



Bloch Wind Farm

Technical Appendix 11.4: Propagation Height Valley Effect

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1.1 Introduction

1.1.1 To model the propagation of noise between each proposed turbine and residential property in accordance with the Institute of Acoustics Good Practice Guide (IoA GPG) the mean propagation height has to be calculated in order to determine whether the correction specified by the guidance for propagation over a concave ground profile, or where the ground falls away significantly between the source and receiver, is applicable.

1.1.2 Instances where the threshold specified by the IoA GPG is exceeded, and 3dB(A) has therefore been added to the noise level predicted by the ISO 9613-2 propagation model due to that specific turbine at that specific property, are highlighted in the Table 1 below.

Table 1 - Instances where Ground Correction Applied

House ID	Turbine ID																		
	T1	T2	T3	T4	T5	T7	T8	T9	T10	T11	T12	T14	T15	T16	T17	T18	T19	T20	T21
H1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
H4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0
H8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
H20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3
H22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3
H24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3
H25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3
H26	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	3	3	3	3
H27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3
H28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3
H29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
H30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3
H31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3
H32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3
H33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3
H34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3
H35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3
H36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
H37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
H38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3

House ID	Turbine ID																			
	T1	T2	T3	T4	T5	T7	T8	T9	T10	T11	T12	T14	T15	T16	T17	T18	T19	T20	T21	
H39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	
H40	3	3	3	3	3	3	3	3	3	3	3	3	3	3	0	3	3	3	3	
H43	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	3	
H44	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	3	
H45	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	
H46	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	
H48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	