



Parc Ynni Calon y Gwynt

ENVIRONMENTAL STATEMENT

Appendix 11M: Noise Assessment Figures (Parc Ynni Calon y Gwynt in Isolation)





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Parc Ynni Calon y Gwynt

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Appendix 11M: Noise Assessment Figures (Parc Ynni Calon y Gwynt in Isolation)

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1 NOISE ASSESSMENT FIGURES

Table 11M.1: – Receptor Prediction Coordinates

Receptor Prediction Location	Address (if known)	Easting	Northing	Association with Wind Farm	Distance to nearest turbine (m)	Maximum Predicted Noise Level (dB L _{A90})
H1	Newhouse	301269	296692		1084	38.6
H2	Lluast-y-greolen	301010	296630		1201	37.1
H3	Llyn Mawr	301049	297366	Parc Ynni Calon y Gwynt	508	45.9
H4	Lakeside View	301127	297083		734	42.4
H6	Tŷ-uchaf	301711	299455		981	38.0
H7	Ty Hir	302502	300262		2111	30.4
H8	Ddol Gwyn Felin	302284	300681		2276	30.7
H9	Plas Helyg	302786	300477		2464	29.9
H10	n/a	302748	300527		2473	29.8
H11	n/a	303038	300593		2726	28.8
H12	n/a	303064	300608		2756	28.7
H13	Ty-newydd	303186	300663		2883	28.0
H14	Fron	303210	301201		3281	27.0
H15	Belan-ddu	303799	301340		3792	25.5
H16	Sychnant	302789	301375		3097	26.6
H17	n/a	301826	301242		2325	30.3
H18	Waen-y-fign	301788	301233		2294	30.4
H19	Rhyd-y-biswal	300923	301354		2014	31.2
H20	Fuches-gôch	301152	301175		1920	31.4
H21	Gwaun-y-maglau	301785	301964		2907	28.7
H22	Ty-Bach	302944	301949		3597	26.6
H23	Rhosydd-gwnion	303397	302049		3998	25.3



Receptor Prediction Location	Address (if known)	Easting	Northing	Association with Wind Farm	Distance to nearest turbine (m)	Maximum Predicted Noise Level (dB L _{A90})
H24	Cwm	302966	302428		3965	24.9
H25	Nant-wyllt	302579	302756		3995	23.7
H26	Ty-cerrig	302325	303048		4118	23.4
H27	n/a	302082	303198		4147	23.2
H28	Dôl-y-fardyn	301942	303236	Llyn Lort	4127	23.3
H29	Dolglyd	301639	303453	Llyn Lort	4230	23.0
H30	Plas Y Drain	301509	303551	Llyn Lort	4288	22.8
H35	n/a	297968	301538		3228	26.7
H36	Cwm	297857	301497		3272	26.6
H37	n/a	297427	301339		3345	26.6
H38	Ty-newydd	297653	301165		3077	27.0
H39	n/a	297554	301025		3013	27.2
H40	Croesdy	297449	300770		2871	27.5
H41	n/a	297443	300689		2813	27.7
H42	Rhyd	297507	300525		2647	28.3
H43	n/a	297434	300548		2713	28.0
H44	Llanerch	298217	300569		2281	30.2
H46	Cefn Brith	298097	300174		2005	31.1
H47	Blaen-y-Cwm	298469	298621	Parc Ynni Calon y Gwynt	792	39.7
H48	Hendre	297191	299706		2372	29.0
H49	Dôl-friog	296870	299377		2530	28.5
H50	n/a	296754	299280		2610	28.3
H51	Cwm-yr-annel	297723	299028		1610	32.6
H52	n/a	297131	298711		2133	30.1
H53	Pantyclesail	298901	297217	Parc Ynni Calon y Gwynt	740	39.7
H54	n/a	298971	297026		829	38.6



Receptor Prediction Location	Address (if known)	Easting	Northing	Association with Wind Farm	Distance to nearest turbine (m)	Maximum Predicted Noise Level (dB L _{A90})
H55	Cwm-gerwyn	298627	297185		984	37.6
H56	Fir Tree Lodge	299218	296794		928	37.1
H57	Parc-y-rhiw	299264	296777		933	37.1
H58	n/a	298700	296414		1489	33.7
H59	n/a	298538	296465		1538	33.5
H60	n/a	298304	296546		1633	33.0
H61	Pant-y-crasty	298097	296557		1780	32.4
H62	n/a	298035	296500		1864	31.9
H63	n/a	300034	296483		1306	36.5
H64	Cwm-clÿs	300099	296439		1338	36.3
H65	Gilfach-hîr	300269	296353		1406	35.5
H66	Coedcae	300739	296100		1711	33.6
H67	Wtrawen	300974	295857		1956	32.2
H68	Slate House	301173	296202		1582	34.7
H69	n/a	301144	296332		1458	35.5
H70	Bronffynnon	301501	296428		1346	34.9
H71	Wyddol	301527	296182		1593	34.0
H72	Tan y Bwlch	301443	296113		1657	33.9
H73	Cerrig y Brain	301429	296007		1763	33.5
H74	Gelli	302191	296489		1509	32.5
H75	Clogau	301625	296769		1027	37.1
H76	n/a	299500	296023		1663	33.1
H77	n/a	299266	295998		1700	32.9
H78	Pandy-bâch	299376	295807		1881	32.2
H79	Plasauduon	300217	295446		2314	31.1
H80	n/a	300492	295412		2353	30.9



Receptor Prediction Location	Address (if known)	Easting	Northing	Association with Wind Farm	Distance to nearest turbine (m)	Maximum Predicted Noise Level (dB L _{A90})
H81	Neuadd-newydd	300850	295314		2501	30.6
H82	Ty-Cerrig	305201	299136		4048	23.8
H83	Castell-uchaf	305152	299414		4106	23.7
H84	Castell-isaf	305345	299463		4302	23.3
H85	n/a	304711	300897		4264	23.4
H86	n/a	304966	300936		4505	23.9
H87	Ffrwd-wen	304298	297536		2917	26.6
H88	n/a	304296	297470		2921	26.3
H89	Tyn-y-celyn	303267	296320		2371	28.4
H90	n/a	303611	296019		2827	26.8
H91	n/a	303756	296099		2896	26.5
H92	n/a	303740	295986		2950	26.4
H93	n/a	303873	295857		3134	26.1
H94	Gwern-y-pwll	303087	295361		2946	26.3
H95	Goleugoed	303485	295392		3169	25.6
H96	n/a	303126	295195		3105	25.9
H97	Llwyn-gwyn	302579	295101		2921	26.7
H98	n/a	302588	295078		2946	26.6
H101	n/a	298444	296934		1274	35.4
H102	Tŷ-gwyn	298324	296979		1349	35.1

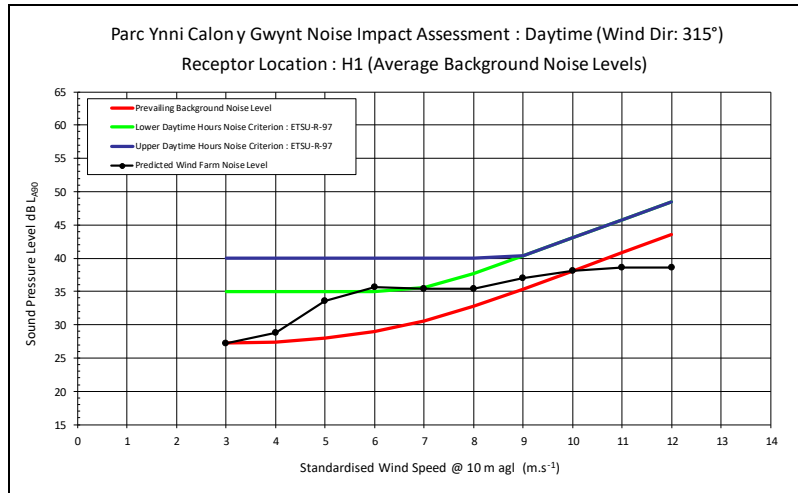


Plate 11M.1: Daytime Assessment at H1

Plates 11.M.1 – 11.M.2 detail the predicted L_{A90} noise levels for the receptor known as H1 during the daytime and night-time periods, for a downwind 315° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Upper Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.2 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.3 details the predicted compliance with the ETSU-R-97 noise criteria.

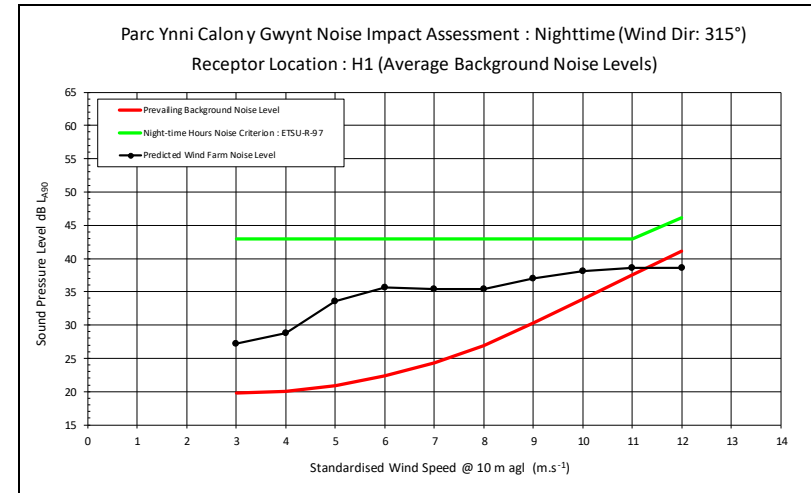


Plate 11M.2: Night-time Assessment at H1

Table 11M.2: Predicted Calon y Gwynt Noise Level – H1

Wind Direction	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	28.8	33.6	35.5	35.3	35.1	37.0	37.7	38.6	38.6
45°	28.1	32.9	35.5	35.4	35.3	36.8	37.2	37.9	37.9
90°	25.4	30.2	33.8	33.5	33.5	34.8	35.1	35.2	35.2
135°	23.4	28.2	32.5	32.8	32.4	33.0	33.2	33.2	33.2
180°	23.4	28.2	32.5	32.3	32.3	32.8	33.0	33.2	33.2
225°	26.5	31.3	35.2	34.8	34.8	35.6	35.7	36.3	36.3
270°	28.4	33.2	35.7	35.7	35.7	37.1	37.4	38.2	38.2
315°	28.8	33.6	35.7	35.4	35.4	37.1	38.1	38.6	38.6
Worst	28.8	33.6	35.7	35.7	35.7	37.1	38.1	38.6	38.6
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5



Table 11M.3: Predicted Compliance – H1

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	28.8	33.6	35.7	35.7	35.7	37.1	38.1	38.6	38.6
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-11.2	-6.4	-4.3	-4.3	-4.3	-3.3	-5.0	-7.2	-9.9
Predicted Compliance of Worst Direction – Night-time	-14.2	-9.4	-7.3	-7.3	-7.3	-5.9	-4.9	-4.4	-7.5

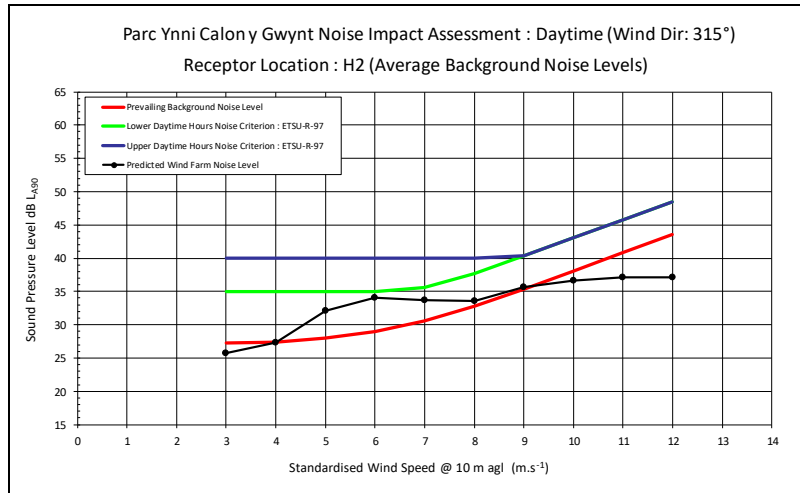


Plate 11M.3: Daytime Assessment at H2

Plates 11.M.3 – 11.M.4 detail the predicted L_{A90} noise levels for the receptor known as H2 during the daytime and night-time periods, for a downwind 315° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.4 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.5 details the predicted compliance with the ETSU-R-97 noise criteria.

