



APPENDIX 11-6

**PREDICTED WIND TURBINE
NOISE LEVELS FOR VARIOUS
HUB HEIGHTS-
OMNIDIRECTIONAL**

Table 11.A5.1 Predicted Cumulative Noise Levels for Glenard Wind Turbine Hub Height of 96 m.

Location	Predicted Noise Level dB L _{A90} at Standardised Wind Speed m/s at 10m A.G.L					
	4	5	6	7	8	≥9
H001	25.5	27.6	31.0	32.8	33.7	34.2
H002	24.9	26.9	30.3	32.2	33.2	33.8
H003	24.5	26.4	29.8	31.8	32.9	33.5
H004	24.3	26.0	29.5	31.5	32.6	33.2
H005	24.2	26.0	29.3	31.3	32.3	32.9
H007	23.9	25.7	29.4	31.3	32.4	32.9
H008	23.7	25.6	29.1	31.1	32.2	32.8
H009	23.3	25.4	29.3	31.3	32.3	33.0
H010	23.1	25.3	29.2	31.2	32.2	33.0
H011	23.2	25.5	29.4	31.4	32.5	33.2
H012	23.2	25.5	29.4	31.3	32.4	33.0
H013	23.2	25.7	29.7	31.6	32.6	33.4
H014	23.0	25.5	29.5	31.4	32.5	33.2
H015	23.5	26.2	30.3	32.1	33.2	33.9
H016	23.6	26.4	30.5	32.3	33.4	34.1
H017	23.8	26.6	30.7	32.4	33.5	34.2
H018	23.8	26.6	30.7	32.4	33.5	34.2
H019	23.9	26.6	30.7	32.5	33.5	34.3
H020	24.0	26.9	31.0	32.8	33.8	34.5
H021	25.6	28.3	32.5	34.3	35.3	36.0
H022	25.2	28.0	32.1	33.9	35.0	35.7
H023	25.2	27.8	32.0	33.8	34.9	35.7
H024	25.7	28.4	32.6	34.4	35.5	36.2
H025	26.2	29.0	33.2	34.9	36.0	36.6
H026	26.0	28.9	33.0	34.7	35.7	36.4
H027	26.6	29.5	33.7	35.3	36.4	37.0
H028	26.1	29.1	33.2	34.8	35.8	36.5
H029	26.1	29.1	33.2	34.8	35.8	36.5
H030	24.6	27.2	31.4	33.3	34.4	35.2
H031	24.7	27.3	31.4	33.2	34.2	35.0
H032	24.8	27.3	31.3	33.1	34.0	34.7
H033	26.4	29.4	33.5	35.1	36.1	36.8
H034	26.8	29.9	34.0	35.6	36.5	37.2
H035	27.0	30.2	34.3	35.8	36.8	37.4
H036	26.8	30.0	34.0	35.6	36.6	37.2
H037	27.9	31.0	35.1	36.7	37.7	38.3
H038	28.0	31.2	35.3	36.8	37.7	38.3
H039	27.5	30.8	34.9	36.3	37.3	37.9
H040	28.1	31.4	35.4	36.9	37.8	38.4
H041	28.8	32.2	36.2	37.6	38.5	39.1
H042	28.7	32.1	36.1	37.4	38.3	38.9
H043	29.5	32.9	36.9	38.2	39.1	39.7
H044	30.2	33.7	37.6	38.9	39.8	40.3
H045	30.5	34.0	37.9	39.2	40.0	40.5
H046	30.5	34.0	37.9	39.1	40.0	40.5
H047	30.1	33.7	37.6	38.8	39.6	40.1
H048	29.8	33.4	37.2	38.4	39.2	39.7
H049	29.9	33.6	37.4	38.6	39.4	39.9
H050	29.5	33.2	37.0	38.2	38.9	39.5

