Technical Appendix 3.6

Annex 1

Shadow Flicker Meteorological Data

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Annex 1 – Shadow Flicker Meteorological Data

Sunshine Hours - Saughall

Table 1 below summarises the raw data received from the historical weather station data for Saughall weather station.

Table 1 - Summary of Meteorological Data for Saughall from 1991-2020

Month	Number of Days in Month	Average Sunshine Hours per Month	Hours per Day
January	31	38.16	1.23
February	28	65.3	2.33
March	31	103.08	3.33
April	30	147.94	4.93
May	31	196.49	6.34
June	30	164.47	5.48
July	31	158.89	5.13
August	31	155.02	5.00
September	30	116.96	3.90
October	31	83.38	2.69
November	30	54.32	1.81
December	31	38.67	1.25

Wind Parameters – Prestwick Airport

Table 2 below outlines the wind parameters used within windPRO model for the Proposed Development. It adopts a 16 degree sector with 7,446 hours of wind per year (equivalent to the development being operational for 85 % of the year). Wind distribution data for the site is taken from the historical weather station data for Prestwick Airport.

Table 2 - Wind Distribution at Prestwick Airport from 1993-2021

Direction	Wind Distribution	Hours of Wind / year	Operational Hours (85%)
N	1.637%	143.40	121.89
NNE	2.149%	188.25	160.01
NE	4.478%	392.27	333.43
ENE	5.018%	439.58	373.64
E	7.740%	678.02	576.32
ESE	5.532%	484.60	411.91
SE	5.047%	442.12	375.80
SSE	4.904%	429.59	365.15
S	10.639%	931.98	792.18
SSW	6.777%	593.67	504.62

SW	9.036%	791.55	672.82
WSW	11.493%	1006.79	855.77
W	12.206%	1069.25	908.86
WNW	6.573%	575.79	489.43
NW	4.871%	426.70	362.69
NNW	1.899%	166.35	141.40

References

UK Met Office (2025). Airfield Climate Data. Available at: https://www.metoffice.gov.uk/services/transport/aviation/regulated/airfield-climate-data#Prestwick. Accessed 02/12/2025.

UK Met Office (2025). Location-specific long-term averages. Available at: https://www.metoffice.gov.uk/research/climate/maps-and-data/location-specific-long-term-averages/gcuurcg7q. Accessed 02/12/2025.