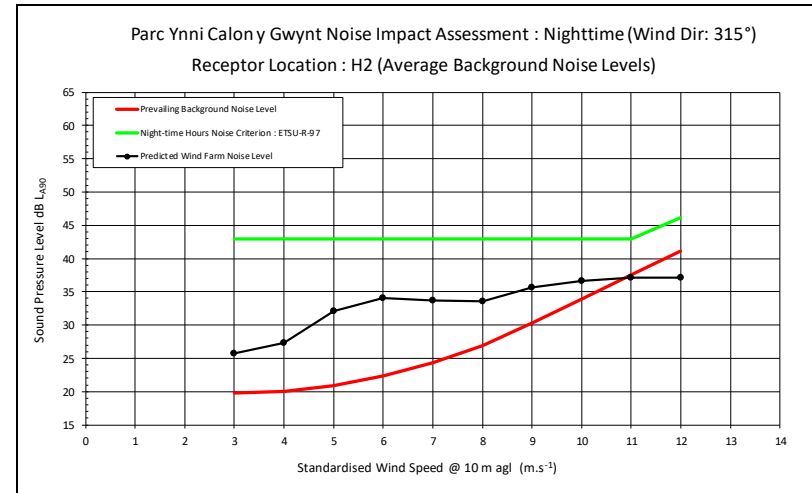


Plate 11M.4: Night-time Assessment at H2

Table 11M.4: Predicted Calon y Gwynt Noise Level – H2

Wind Direction	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	27.3	32.1	33.8	33.5	33.4	35.5	36.3	37.1	37.1
45°	27.1	31.9	34.9	34.6	34.4	36.1	36.4	36.9	36.9
90°	24.9	29.7	33.3	33.0	33.0	34.3	34.6	34.7	34.7
135°	22.2	27.0	31.3	31.7	31.3	31.9	32.0	32.0	32.0
180°	21.5	26.3	30.6	30.4	30.4	30.9	31.0	31.3	31.3
225°	24.5	29.3	33.3	33.0	33.0	33.7	33.8	34.3	34.3
270°	26.6	31.4	34.1	33.9	33.9	35.6	35.8	36.4	36.4
315°	27.3	32.1	34.1	33.7	33.6	35.6	36.6	37.1	37.1
Worst	27.3	32.1	34.9	34.6	34.4	36.1	36.6	37.1	37.1
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5



Table 11M.5: Predicted Compliance – H2

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	27.3	32.1	34.9	34.6	34.4	36.1	36.6	37.1	37.1
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-12.7	-7.9	-5.1	-5.4	-5.6	-4.3	-6.5	-8.7	-11.4
Predicted Compliance of Worst Direction – Night-time	-15.7	-10.9	-8.1	-8.4	-8.6	-6.9	-6.4	-5.9	-9.0

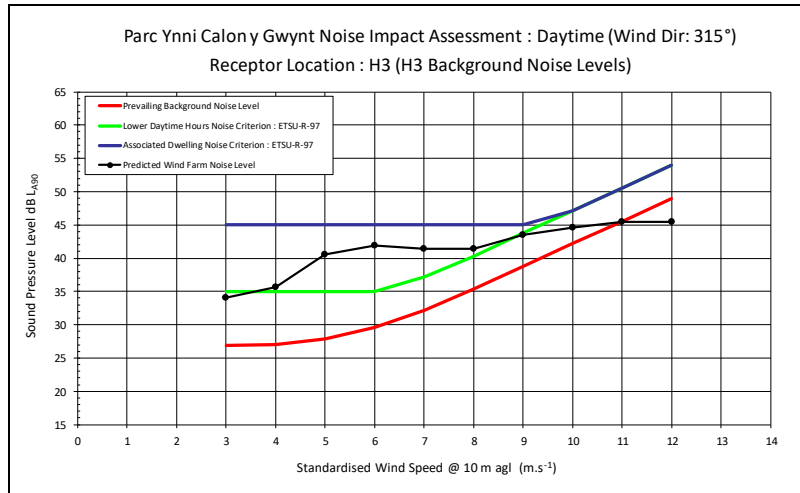


Plate 11M.5: Daytime Assessment at H3

Plates 11.M.5 – 11.M.6 detail the predicted L_{A90} noise levels for the receptor known as H3 during the daytime and night-time periods, for a downwind 315° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the noise criterion proposed by ETSU-R-97 for financially involved dwellings.

Table 11.M.6 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.7 details the predicted compliance with the ETSU-R-97 noise criteria.

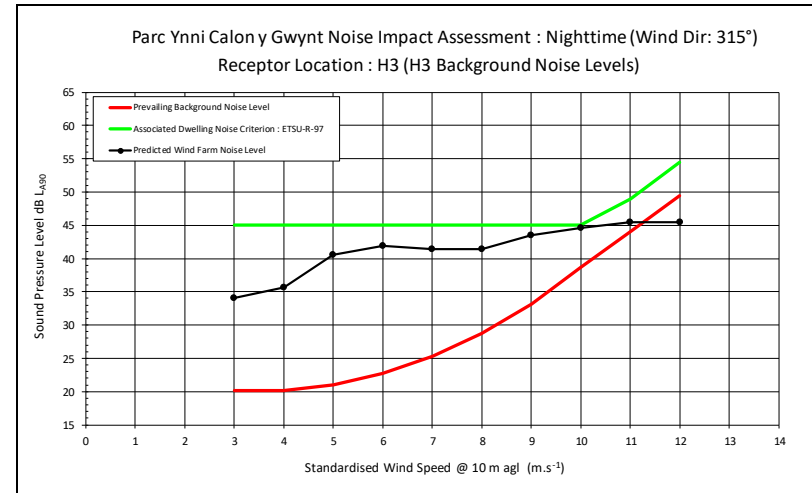


Plate 11M.6: Night-time Assessment at H3

Table 11M.6: Predicted Calon y Gwynt Noise Level – H3

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	36.1	40.9	41.8	41.5	41.5	43.7	44.7	45.9	45.9
45°	35.7	40.5	42.5	42.1	41.9	44.1	44.7	45.5	45.5
90°	35.0	39.8	43.4	42.9	42.9	44.3	44.7	44.8	44.8
135°	34.2	39.0	43.4	43.8	43.6	43.9	44.0	44.0	44.0
180°	35.1	39.9	44.3	43.9	43.9	44.4	44.5	44.9	44.9
225°	35.7	40.5	44.2	43.7	43.7	44.6	44.4	45.5	45.5
270°	36.1	40.9	42.5	42.2	42.2	44.2	44.7	45.9	45.9
315°	35.7	40.5	41.9	41.4	41.4	43.5	44.5	45.5	45.5
Worst	36.1	40.9	44.3	43.9	43.9	44.6	44.7	45.9	45.9
Limit	45.0	45.0	45.0	45.0	45.0	45.0	47.1	50.5	53.9



Table 11M.7: Predicted Compliance – H3

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	36.1	40.9	44.3	43.9	43.9	44.6	44.7	45.9	45.9
Financially Involved Daytime ETSU-R-97 Noise Criterion	45.0	45.0	45.0	45.0	45.0	45.0	47.1	50.5	53.9
Financially Involved Night-time ETSU-R-97 Noise Criterion	45.0	45.0	45.0	45.0	45.0	45.0	45.0	49.0	54.4
Predicted Compliance of Worst Direction – Daytime	-8.9	-4.1	-0.7	-1.1	-1.1	-0.4	-2.4	-4.6	-8.0
Predicted Compliance of Worst Direction – Night-time	-8.9	-4.1	-0.7	-1.1	-1.1	-0.4	-0.3	-3.1	-8.5

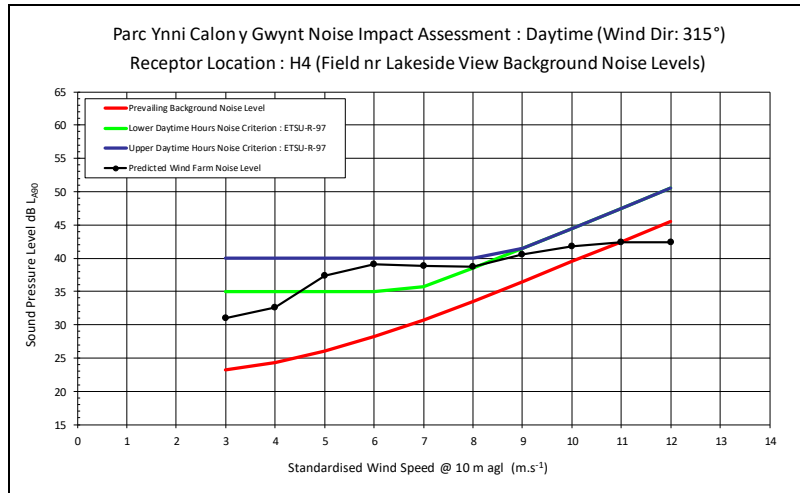


Plate 11M.7: Daytime Assessment at H4

Plates 11.M.7 – 11.M.8 detail the predicted L_{A90} noise levels for the receptor known as H4 during the daytime and night-time periods, for a downwind 315° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Upper Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.8 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.9 details the predicted compliance with the ETSU-R-97 noise criteria.

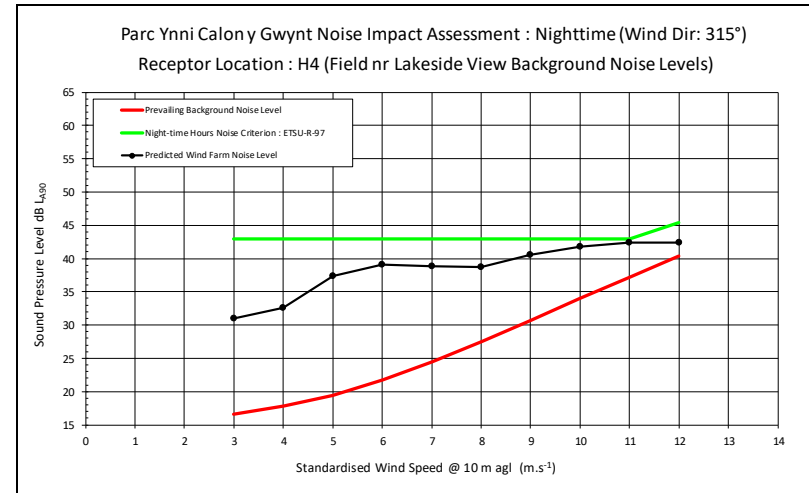


Plate 11M.8: Night-time Assessment at H4

Table 11M.8: Predicted Calon y Gwynt Noise Level – H4

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	32.6	37.4	38.9	38.6	38.5	40.4	41.3	42.4	42.4
45°	31.8	36.6	38.9	38.6	38.5	40.4	40.9	41.6	41.6
90°	30.8	35.6	39.0	38.6	38.6	40.2	40.5	40.6	40.6
135°	29.6	34.4	38.8	39.1	38.7	39.3	39.4	39.4	39.4
180°	29.7	34.5	38.8	38.4	38.4	39.0	39.1	39.5	39.5
225°	31.0	35.8	39.5	38.9	38.9	39.9	39.9	40.8	40.8
270°	32.3	37.1	39.2	39.1	39.1	40.7	41.1	42.1	42.1
315°	32.6	37.4	39.1	38.8	38.7	40.5	41.7	42.4	42.4
Worst	32.6	37.4	39.5	39.1	39.1	40.7	41.7	42.4	42.4
Upper Limit	40.0	40.0	40.0	40.0	40.0	41.4	44.5	47.5	50.5

Table 11M.9: Predicted Compliance – H4

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	32.6	37.4	39.5	39.1	39.1	40.7	41.7	42.4	42.4
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	41.4	44.5	47.5	50.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	45.3
Predicted Compliance of Worst Direction – Daytime	-7.4	-2.6	-0.5	-0.9	-0.9	-0.7	-2.8	-5.1	-8.1
Predicted Compliance of Worst Direction – Night-time	-10.4	-5.6	-3.5	-3.9	-3.9	-2.3	-1.3	-0.6	-2.9

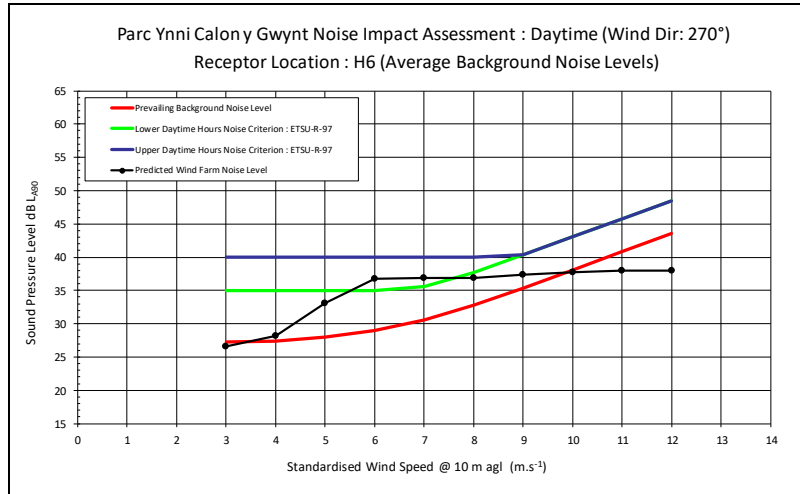


Plate 11M.9: Daytime Assessment at H6

Plates 11.M.9 – 11.M.10 detail the predicted L_{A90} noise levels for the receptor known as H6 during the daytime and night-time periods, for a downwind 270° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Upper Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.10 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.11 details the predicted compliance with the ETSU-R-97 noise criteria.

