with time
L_{AF}	The RMS (root mean square) of the instantaneous sound pressure over a given period of time (T). T is usually Fast (0.125sec) or Slow (1sec)
L_{AF10}	The noise level just exceeded for 10% of the measurement period, A-weighted and calculated by Statistical Analysis.
L_{AF90}	The noise level exceeded for 90% of the measurement period, A-weighted and calculated by Statistical Analysis.
$L_{Ar,T}$	The Rated noise level. The A-weighted, L_{eq}, Sound Pressure Level of an industrial noise during a specified time period, adjusted for Tonal, Impulsiveness and other characteristics.
External Noise	The noise level, in decibels, measured outside a building
Frequency	The number of acoustic pressure fluctuations per second occurring about the atmospheric mean pressure (also known as the 'pitch' of
Frequency Analysis	The analysis of a sound into its frequency components

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**
Hertz	**The unit normally employed to measure the frequency of a sound, equal to cycles per second of acoustic pressure fluctuations about the atmospheric mean pressure**
Impulsive Sound	**A sound having all its energy concentrated in a very short time period**

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