H051	29.5	33.2	36.9	38.2	38.9	39.4
H052	29.6	33.4	37.1	38.2	38.9	39.4
H053	29.4	33.1	36.8	37.9	38.6	39.1
H054	29.5	33.3	36.9	38.1	38.7	39.2
H055	29.5	33.3	36.9	38.0	38.7	39.2
H056	29.7	33.5	37.1	38.3	38.9	39.4
H057	29.9	33.7	37.3	38.4	39.0	39.5
H058	29.8	33.5	37.1	38.2	38.8	39.3
H059	29.7	33.4	36.9	38.1	38.7	39.1
H060	30.1	33.6	37.0	38.2	38.9	39.3
H061	30.1	33.2	36.6	37.9	38.7	39.1
H062	31.7	35.2	38.6	39.7	40.4	40.8
H063	33.1	37.4	40.9	41.8	42.1	42.4
H064	34.4	37.2	40.2	41.5	42.4	43.0
H065	30.7	31.7	36.2	38.7	39.8	40.4
H066	30.3	31.3	35.8	38.3	39.5	40.2
H067	30.5	31.6	36.1	38.6	39.7	40.4
H068	30.3	31.4	36.0	38.5	39.6	40.4
H069	31.1	32.1	36.7	39.2	40.3	41.0
H070	31.0	32.0	36.6	39.1	40.2	41.0
H071	34.1	35.1	39.7	42.2	43.4	44.1
H072	33.4	34.7	39.4	42.0	43.2	44.1
H073	32.6	34.5	39.4	41.9	43.3	44.4
H074	33.0	34.9	39.8	42.3	43.8	45.0
H075	31.6	33.6	38.4	40.9	42.3	43.4
H076	28.5	30.0	34.6	37.1	38.3	39.2
H077	33.2	37.9	41.5	42.3	42.6	43.0
H078	30.3	34.4	38.3	39.7	40.5	41.2
H079	31.1	34.8	39.0	40.7	41.8	42.7
H080	32.7	36.1	40.5	42.4	43.6	44.6
H081	28.4	31.7	36.0	37.8	39.0	39.9
H082	27.5	31.1	35.2	37.0	38.1	39.0
H083	27.2	30.2	34.4	36.4	37.7	38.7
H084	27.6	30.6	34.8	36.8	38.0	39.0
H085	28.8	31.9	35.8	37.7	38.8	39.7
H086	30.9	34.1	37.9	39.6	40.7	41.4
H087	31.0	34.2	37.9	39.6	40.6	41.4
H088	32.7	33.7	38.1	40.4	41.3	41.8
H089	32.1	33.2	37.5	39.9	40.8	41.4
H090	31.8	33.0	37.3	39.7	40.7	41.2
H091	31.6	32.8	37.2	39.6	40.5	41.1
H092	31.3	32.5	36.9	39.3	40.3	40.9
H093	30.7	31.8	36.1	38.6	39.5	40.1

Table 11.A5.2 Predicted Cumulative Noise Levels for Glenard Wind Turbine Hub Height of 105 m.