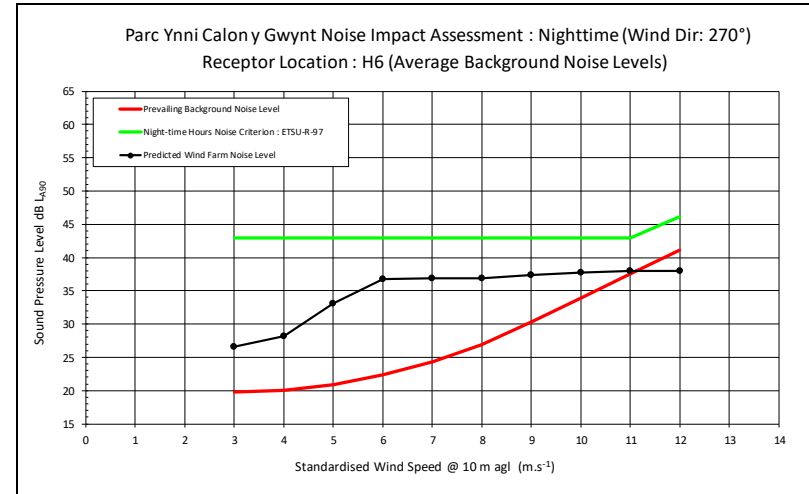


Plate 11M.10: Night-time Assessment at H6

Table 11M.10: Predicted Calon y Gwynt Noise Level – H6

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	24.8	29.6	33.3	33.0	33.0	34.4	34.5	34.6	34.6
45°	23.0	27.8	31.9	31.7	31.7	32.6	32.7	32.8	32.8
90°	24.2	29.0	33.0	33.3	33.3	33.8	33.9	34.0	34.0
135°	26.2	31.0	34.8	34.9	34.8	35.1	36.0	36.0	36.0
180°	28.0	32.8	36.5	35.1	35.1	36.0	37.7	37.8	37.8
225°	28.2	33.0	36.2	34.3	34.3	35.5	37.8	38.0	38.0
270°	28.2	33.0	36.8	36.9	36.9	37.3	37.7	38.0	38.0
315°	26.9	31.7	35.6	35.7	35.4	36.4	36.6	36.7	36.7
Worst	28.2	33.0	36.8	36.9	36.9	37.3	37.8	38.0	38.0
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5



Table 11M.11: Predicted Compliance – H6

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	28.2	33.0	36.8	36.9	36.9	37.3	37.8	38.0	38.0
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-11.8	-7.0	-3.2	-3.1	-3.1	-3.1	-5.3	-7.8	-10.5
Predicted Compliance of Worst Direction – Night-time	-14.8	-10.0	-6.2	-6.1	-6.1	-5.7	-5.2	-5.0	-8.1

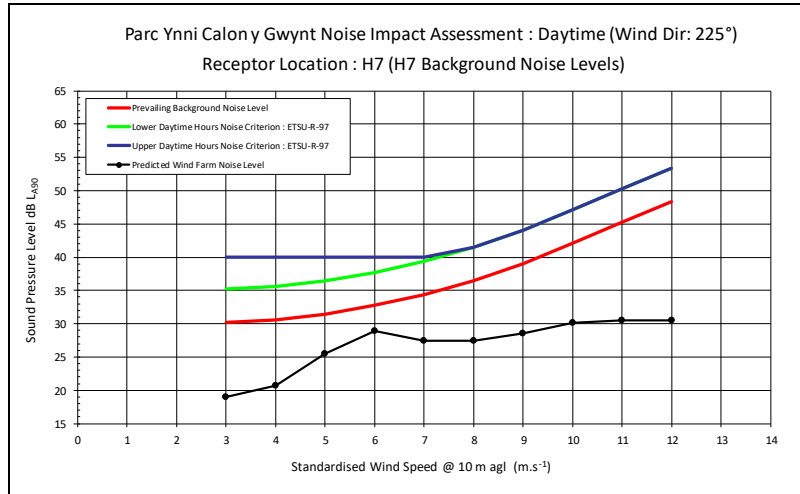


Plate 11M.11: Daytime Assessment at H7

Plates 11.M.11 – 11.M.12 detail the predicted L_{A90} noise levels for the receptor known as H7 during the daytime and night-time periods, for a downwind 225° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.12 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.13 details the predicted compliance with the ETSU-R-97 noise criteria.

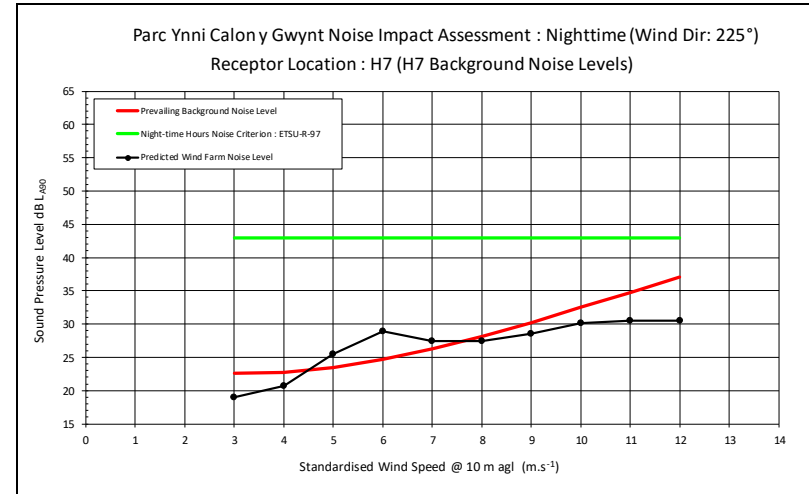


Plate 11M.12: Night-time Assessment at H7

Table 11M.12: Predicted Calon y Gwynt Noise Level – H7

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	15.5	20.3	23.8	23.8	23.8	24.8	25.0	25.3	25.3
45°	12.7	17.5	21.3	21.4	21.4	22.2	22.3	22.5	22.5
90°	14.6	19.4	23.3	23.3	23.3	24.1	24.4	24.4	24.4
135°	18.9	23.7	27.6	27.8	27.6	28.0	28.7	28.7	28.7
180°	20.6	25.4	29.0	28.4	28.4	29.2	30.3	30.4	30.4
225°	20.6	25.4	28.9	27.5	27.5	28.6	30.2	30.4	30.4
270°	20.6	25.4	29.0	29.0	29.0	29.6	30.1	30.4	30.4
315°	19.6	24.4	28.1	28.3	28.1	28.9	29.2	29.4	29.4
Worst	20.6	25.4	29.0	29.0	29.0	29.6	30.3	30.4	30.4
Upper Limit	40.0	40.0	40.0	40.0	41.5	44.0	47.1	50.2	53.4

Table 11M.13: Predicted Compliance – H7

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	20.6	25.4	29.0	29.0	29.0	29.6	30.3	30.4	30.4
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	41.5	44.0	47.1	50.2	53.4
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
Predicted Compliance of Worst Direction – Daytime	-19.4	-14.6	-11.0	-11.0	-12.5	-14.4	-16.8	-19.8	-23.0
Predicted Compliance of Worst Direction – Night-time	-22.4	-17.6	-14.0	-14.0	-14.0	-13.4	-12.7	-12.6	-12.6

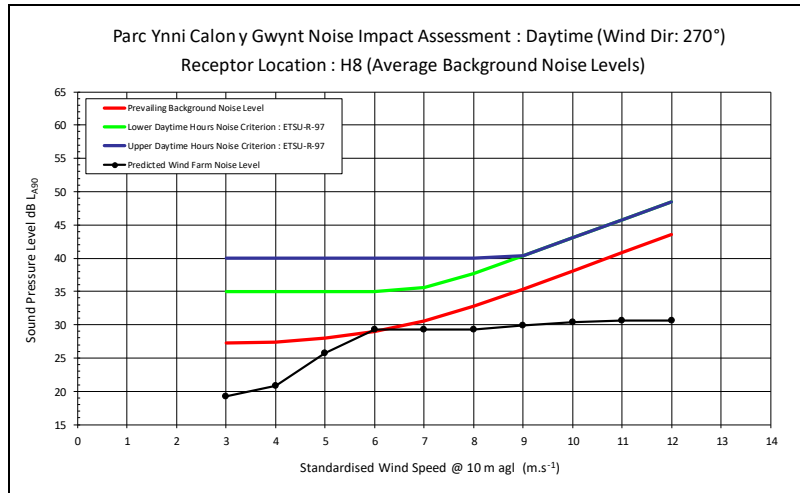


Plate 11M.13: Daytime Assessment at H8

Plates 11.M.13 – 11.M.14 detail the predicted L_{A90} noise levels for the receptor known as H8 during the daytime and night-time periods, for a downwind 270° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.14 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.15 details the predicted compliance with the ETSU-R-97 noise criteria.

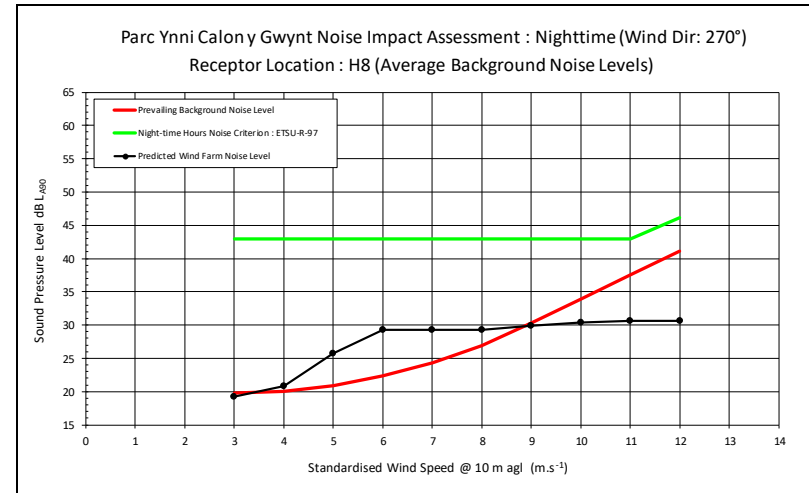


Plate 11M.14: Night-time Assessment at H8

Table 11M.14: Predicted Calon y Gwynt Noise Level – H8

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	14.9	19.7	23.2	23.2	23.2	24.3	24.4	24.7	24.7
45°	13.1	17.9	21.7	21.8	21.7	22.5	22.7	22.9	22.9
90°	15.7	20.5	24.4	24.4	24.4	25.1	25.4	25.5	25.5
135°	19.9	24.7	28.4	28.5	28.3	28.8	29.7	29.7	29.7
180°	20.9	25.7	29.2	28.7	28.7	29.5	30.6	30.7	30.7
225°	20.9	25.7	29.1	27.6	27.6	28.8	30.4	30.7	30.7
270°	20.9	25.7	29.3	29.3	29.3	29.8	30.4	30.7	30.7
315°	19.2	24.0	27.7	27.9	27.7	28.6	28.8	29.0	29.0
Worst	20.9	25.7	29.3	29.3	29.3	29.8	30.6	30.7	30.7
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5



Table 11M.15: Predicted Compliance – H8

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	20.9	25.7	29.3	29.3	29.3	29.8	30.6	30.7	30.7
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-19.1	-14.3	-10.7	-10.7	-10.7	-10.6	-12.5	-15.1	-17.8
Predicted Compliance of Worst Direction – Night-time	-22.1	-17.3	-13.7	-13.7	-13.7	-13.2	-12.4	-12.3	-15.4

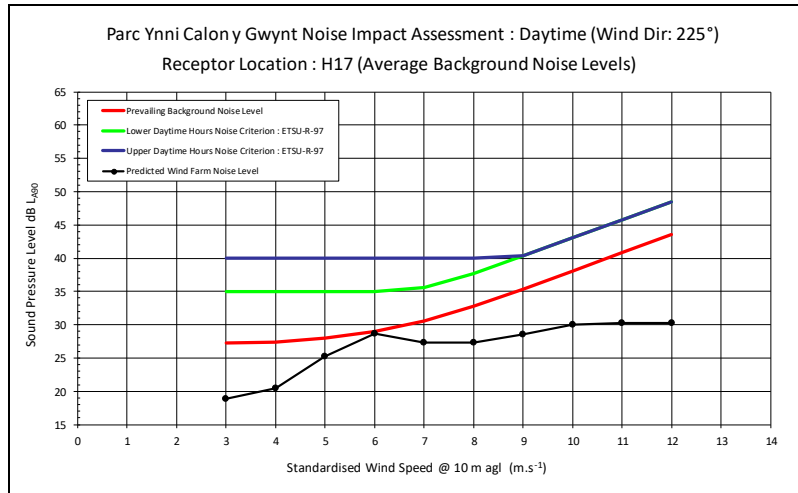


Plate 11M.15: Daytime Assessment at H17

Plates 11.M.15 – 11.M.16 detail the predicted L_{A90} noise levels for the receptor known as H17 during the daytime and night-time periods, for a downwind 225° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.16 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.17 details the predicted compliance with the ETSU-R-97 noise criteria.

