

Appendix 7.F

Noise: Noise Assessment – Night-Time (Cumulative)

Table 7.F1 Night-time Noise Assessment (Cumulative)

Noise Parameters, $L_{A90, 10mins}$, dB	Standardised 10m Height Wind Speed (V_{10}) ms^{-1}									
	3	4	5	6	7	8	9	10	11	12
R1 – Meikle Hill										
Background Noise Level	20.5	20.6	20.9	21.3	21.9	22.7	23.7	24.9	26.3	27.9
ETSU-R-97 Derived Noise Limit	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
Predicted Turbine Noise Level	26.9	27.1	30.6	34.4	36.0	36.5	36.4	36.3	36.3	36.3
Margin Under Noise Limit#	-16.1	-15.9	-12.4	-8.6	-7.0	-6.5	-6.6	-6.7	-6.7	-6.7
R2 – Nith Lodge										
Background Noise Level	20.5	20.6	20.9	21.3	21.9	22.7	23.7	24.9	26.3	27.9
ETSU-R-97 Derived Noise Limit	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
Predicted Turbine Noise Level	25.7	25.9	29.5	33.2	34.8	35.3	35.1	35.0	35.0	35.0
Margin Under Noise Limit#	-17.3	-17.1	-13.5	-9.8	-8.2	-7.7	-7.9	-8.0	-8.0	-8.0
R3 – Maneight										
Background Noise Level	20.5	20.6	20.9	21.3	21.9	22.7	23.7	24.9	26.3	27.9
ETSU-R-97 Derived Noise Limit	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
Predicted Turbine Noise Level	25.3	25.7	29.3	33.2	34.9	35.4	35.3	35.2	35.2	35.2
Margin Under Noise Limit#	-17.7	-17.3	-13.7	-9.8	-8.1	-7.6	-7.7	-7.8	-7.8	-7.8
R4 - Knockburnie										
Background Noise Level	24.5	24.6	24.7	24.9	25.1	25.5	25.9	26.3	26.9	27.5
ETSU-R-97 Derived Noise Limit	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0
Predicted Turbine Noise Level	24.7	25.1	28.7	32.7	34.4	34.9	34.8	34.8	34.8	34.8
Margin Under Noise Limit#	-20.3	-19.9	-16.3	-12.3	-10.6	-10.1	-10.2	-10.2	-10.2	-10.2
R5 – Dalleagles										
Background Noise Level	23.5	23.2	23.1	23.2	23.4	23.8	24.4	25.1	26.0	27.1
ETSU-R-97 Derived Noise Limit	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
Predicted Turbine Noise Level	24.4	24.8	28.5	32.4	34.0	34.5	34.4	34.4	34.4	34.4
Margin Under Noise Limit#	-18.6	-18.2	-14.5	-10.6	-9.0	-8.5	-8.6	-8.6	-8.6	-8.6
R6 – Dalleagles Terrace										
Background Noise Level	23.5	23.2	23.1	23.2	23.4	23.8	24.4	25.1	26.0	27.1
ETSU-R-97 Derived Noise Limit	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
Predicted Turbine Noise Level	24.0	24.3	28.0	31.8	33.3	33.8	33.7	33.8	33.8	33.8
Margin Under Noise Limit#	-19.0	-18.7	-15.0	-11.2	-9.7	-9.2	-9.3	-9.2	-9.2	-9.2
R7 - Brockloch										

Noise Parameters, $L_{A90, 10mins}$, dB	Standardised 10m Height Wind Speed (V_{10}) ms^{-1}									
	3	4	5	6	7	8	9	10	11	12
Background Noise Level	25.4	25.3	25.3	25.5	25.9	26.3	26.9	27.7	28.6	29.6
ETSU-R-97 Derived Noise Limit	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0
Predicted Turbine Noise Level	25.7	25.8	29.8	33.0	34.1	34.4	34.4	34.5	34.4	34.4
Margin Under Noise Limit#	-19.3	-19.2	-15.2	-12.0	-10.9	-10.6	-10.6	-10.5	-10.6	-10.6
R8 - Laglaff										
Background Noise Level	25.4	25.3	25.3	25.5	25.9	26.3	26.9	27.7	28.6	29.6
ETSU-R-97 Derived Noise Limit	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
Predicted Turbine Noise Level	26.3	26.5	30.6	33.5	34.5	34.8	34.8	34.8	34.8	34.8
Margin Under Noise Limit#	-16.7	-16.5	-12.4	-9.5	-8.5	-8.2	-8.2	-8.2	-8.2	-8.2