Location	Predicted Noise Level dB L _{A90} at Standardised Wind Speed m/s at 10m A.G.L					
	4	5	6	7	8	≥9
H001	25.6	27.7	31	32.7	33.7	34.2
H002	25.1	27.2	30.5	32.3	33.3	33.9
H003	24.5	26.4	29.8	31.8	32.9	33.5
H004	24.3	26.1	29.5	31.5	32.6	33.2
H005	24.2	26.1	29.4	31.3	32.3	32.9
H007	23.9	25.8	29.4	31.3	32.4	32.9
H008	23.6	25.5	29	30.9	32.1	32.7
H009	23.3	25.5	29.3	31.2	32.3	33
H010	23.1	25.3	29.2	31.1	32.2	33
H011	23.2	25.6	29.5	31.4	32.4	33.2
H012	23.2	25.5	29.4	31.3	32.3	33
H013	23.1	25.7	29.6	31.5	32.5	33.3
H014	23	25.5	29.4	31.3	32.4	33.1
H015	23.5	26.3	30.4	32.1	33.2	33.9
H016	23.7	26.6	30.6	32.3	33.4	34.1
H017	23.9	26.7	30.7	32.4	33.5	34.2
H018	23.9	26.7	30.7	32.4	33.5	34.2
H019	23.9	26.7	30.8	32.5	33.5	34.3
H020	24.1	26.9	31	32.7	33.8	34.5
H021	25.6	28.4	32.5	34.2	35.3	36
H022	25.3	28.1	32.2	34	35	35.7
H023	25.2	27.8	32	33.8	34.9	35.7
H024	25.9	28.7	32.8	34.5	35.6	36.2
H025	26.3	29.2	33.3	35	36	36.7
H026	26	29	33	34.7	35.7	36.4
H027	26.7	29.7	33.7	35.4	36.4	37.1
H028	26.1	29.1	33.2	34.8	35.8	36.5
H029	26.1	29.1	33.2	34.8	35.8	36.5
H030	24.7	27.4	31.5	33.4	34.5	35.2
H031	24.9	27.4	31.5	33.3	34.3	35
H032	24.8	27.4	31.3	33	34	34.7
H033	26.4	29.5	33.5	35.1	36.1	36.8
H034	26.8	30	34	35.5	36.5	37.2
H035	27.2	30.4	34.4	35.9	36.9	37.5
H036	26.8	30	34.1	35.6	36.6	37.2
H037	28.1	31.3	35.3	36.8	37.8	38.4
H038	28	31.3	35.3	36.7	37.7	38.3
H039	27.6	30.9	34.9	36.3	37.3	37.9
H040	28.1	31.5	35.5	36.9	37.8	38.4
H041	28.9	32.3	36.2	37.6	38.5	39
H042	28.7	32.2	36.1	37.4	38.3	38.9
H043	29.5	33	36.9	38.2	39.1	39.7
H044	30.3	33.8	37.7	38.9	39.8	40.3
H045	30.6	34.1	38	39.2	40.1	40.6
H046	30.6	34.2	38	39.2	40	40.5
H047	30.2	33.9	37.6	38.8	39.6	40.1
H048	29.8	33.6	37.3	38.4	39.2	39.7
H049	30	33.8	37.5	38.6	39.4	39.9
H050	29.6	33.4	37.1	38.2	39	39.5

H051	29.6	33.4	37	38.2	38.9	39.4
H052	29.7	33.6	37.1	38.2	38.9	39.4
H053	29.5	33.3	36.8	37.9	38.6	39.1
H054	29.6	33.5	37	38.1	38.7	39.2
H055	29.6	33.5	36.9	38	38.7	39.2
H056	29.8	33.7	37.2	38.2	38.9	39.4
H057	30	33.9	37.4	38.4	39	39.5
H058	29.9	33.7	37.1	38.2	38.8	39.3
H059	29.8	33.6	37	38	38.7	39.1
H060	30.2	33.7	37.1	38.2	38.8	39.3
H061	30.2	33.4	36.7	37.9	38.7	39.1
H062	31.8	35.4	38.7	39.7	40.4	40.8
H063	33.3	37.7	41	41.7	42.1	42.4
H064	34.5	37.4	40.2	41.5	42.4	43
H065	30.7	31.7	36.2	38.7	39.8	40.4
H066	30.3	31.3	35.9	38.3	39.5	40.2
H067	30.5	31.6	36.1	38.6	39.7	40.4
H068	30.3	31.5	36	38.5	39.6	40.4
H069	31.1	32.1	36.7	39.2	40.3	41
H070	31	32	36.6	39.1	40.2	41
H071	34.1	35.1	39.7	42.2	43.4	44.1
H072	33.4	34.7	39.4	42	43.2	44.1
H073	32.6	34.5	39.4	41.9	43.3	44.4
H074	33	35	39.8	42.3	43.8	45
H075	31.6	33.6	38.4	40.9	42.3	43.4
H076	28.5	30	34.6	37.1	38.3	39.2
H077	33.3	38.1	41.6	42.3	42.6	43
H078	30.4	34.6	38.4	39.6	40.5	41.2
H079	31.2	34.9	39	40.7	41.8	42.7
H080	32.8	36.3	40.6	42.4	43.6	44.6
H081	28.4	31.9	36	37.8	39	39.9
H082	27.6	31.2	35.3	37	38.1	39
H083	27.2	30.2	34.4	36.4	37.7	38.7
H084	27.6	30.7	34.8	36.8	38	39
H085	28.8	31.9	35.8	37.7	38.8	39.7
H086	30.9	34.1	37.9	39.6	40.7	41.4
H087	31	34.2	37.9	39.6	40.6	41.4
H088	32.7	33.7	38.1	40.4	41.3	41.8
H089	32.1	33.2	37.6	39.9	40.8	41.4
H090	31.8	33	37.3	39.7	40.7	41.2
H091	31.6	32.9	37.2	39.6	40.5	41.1
H092	31.3	32.6	36.9	39.3	40.3	40.9
H093	30.7	31.8	36.1	38.5	39.5	40.1