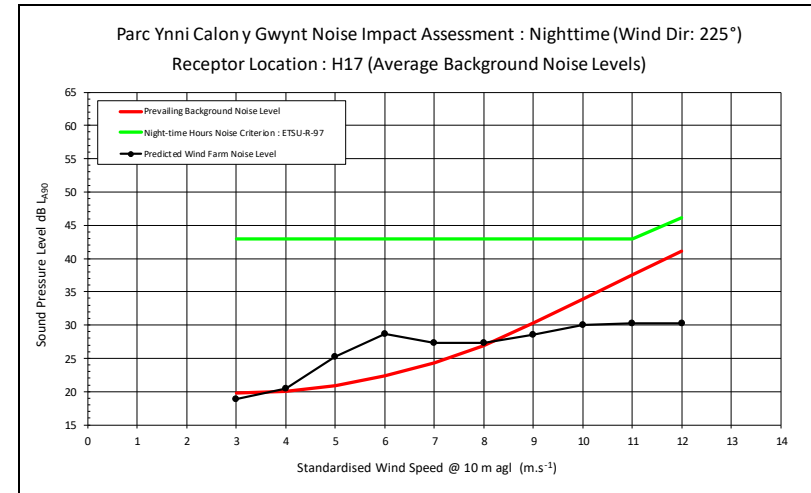


Plate 11M.16: Night-time Assessment at H17

Table 11M.16: Predicted Calon y Gwynt Noise Level – H17

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	13.6	18.4	21.8	21.9	21.8	22.8	23.1	23.4	23.4
45°	13.2	18.0	21.6	21.7	21.7	22.5	22.7	23.0	23.0
90°	16.7	21.5	25.4	25.4	25.4	26.1	26.5	26.5	26.5
135°	19.8	24.6	28.4	28.5	28.3	28.8	29.6	29.6	29.6
180°	20.5	25.3	28.8	28.4	28.4	29.2	30.2	30.3	30.3
225°	20.5	25.3	28.7	27.4	27.4	28.5	30.0	30.3	30.3
270°	20.3	25.1	28.8	28.7	28.7	29.2	29.8	30.1	30.1
315°	17.7	22.5	26.2	26.4	26.3	27.1	27.4	27.5	27.5
Worst	20.5	25.3	28.8	28.7	28.7	29.2	30.2	30.3	30.3
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5



Table 11M.17: Predicted Compliance – H17

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	20.5	25.3	28.8	28.7	28.7	29.2	30.2	30.3	30.3
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-19.5	-14.7	-11.2	-11.3	-11.3	-11.2	-12.9	-15.5	-18.2
Predicted Compliance of Worst Direction – Night-time	-22.5	-17.7	-14.2	-14.3	-14.3	-13.8	-12.8	-12.7	-15.8

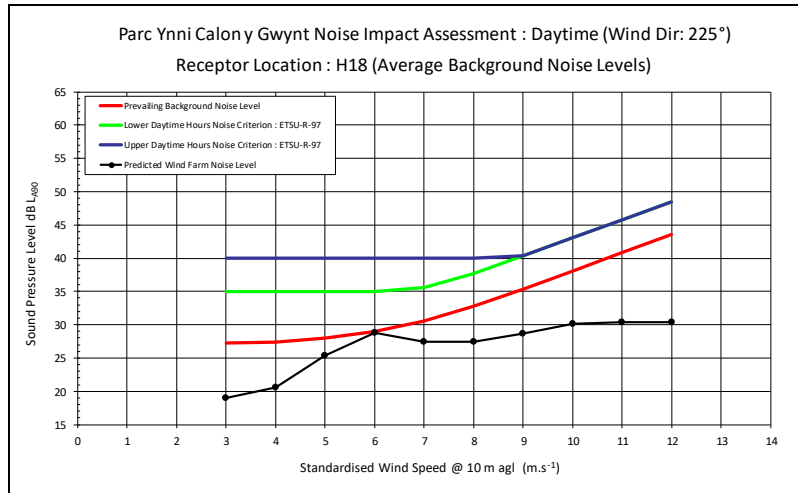


Plate 11M.17: Daytime Assessment at H18

Plates 11.M.17 – 11.M.18 detail the predicted L_{A90} noise levels for the receptor known as H18 during the daytime and night-time periods, for a downwind 225° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.18 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.19 details the predicted compliance with the ETSU-R-97 noise criteria.

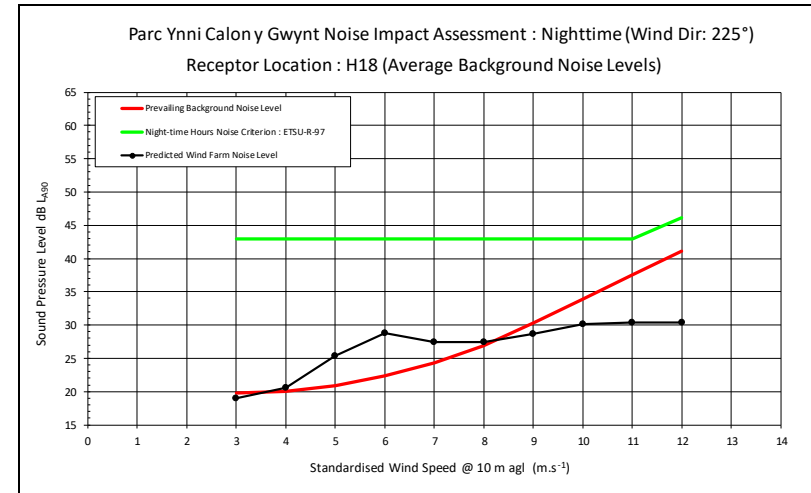


Plate 11M.18: Night-time Assessment at H18

Table 11M.18: Predicted Calon y Gwynt Noise Level – H18

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	13.7	18.5	21.9	21.9	21.9	22.9	23.2	23.5	23.5
45°	13.3	18.1	21.7	21.8	21.8	22.6	22.8	23.1	23.1
90°	16.8	21.6	25.5	25.5	25.5	26.3	26.6	26.6	26.6
135°	19.9	24.7	28.5	28.6	28.4	28.9	29.7	29.7	29.7
180°	20.6	25.4	28.9	28.5	28.5	29.3	30.3	30.4	30.4
225°	20.6	25.4	28.8	27.5	27.5	28.7	30.1	30.4	30.4
270°	20.4	25.2	28.9	28.8	28.8	29.3	29.9	30.2	30.2
315°	17.8	22.6	26.3	26.5	26.4	27.2	27.5	27.6	27.6
Worst	20.6	25.4	28.9	28.8	28.8	29.3	30.3	30.4	30.4
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5



Table 11M.19: Predicted Compliance – H18

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	20.6	25.4	28.9	28.8	28.8	29.3	30.3	30.4	30.4
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-19.4	-14.6	-11.1	-11.2	-11.2	-11.1	-12.8	-15.4	-18.1
Predicted Compliance of Worst Direction – Night-time	-22.4	-17.6	-14.1	-14.2	-14.2	-13.7	-12.7	-12.6	-15.7

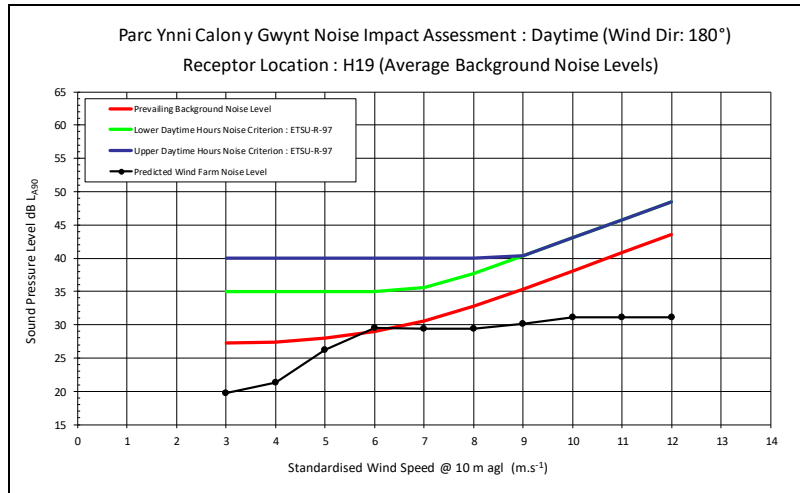


Plate 11M.19: Daytime Assessment at H19

Plates 11.M.19 – 11.M.20 detail the predicted L_{A90} noise levels for the receptor known as H19 during the daytime and night-time periods, for a downwind 180° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.20 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.21 details the predicted compliance with the ETSU-R-97 noise criteria.

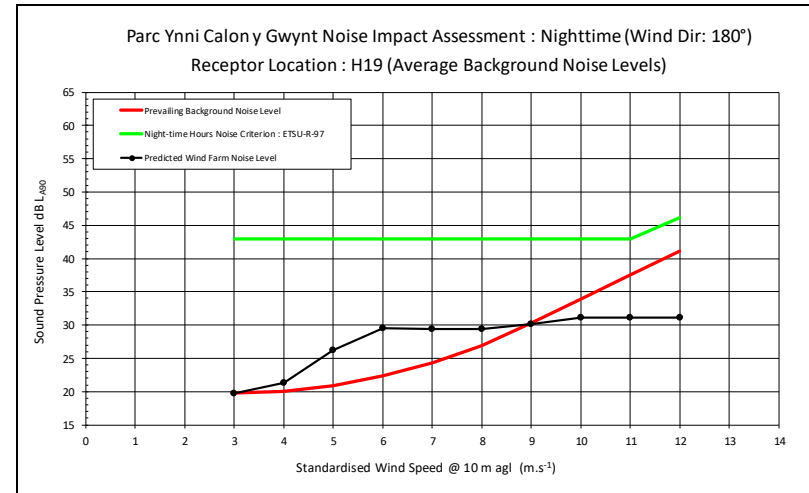


Plate 11M.20: Night-time Assessment at H19

Table 11M.20: Predicted Calon y Gwynt Noise Level – H19

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	13.7	18.5	22.0	22.0	22.0	22.9	23.2	23.5	23.5
45°	14.7	19.5	23.3	23.4	23.4	24.1	24.3	24.5	24.5
90°	18.9	23.7	27.7	27.7	27.7	28.3	28.7	28.7	28.7
135°	21.4	26.2	29.8	29.6	29.5	30.1	31.2	31.2	31.2
180°	21.4	26.2	29.5	29.3	29.3	30.2	31.1	31.2	31.2
225°	21.4	26.2	29.6	28.3	28.3	29.5	31.0	31.2	31.2
270°	20.8	25.6	29.5	29.4	29.4	29.8	30.4	30.6	30.6
315°	16.9	21.7	25.5	25.8	25.8	26.4	26.6	26.7	26.7
Worst	21.4	26.2	29.8	29.6	29.5	30.2	31.2	31.2	31.2
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5



Table 11M.21: Predicted Compliance – H19

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	21.4	26.2	29.8	29.6	29.5	30.2	31.2	31.2	31.2
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-18.6	-13.8	-10.2	-10.4	-10.5	-10.2	-11.9	-14.6	-17.3
Predicted Compliance of Worst Direction – Night-time	-21.6	-16.8	-13.2	-13.4	-13.5	-12.8	-11.8	-11.8	-14.9

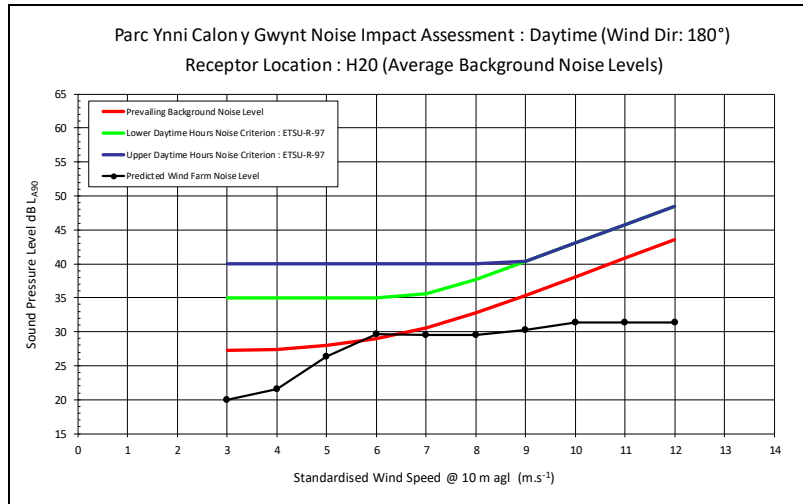


Plate 11M.21: Daytime Assessment at H20

Plates 11.M.21 – 11.M.22 detail the predicted L_{A90} noise levels for the receptor known as H20 during the daytime and night-time periods, for a downwind 180° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.22 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.23 details the predicted compliance with the ETSU-R-97 noise criteria.

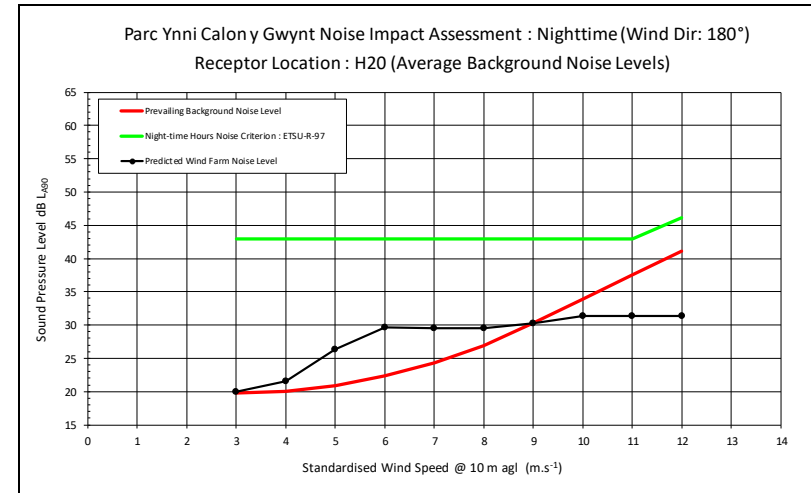


Plate 11M.22: Night-time Assessment at H20

Table 11M.22: Predicted Calon y Gwynt Noise Level – H20

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	14.0	18.8	22.4	22.4	22.4	23.4	23.5	23.8	23.8
45°	14.4	19.2	23.2	23.3	23.2	23.9	24.0	24.2	24.2
90°	18.5	23.3	27.4	27.5	27.5	28.0	28.3	28.3	28.3
135°	21.5	26.3	29.9	29.7	29.7	30.2	31.3	31.3	31.3
180°	21.6	26.4	29.6	29.5	29.5	30.3	31.3	31.4	31.4
225°	21.6	26.4	29.8	28.3	28.3	29.6	31.2	31.4	31.4
270°	21.2	26.0	29.9	29.7	29.7	30.1	30.8	31.0	31.0
315°	17.8	22.6	26.5	26.8	26.7	27.3	27.5	27.6	27.6
Worst	21.6	26.4	29.9	29.7	29.7	30.3	31.3	31.4	31.4
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5



Table 11M.23: Predicted Compliance – H20

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	21.6	26.4	29.9	29.7	29.7	30.3	31.3	31.4	31.4
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-18.4	-13.6	-10.1	-10.3	-10.3	-10.1	-11.8	-14.4	-17.1
Predicted Compliance of Worst Direction – Night-time	-21.4	-16.6	-13.1	-13.3	-13.3	-12.7	-11.7	-11.6	-14.7

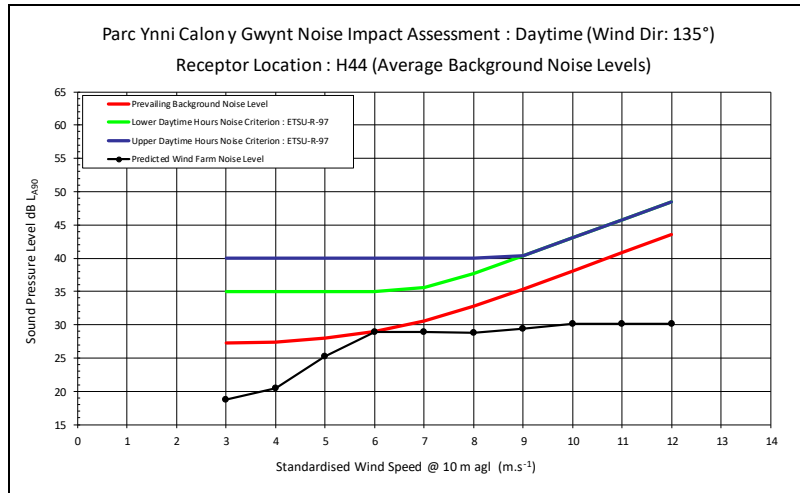


Plate 11M.23: Daytime Assessment at H44

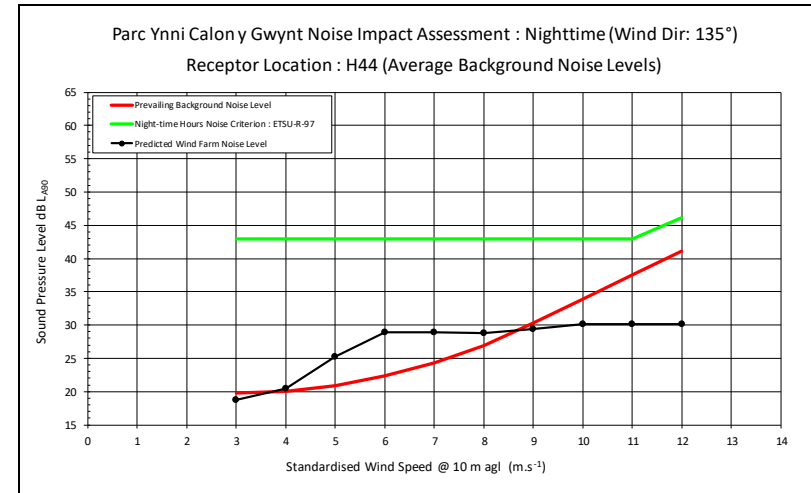


Plate 11M.24: Night-time Assessment at H44

Plates 11.M.23 – 11.M.24 the predicted L_{A90} noise levels for the receptor known as H44 during the daytime and night-time periods, for a downwind 135° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.24 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.25 details the predicted compliance with the ETSU-R-97 noise criteria.

Table 11M.24: Predicted Calon y Gwynt Noise Level – H44

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	14.4	19.2	23.0	23.1	23.1	23.9	24.0	24.2	24.2
45°	18.6	23.4	27.6	27.9	27.9	28.3	28.3	28.4	28.4
90°	20.4	25.2	29.0	29.0	29.0	29.4	30.2	30.2	30.2
135°	20.4	25.2	28.9	28.8	28.8	29.3	30.2	30.2	30.2
180°	20.4	25.2	28.8	28.8	28.8	29.3	30.1	30.2	30.2
225°	19.1	23.9	28.0	27.7	27.7	28.3	28.9	28.9	28.9
270°	15.2	20.0	24.0	24.3	24.3	24.7	24.9	25.0	25.0
315°	12.5	17.3	21.2	21.4	21.4	22.1	22.2	22.3	22.3
Worst	20.4	25.2	29.0	29.0	29.0	29.4	30.2	30.2	30.2
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5

Table 11M.25: Predicted Compliance – H44

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	20.4	25.2	29.0	29.0	29.0	29.4	30.2	30.2	30.2
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-19.6	-14.8	-11.0	-11.0	-11.0	-11.0	-12.9	-15.6	-18.3
Predicted Compliance of Worst Direction – Night-time	-22.6	-17.8	-14.0	-14.0	-14.0	-13.6	-12.8	-12.8	-15.9

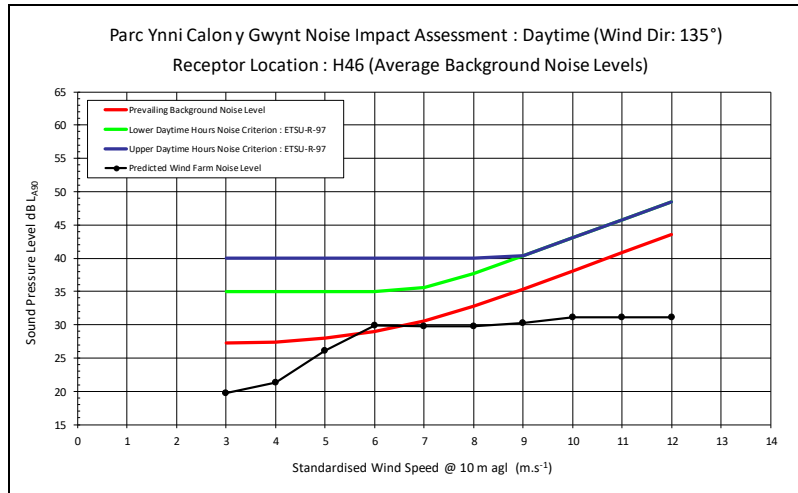


Plate 11M.25: Daytime Assessment at H46

Plates 11.M.25 – 11.M.26 detail the predicted L_{A90} noise levels for the receptor known as H46 during the daytime and night-time periods, for a downwind 135° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.26 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.27 details the predicted compliance with the ETSU-R-97 noise criteria.

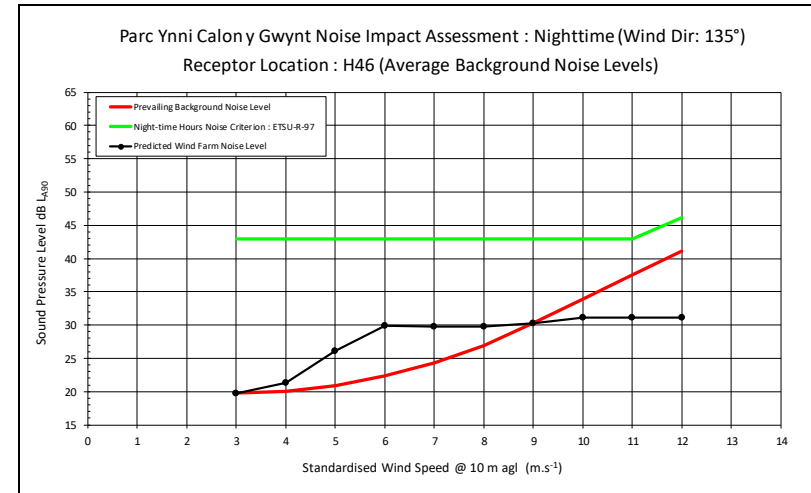


Plate 11M.26: Night-time Assessment at H46

Table 11M.26: Predicted Calon y Gwynt Noise Level – H46

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	15.9	20.7	24.6	24.7	24.7	25.5	25.6	25.7	25.7
45°	19.9	24.7	28.9	29.3	29.3	29.6	29.6	29.7	29.7
90°	21.3	26.1	29.9	29.9	29.9	30.3	31.1	31.1	31.1
135°	21.3	26.1	29.9	29.8	29.8	30.3	31.1	31.1	31.1
180°	21.3	26.1	29.8	29.8	29.8	30.3	31.1	31.1	31.1
225°	19.6	24.4	28.5	28.2	28.2	28.8	29.3	29.4	29.4
270°	15.4	20.2	24.3	24.6	24.6	25.0	25.1	25.2	25.2
315°	13.4	18.2	22.0	22.3	22.2	22.9	23.0	23.2	23.2
Worst	21.3	26.1	29.9	29.9	29.9	30.3	31.1	31.1	31.1
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5



Table 11M.27: Predicted Compliance – H46

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	21.3	26.1	29.9	29.9	29.9	30.3	31.1	31.1	31.1
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-18.7	-13.9	-10.1	-10.1	-10.1	-10.1	-12.0	-14.7	-17.4
Predicted Compliance of Worst Direction – Night-time	-21.7	-16.9	-13.1	-13.1	-13.1	-12.7	-11.9	-11.9	-15.0

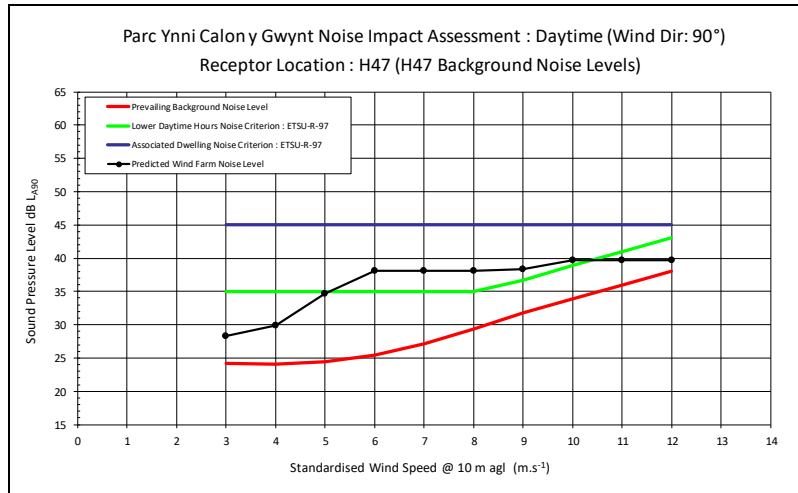


Plate 11M.27: Daytime Assessment at H47

Plates 11.M.27 – 11.M.28 detail the predicted L_{A90} noise levels for the receptor known as H47 during the daytime and night-time periods, for a downwind 90° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the noise criterion proposed by ETSU-R-97 for financially involved dwellings.

Table 11.M.28 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.29 details the predicted compliance with the ETSU-R-97 noise criteria.