Table 11.A5.3 Predicted Cumulative Noise Levels for Glenard Wind Turbine Hub Height of 107 m.

Location	Predicted Noise Level dB L _{A90} at Standardised Wind Speed m/s at 10m A.G.L					
	4	5	6	7	8	≥9
H001	25.6	27.7	31.0	32.7	33.7	34.2
H002	25.1	27.2	30.5	32.3	33.3	33.9
H003	24.5	26.4	29.8	31.8	32.9	33.5
H004	24.3	26.1	29.5	31.5	32.6	33.2
H005	24.2	26.1	29.4	31.3	32.3	32.9
H007	23.9	25.8	29.4	31.3	32.4	32.9
H008	23.6	25.6	29.0	30.9	32.1	32.7
H009	23.3	25.5	29.3	31.2	32.3	33.0
H010	23.2	25.5	29.3	31.2	32.3	33.0
H011	23.2	25.6	29.5	31.4	32.4	33.2
H012	23.2	25.6	29.4	31.3	32.3	33.0
H013	23.1	25.7	29.6	31.4	32.5	33.3
H014	23.0	25.5	29.5	31.3	32.4	33.1
H015	23.5	26.3	30.4	32.1	33.2	33.9
H016	23.7	26.6	30.6	32.3	33.4	34.1
H017	23.9	26.7	30.7	32.4	33.5	34.2
H018	23.8	26.7	30.7	32.4	33.5	34.2
H019	23.9	26.8	30.8	32.5	33.5	34.3
H020	24.1	27.0	31.0	32.7	33.8	34.5
H021	25.7	28.5	32.6	34.3	35.3	36.0
H022	25.3	28.2	32.2	34.0	35.0	35.7
H023	25.2	27.9	32.0	33.8	34.9	35.7
H024	25.9	28.8	32.8	34.5	35.6	36.2
H025	26.3	29.2	33.3	35.0	36.0	36.7
H026	26.0	29.0	33.0	34.7	35.7	36.4
H027	26.7	29.7	33.7	35.4	36.4	37.1
H028	26.1	29.2	33.2	34.8	35.8	36.5
H029	26.1	29.2	33.2	34.8	35.8	36.5
H030	24.7	27.4	31.5	33.4	34.5	35.2
H031	24.9	27.5	31.5	33.3	34.3	35.0
H032	24.8	27.4	31.3	33.0	34.0	34.7
H033	26.4	29.5	33.5	35.1	36.1	36.8
H034	26.8	30.0	34.0	35.5	36.5	37.2
H035	27.2	30.5	34.5	35.9	36.9	37.5
H036	26.8	30.1	34.1	35.6	36.6	37.2
H037	28.1	31.3	35.4	36.8	37.8	38.4
H038	28.0	31.4	35.3	36.7	37.7	38.3
H039	27.6	31.0	34.9	36.3	37.3	37.9
H040	28.1	31.5	35.5	36.9	37.8	38.4
H041	28.9	32.3	36.2	37.6	38.5	39.0
H042	28.7	32.2	36.1	37.4	38.3	38.9
H043	29.5	33.1	36.9	38.2	39.1	39.7
H044	30.3	33.8	37.7	38.9	39.8	40.3
H045	30.6	34.1	38.0	39.2	40.1	40.6
H046	30.6	34.2	38.0	39.2	40.0	40.5
H047	30.2	33.9	37.6	38.8	39.6	40.1
H048	29.9	33.7	37.3	38.5	39.2	39.7
H049	30.0	33.8	37.5	38.6	39.4	39.9
H050	29.6	33.5	37.1	38.2	39.0	39.5