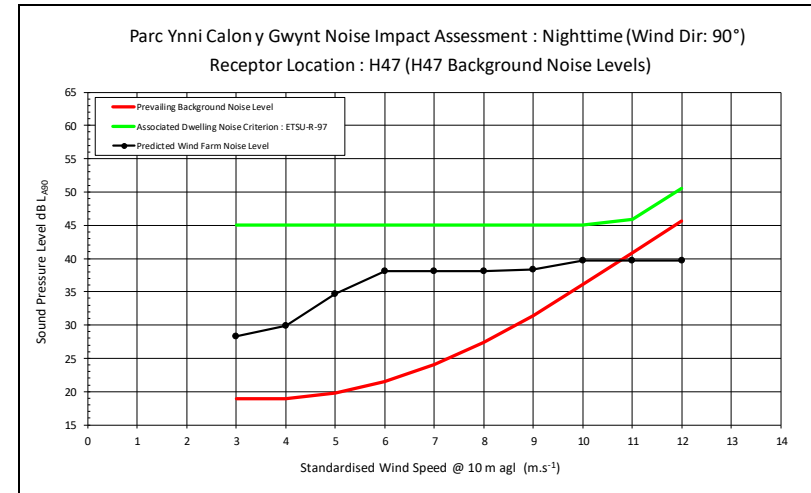


Plate 11M.28: Night-time Assessment at H47

Table 11M.28: Predicted Calon y Gwynt Noise Level – H47

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	27.7	32.5	36.6	37.0	37.0	37.3	37.4	37.5	37.5
45°	29.8	34.6	38.9	39.3	39.3	39.5	39.5	39.6	39.6
90°	29.9	34.7	38.0	38.1	38.1	38.3	39.7	39.7	39.7
135°	29.9	34.7	38.4	38.3	38.3	38.8	39.7	39.7	39.7
180°	28.8	33.6	37.5	37.7	37.7	37.8	38.6	38.6	38.6
225°	27.5	32.3	36.6	37.0	37.0	37.2	37.2	37.3	37.3
270°	25.6	30.4	34.7	35.2	35.2	35.3	35.3	35.4	35.4
315°	26.0	30.8	35.1	35.6	35.6	35.8	35.8	35.8	35.8
Worst	29.9	34.7	38.9	39.3	39.3	39.5	39.7	39.7	39.7
Limit	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0

Table 11M.29: Predicted Compliance – H47

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	29.9	34.7	38.9	39.3	39.3	39.5	39.7	39.7	39.7
Financially Involved Daytime ETSU-R-97 Noise Criterion	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0
Financially Involved Night-time ETSU-R-97 Noise Criterion	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.9	50.6
Predicted Compliance of Worst Direction – Daytime	-15.1	-10.3	-6.1	-5.7	-5.7	-5.5	-5.3	-5.3	-5.3
Predicted Compliance of Worst Direction – Night-time	-15.1	-10.3	-6.1	-5.7	-5.7	-5.5	-5.3	-6.2	-10.9

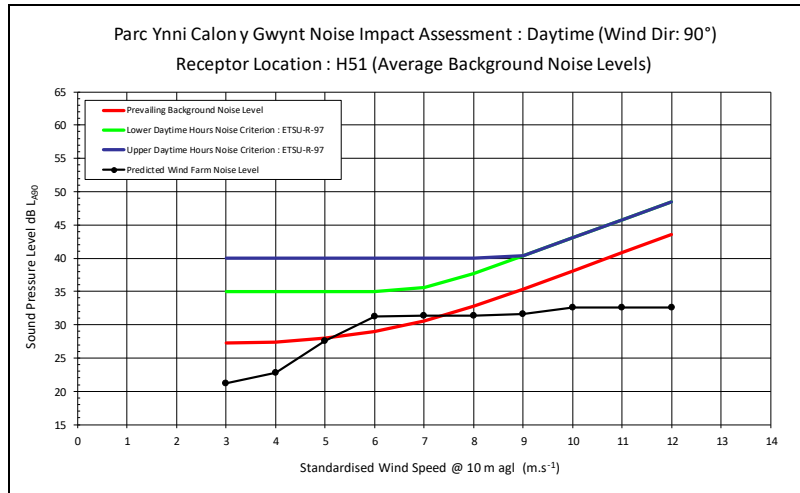


Plate 11M.29: Daytime Assessment at H51

Plates 11.M.29 – 11.M.30 detail the predicted L_{A90} noise levels for the receptor known as H51 during the daytime and night-time periods, for a downwind 90° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.30 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.31 details the predicted compliance with the ETSU-R-97 noise criteria.

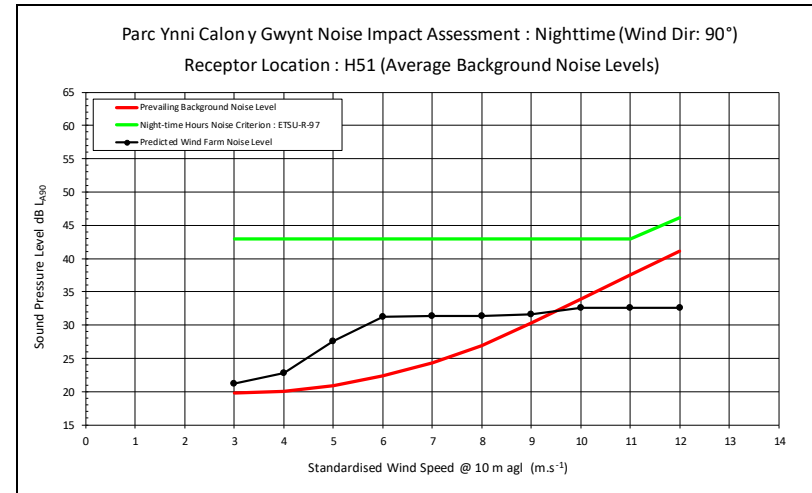


Plate 11M.30: Night-time Assessment at H51

Table 11M.30: Predicted Calon y Gwynt Noise Level – H51

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	19.6	24.4	28.3	28.5	28.5	29.2	29.3	29.4	29.4
45°	22.6	27.4	31.6	32.0	32.0	32.3	32.3	32.4	32.4
90°	22.8	27.6	31.2	31.3	31.3	31.6	32.6	32.6	32.6
135°	22.8	27.6	31.4	31.4	31.4	31.8	32.6	32.6	32.6
180°	22.3	27.1	30.9	31.1	31.1	31.3	32.1	32.1	32.1
225°	19.0	23.8	28.0	28.1	28.1	28.5	28.7	28.8	28.8
270°	14.9	19.7	23.7	24.0	24.0	24.4	24.6	24.7	24.7
315°	15.4	20.2	24.1	24.4	24.3	24.9	25.1	25.2	25.2
Worst	22.8	27.6	31.6	32.0	32.0	32.3	32.6	32.6	32.6
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5

Table 11M.31: Predicted Compliance – H51

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	22.8	27.6	31.6	32.0	32.0	32.3	32.6	32.6	32.6
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-17.2	-12.4	-8.4	-8.0	-8.0	-8.1	-10.5	-13.2	-15.9
Predicted Compliance of Worst Direction – Night-time	-20.2	-15.4	-11.4	-11.0	-11.0	-10.7	-10.4	-10.4	-13.5

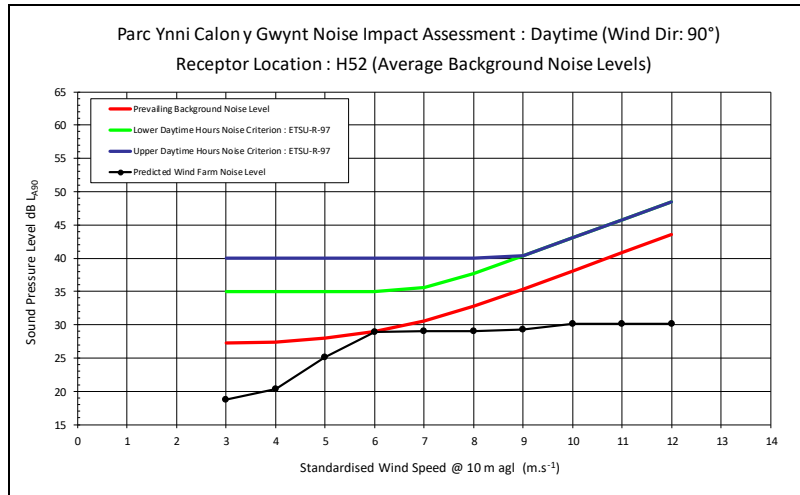


Plate 11M.31: Daytime Assessment at H52

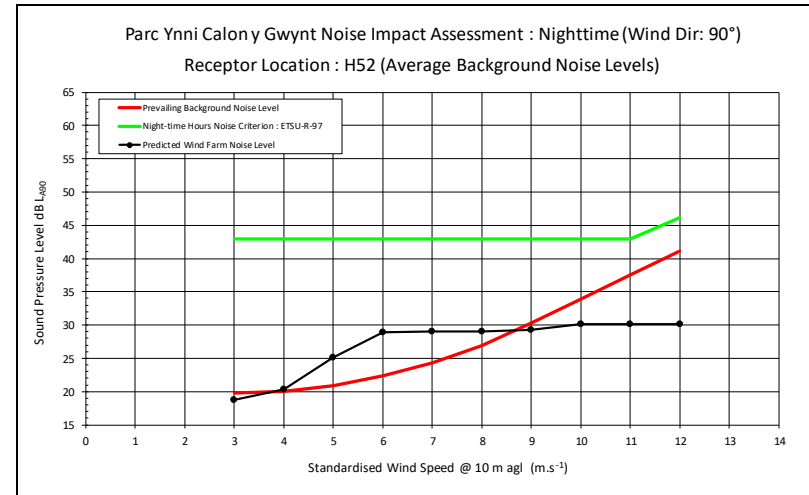


Plate 11M.32: Night-time Assessment at H52

Plates 11.M.31 – 11.M.32 detail the predicted L_{A90} noise levels for the receptor known as H52 during the daytime and night-time periods, for a downwind 90° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.32 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.33 details the predicted compliance with the ETSU-R-97 noise criteria.

Table 11M.32: Predicted Calon y Gwynt Noise Level – H52

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	18.2	23.0	26.8	27.0	26.9	27.7	27.9	28.0	28.0
45°	20.3	25.1	29.3	29.7	29.6	30.0	30.0	30.1	30.1
90°	20.3	25.1	28.8	29.0	29.0	29.2	30.1	30.1	30.1
135°	20.3	25.1	29.0	29.1	29.1	29.4	30.1	30.1	30.1
180°	19.4	24.2	28.2	28.4	28.4	28.7	29.2	29.2	29.2
225°	15.4	20.2	24.4	24.4	24.4	24.8	25.1	25.2	25.2
270°	12.4	17.2	21.1	21.4	21.4	21.9	22.1	22.2	22.2
315°	13.8	18.6	22.5	22.7	22.7	23.3	23.5	23.6	23.6
Worst	20.3	25.1	29.3	29.7	29.6	30.0	30.1	30.1	30.1
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5

Table 11M.33: Predicted Compliance – H52

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	20.3	25.1	29.3	29.7	29.6	30.0	30.1	30.1	30.1
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-19.7	-14.9	-10.7	-10.3	-10.4	-10.4	-13.0	-15.7	-18.4
Predicted Compliance of Worst Direction – Night-time	-22.7	-17.9	-13.7	-13.3	-13.4	-13.0	-12.9	-12.9	-16.0

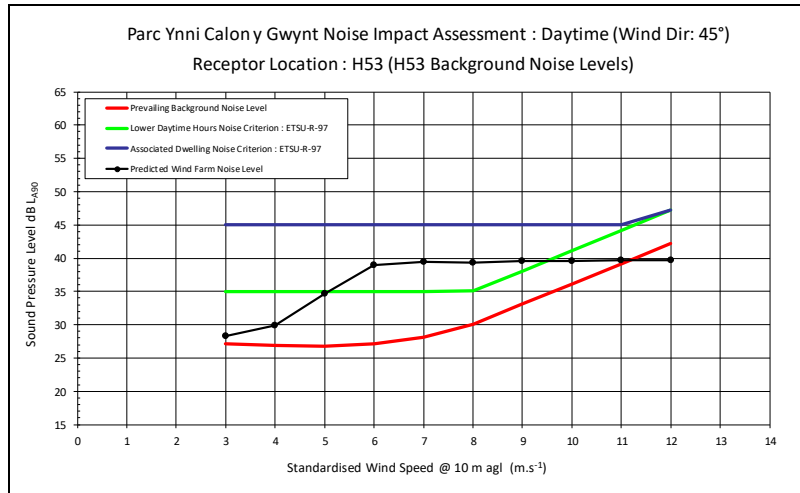


Plate 11M.33: Daytime Assessment at H53

Plates 11.M.33 – 11.M.34 detail the predicted L_{A90} noise levels for the receptor known as H53 during the daytime and night-time periods, for a downwind 45° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the noise criterion proposed by ETSU-R-97 for financially involved dwellings.

Table 11.M.34 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.35 details the predicted compliance with the ETSU-R-97 noise criteria.