H051	29.6	33.5	37.1	38.2	38.9	39.4
H052	29.7	33.7	37.2	38.2	38.9	39.4
H053	29.5	33.4	36.9	37.9	38.6	39.1
H054	29.6	33.6	37.0	38.1	38.7	39.2
H055	29.6	33.5	37.0	38.0	38.7	39.2
H056	29.8	33.8	37.2	38.2	38.9	39.4
H057	30.0	34.0	37.4	38.4	39.0	39.5
H058	29.9	33.8	37.2	38.2	38.8	39.3
H059	29.8	33.7	37.0	38.0	38.7	39.1
H060	30.2	33.8	37.1	38.2	38.8	39.3
H061	30.2	33.5	36.7	37.9	38.7	39.1
H062	31.8	35.5	38.7	39.7	40.4	40.8
H063	33.3	37.7	41.0	41.7	42.1	42.4
H064	34.5	37.4	40.3	41.5	42.4	43.0
H065	30.7	31.7	36.2	38.7	39.8	40.4
H066	30.3	31.3	35.9	38.3	39.5	40.2
H067	30.5	31.6	36.1	38.6	39.7	40.4
H068	30.3	31.5	36.0	38.5	39.6	40.4
H069	31.1	32.2	36.7	39.2	40.3	41.0
H070	31.0	32.1	36.6	39.1	40.2	41.0
H071	34.1	35.1	39.7	42.2	43.4	44.1
H072	33.4	34.7	39.4	42.0	43.2	44.1
H073	32.6	34.5	39.4	41.9	43.3	44.4
H074	33.0	35.0	39.8	42.3	43.8	45.0
H075	31.6	33.6	38.4	40.9	42.3	43.4
H076	28.5	30.1	34.6	37.1	38.3	39.2
H077	33.5	38.4	41.8	42.5	42.8	43.1
H078	30.4	34.7	38.4	39.6	40.4	41.2
H079	31.2	35.0	39.0	40.7	41.8	42.7
H080	32.8	36.3	40.6	42.4	43.6	44.6
H081	28.4	31.9	36.0	37.8	39.0	39.9
H082	27.6	31.3	35.3	37.0	38.1	39.0
H083	27.2	30.3	34.4	36.4	37.7	38.7
H084	27.6	30.7	34.8	36.8	38.0	39.0
H085	28.8	31.9	35.8	37.7	38.8	39.7
H086	30.9	34.1	37.9	39.6	40.6	41.4
H087	31.0	34.2	37.9	39.6	40.6	41.4
H088	32.7	33.7	38.1	40.4	41.3	41.8
H089	32.1	33.2	37.6	39.9	40.8	41.4
H090	31.8	33.0	37.3	39.7	40.7	41.2
H091	31.6	32.9	37.2	39.6	40.5	41.1
H092	31.3	32.6	36.9	39.3	40.3	40.9
H093	30.7	31.8	36.1	38.5	39.5	40.1