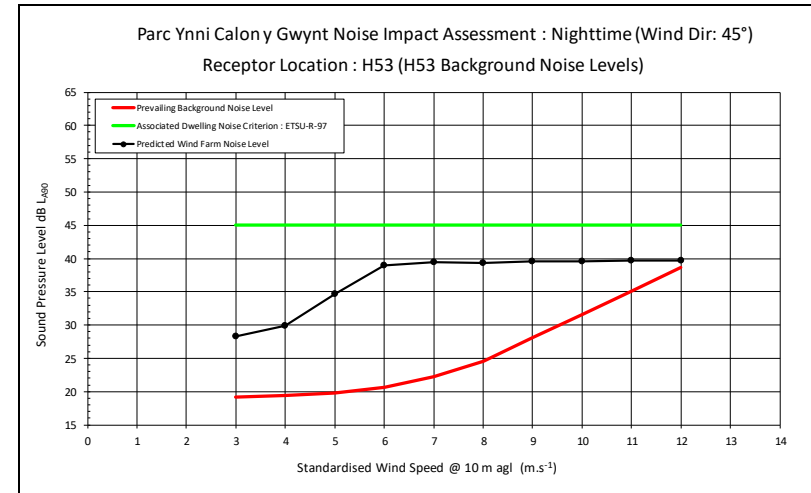


Plate 11M.34: Night-time Assessment at H53

Table 11M.34: Predicted Calon y Gwynt Noise Level – H53

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	29.9	34.7	38.6	38.5	38.1	39.5	39.6	39.7	39.7
45°	29.9	34.7	39.0	39.4	39.3	39.6	39.6	39.7	39.7
90°	29.9	34.7	38.8	39.2	39.2	39.3	39.7	39.7	39.7
135°	28.2	33.0	37.3	37.8	37.8	37.9	38.0	38.0	38.0
180°	27.5	32.3	36.7	37.2	37.2	37.2	37.3	37.3	37.3
225°	26.8	31.6	36.0	36.5	36.5	36.6	36.6	36.6	36.6
270°	27.7	32.5	36.9	37.4	37.4	37.5	37.5	37.5	37.5
315°	28.6	33.4	37.6	37.6	37.6	38.3	38.4	38.4	38.4
Worst	29.9	34.7	39.0	39.4	39.3	39.6	39.7	39.7	39.7
Limit	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	47.2

Table 11M.35: Predicted Compliance – H53

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	29.9	34.7	39.0	39.4	39.3	39.6	39.7	39.7	39.7
Financially Involved Daytime ETSU-R-97 Noise Criterion	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	47.2
Financially Involved Night-time ETSU-R-97 Noise Criterion	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0
Predicted Compliance of Worst Direction – Daytime	-15.1	-10.3	-6.0	-5.6	-5.7	-5.4	-5.3	-5.3	-7.5
Predicted Compliance of Worst Direction – Night-time	-15.1	-10.3	-6.0	-5.6	-5.7	-5.4	-5.3	-5.3	-5.3

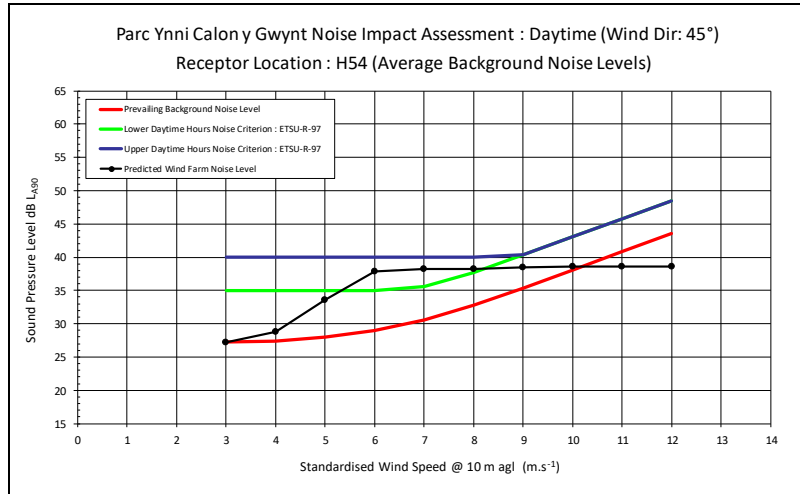


Plate 11M.35: Daytime Assessment at H54

Plates 11.M.35 – 11.M.36 detail the predicted L_{A90} noise levels for the receptor known as H54 during the daytime and night-time periods, for a downwind 45° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Upper Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.36 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.37 details the predicted compliance with the ETSU-R-97 noise criteria.

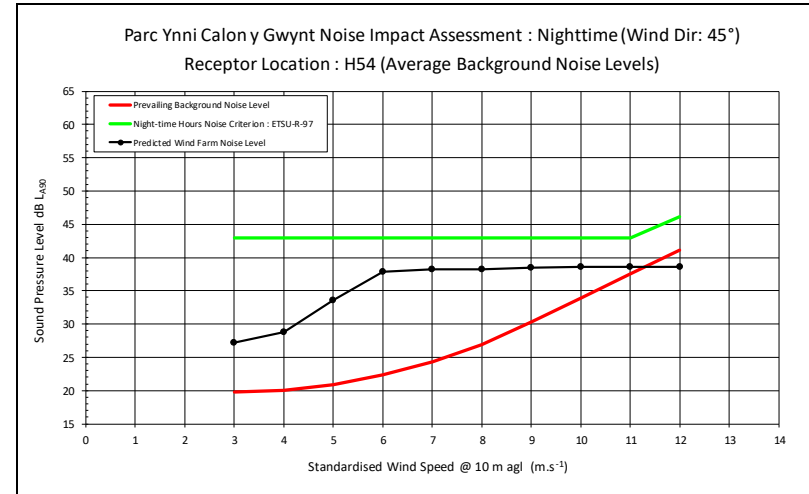


Plate 11M.36: Night-time Assessment at H54

Table 11M.36: Predicted Calon y Gwynt Noise Level – H54

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	28.8	33.6	37.5	37.3	36.9	38.4	38.5	38.6	38.6
45°	28.8	33.6	37.9	38.3	38.2	38.5	38.5	38.6	38.6
90°	28.8	33.6	37.8	38.1	38.1	38.2	38.6	38.6	38.6
135°	26.9	31.7	36.0	36.5	36.5	36.6	36.7	36.7	36.7
180°	25.5	30.3	34.7	35.1	35.1	35.2	35.3	35.3	35.3
225°	24.9	29.7	34.0	34.5	34.5	34.6	34.6	34.7	34.7
270°	26.5	31.3	35.5	36.1	36.1	36.2	36.2	36.3	36.3
315°	27.5	32.3	36.4	36.4	36.3	37.2	37.3	37.3	37.3
Worst	28.8	33.6	37.9	38.3	38.2	38.5	38.6	38.6	38.6
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5

Table 11M.37: Predicted Compliance – H54

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	28.8	33.6	37.9	38.3	38.2	38.5	38.6	38.6	38.6
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-11.2	-6.4	-2.1	-1.7	-1.8	-1.9	-4.5	-7.2	-9.9
Predicted Compliance of Worst Direction – Night-time	-14.2	-9.4	-5.1	-4.7	-4.8	-4.5	-4.4	-4.4	-7.5

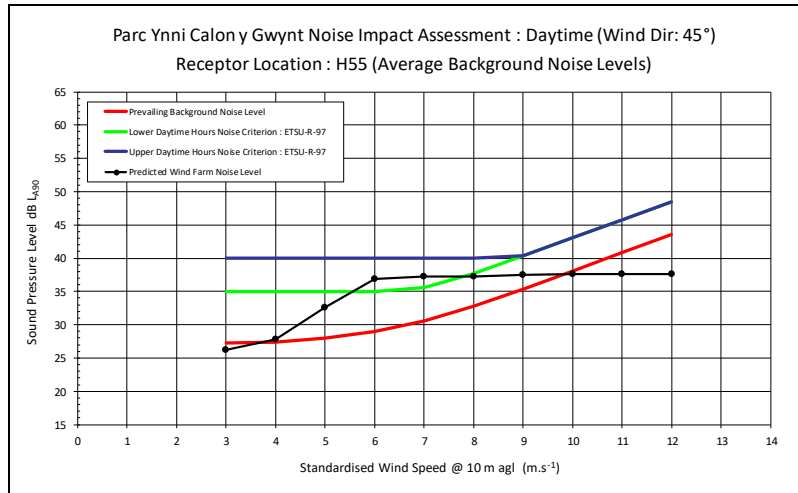


Plate 11M.37: Daytime Assessment at H55

Plates 11.M.37 – 11.M.38 detail the predicted L_{A90} noise levels for the receptor known as H55 during the daytime and night-time periods, for a downwind 45° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Upper Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.38 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.39 details the predicted compliance with the ETSU-R-97 noise criteria.

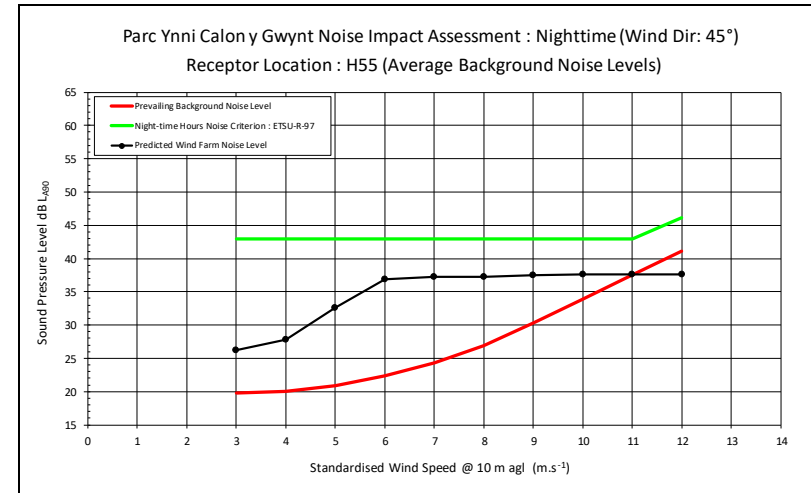


Plate 11M.38: Night-time Assessment at H55

Table 11M.38: Predicted Calon y Gwynt Noise Level – H55

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	27.8	32.6	36.6	36.5	36.2	37.4	37.5	37.6	37.6
45°	27.8	32.6	36.9	37.3	37.3	37.5	37.6	37.6	37.6
90°	27.8	32.6	36.7	37.0	37.0	37.1	37.6	37.6	37.6
135°	26.9	31.7	35.9	36.4	36.4	36.5	36.7	36.7	36.7
180°	24.4	29.2	33.5	34.0	34.0	34.0	34.2	34.2	34.2
225°	22.7	27.5	31.8	32.2	32.2	32.4	32.4	32.5	32.5
270°	23.8	28.6	32.9	33.4	33.4	33.6	33.6	33.6	33.6
315°	26.3	31.1	35.3	35.2	35.2	36.0	36.1	36.1	36.1
Worst	27.8	32.6	36.9	37.3	37.3	37.5	37.6	37.6	37.6
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5



Table 11M.39: Predicted Compliance – H55

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	27.8	32.6	36.9	37.3	37.3	37.5	37.6	37.6	37.6
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-12.2	-7.4	-3.1	-2.7	-2.7	-2.9	-5.5	-8.2	-10.9
Predicted Compliance of Worst Direction – Night-time	-15.2	-10.4	-6.1	-5.7	-5.7	-5.5	-5.4	-5.4	-8.5

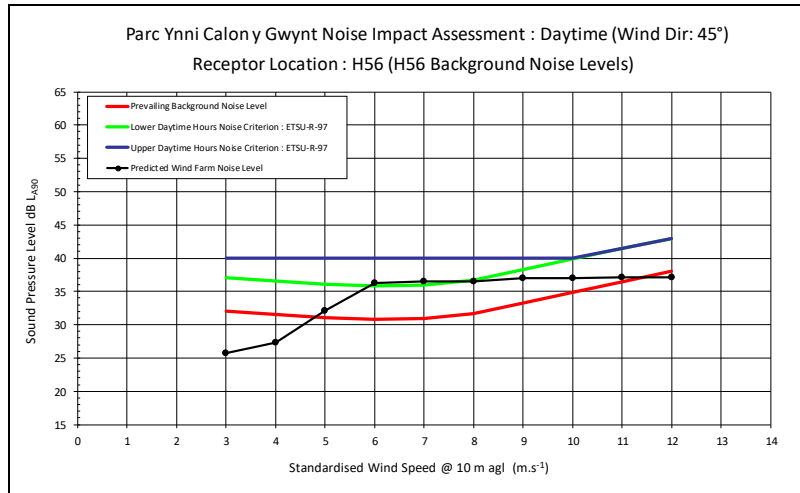


Plate 11M.39: Daytime Assessment at H56

Plates 11.M.39 – 11.M.40 detail the predicted L_{A90} noise levels for the receptor known as H56 during the daytime and night-time periods, for a downwind 45° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Upper Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.40 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.41 details the predicted compliance with the ETSU-R-97 noise criteria.

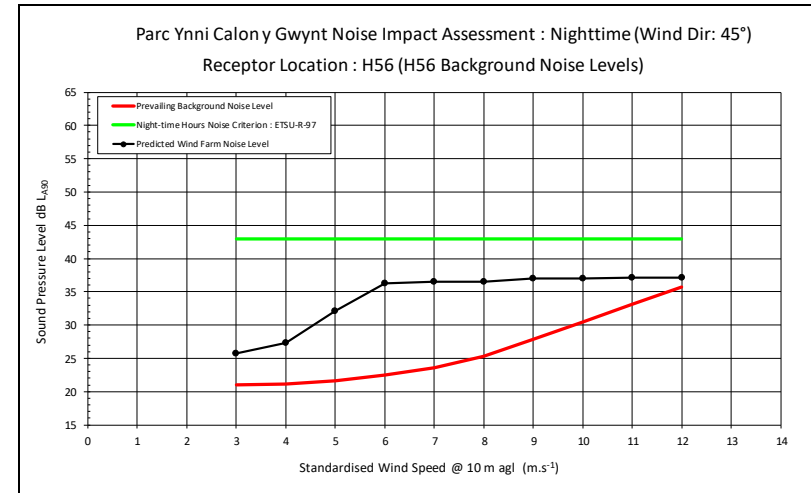


Plate 11M.40: Night-time Assessment at H56

Table 11M.40: Predicted Calon y Gwynt Noise Level – H56

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	27.3	32.1	35.7	35.4	35.1	36.7	36.9	37.1	37.1
45°	27.3	32.1	36.3	36.6	36.5	37.0	37.0	37.1	37.1
90°	26.9	31.7	35.9	36.2	36.2	36.4	36.7	36.7	36.7
135°	25.2	30.0	34.3	34.8	34.7	34.9	35.0	35.0	35.0
180°	22.7	27.5	31.9	32.3	32.3	32.4	32.5	32.5	32.5
225°	22.6	27.4	31.8	32.2	32.2	32.3	32.4	32.4	32.4
270°	24.9	29.7	33.8	34.3	34.3	34.6	34.6	34.7	34.7
315°	26.8	31.6	35.5	35.3	35.3	36.3	36.5	36.6	36.6
Worst	27.3	32.1	36.3	36.6	36.5	37.0	37.0	37.1	37.1
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.0	40.0	41.4	43.0

Table 11M.41: Predicted Compliance – H56

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	27.3	32.1	36.3	36.6	36.5	37.0	37.0	37.1	37.1
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.0	40.0	41.4	43.0
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
Predicted Compliance of Worst Direction – Daytime	-12.7	-7.9	-3.7	-3.4	-3.5	-3.0	-3.0	-4.3	-5.9
Predicted Compliance of Worst Direction – Night-time	-15.7	-10.9	-6.7	-6.4	-6.5	-6.0	-6.0	-5.9	-5.9

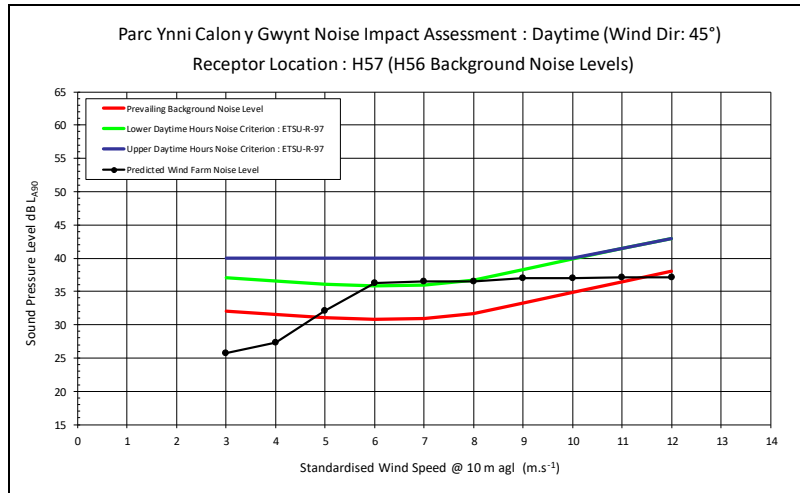


Plate 11M.41: Daytime Assessment at H57

Plates 11.M.41 – 11.M.42 detail the predicted L_{A90} noise levels for the receptor known as H57 during the daytime and night-time periods, for a downwind 45° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Upper Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.42 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.43 details the predicted compliance with the ETSU-R-97 noise criteria.

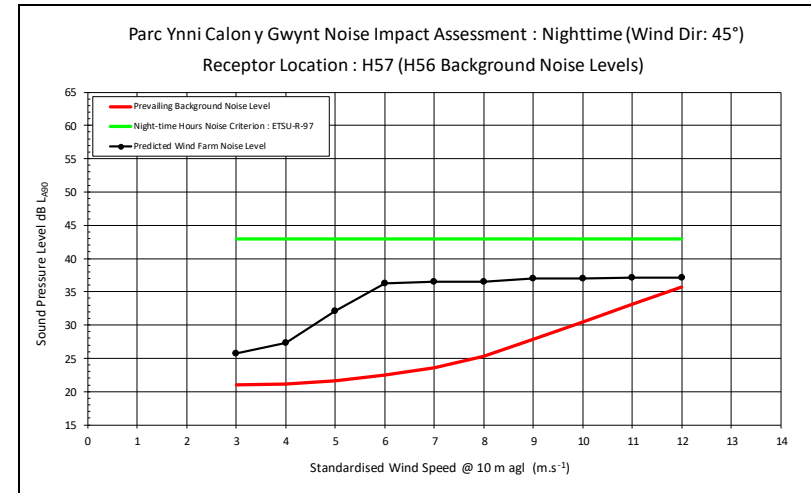


Plate 11M.42: Night-time Assessment at H57

Table 11M.42: Predicted Calon y Gwynt Noise Level – H57

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	27.3	32.1	35.6	35.4	35.1	36.7	36.9	37.1	37.1
45°	27.3	32.1	36.3	36.5	36.5	37.0	37.0	37.1	37.1
90°	27.0	31.8	35.9	36.3	36.3	36.4	36.7	36.8	36.8
135°	25.2	30.0	34.3	34.7	34.7	34.8	35.0	35.0	35.0
180°	22.7	27.5	31.8	32.2	32.2	32.3	32.4	32.5	32.5
225°	22.7	27.5	31.8	32.2	32.2	32.3	32.4	32.5	32.5
270°	25.0	29.8	33.9	34.4	34.4	34.7	34.7	34.8	34.8
315°	26.9	31.7	35.6	35.3	35.3	36.5	36.6	36.7	36.7
Worst	27.3	32.1	36.3	36.5	36.5	37.0	37.0	37.1	37.1
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.0	40.0	41.4	43.0

Table 11M.43: Predicted Compliance – H57

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	27.3	32.1	36.3	36.5	36.5	37.0	37.0	37.1	37.1
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.0	40.0	41.4	43.0
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
Predicted Compliance of Worst Direction – Daytime	-12.7	-7.9	-3.7	-3.5	-3.5	-3.0	-3.0	-4.3	-5.9
Predicted Compliance of Worst Direction – Night-time	-15.7	-10.9	-6.7	-6.5	-6.5	-6.0	-6.0	-5.9	-5.9

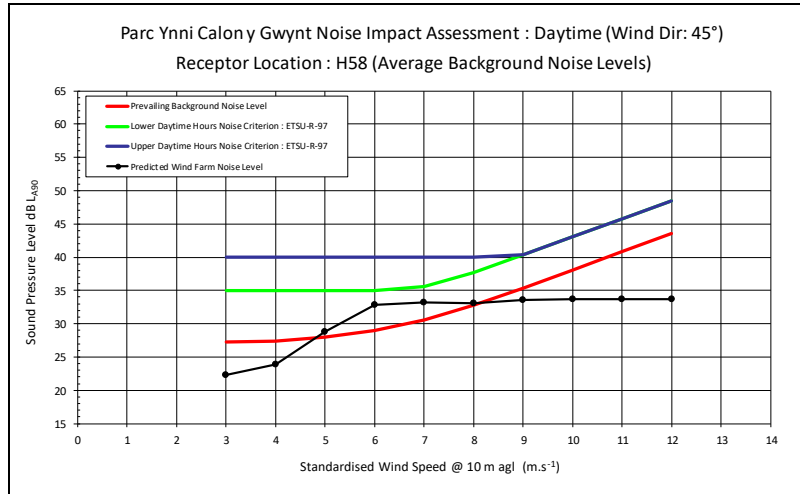


Plate 11M.43: Daytime Assessment at H58

Plates 11.M.43 – 11.M.44 detail the predicted L_{A90} noise levels for the receptor known as H58 during the daytime and night-time periods, for a downwind 45° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.44 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.45 details the predicted compliance with the ETSU-R-97 noise criteria.

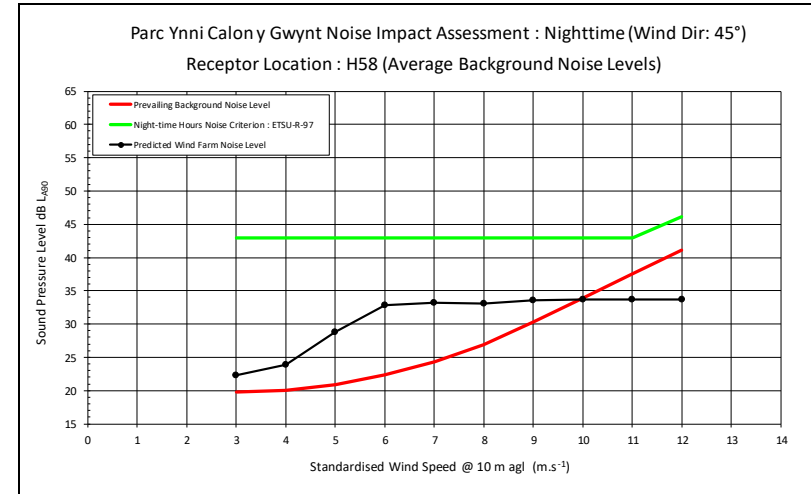


Plate 11M.44: Night-time Assessment at H58

Table 11M.44: Predicted Calon y Gwynt Noise Level – H58

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	23.9	28.7	32.4	32.2	32.0	33.3	33.5	33.7	33.7
45°	23.9	28.7	32.9	33.2	33.1	33.6	33.6	33.7	33.7
90°	23.9	28.7	32.8	33.1	33.1	33.3	33.7	33.7	33.7
135°	21.7	26.5	30.7	31.1	31.1	31.2	31.5	31.5	31.5
180°	17.4	22.2	26.4	26.6	26.6	26.8	27.1	27.2	27.2
225°	16.3	21.1	25.4	25.5	25.5	25.8	26.0	26.1	26.1
270°	19.7	24.5	28.6	29.0	29.0	29.3	29.4	29.5	29.5
315°	23.4	28.2	32.2	32.1	32.1	33.0	33.1	33.2	33.2
Worst	23.9	28.7	32.9	33.2	33.1	33.6	33.7	33.7	33.7
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5



Table 11M.45: Predicted Compliance – H58

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	23.9	28.7	32.9	33.2	33.1	33.6	33.7	33.7	33.7
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-16.1	-11.3	-7.1	-6.8	-6.9	-6.8	-9.4	-12.1	-14.8
Predicted Compliance of Worst Direction – Night-time	-19.1	-14.3	-10.1	-9.8	-9.9	-9.4	-9.3	-9.3	-12.4

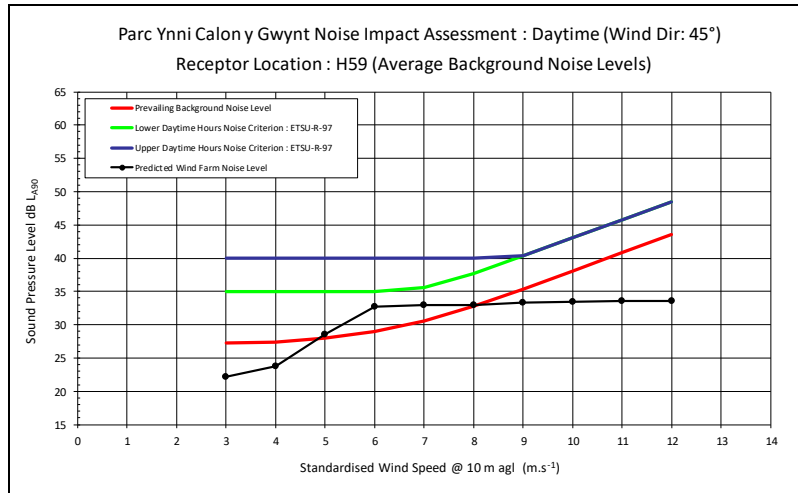


Plate 11M.45: Daytime Assessment at H59

Plates 11.M.45 – 11.M.46 detail the predicted L_{A90} noise levels for the receptor known as H59 during the daytime and night-time periods, for a downwind 45° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.46 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.47 details the predicted compliance with the ETSU-R-97 noise criteria.

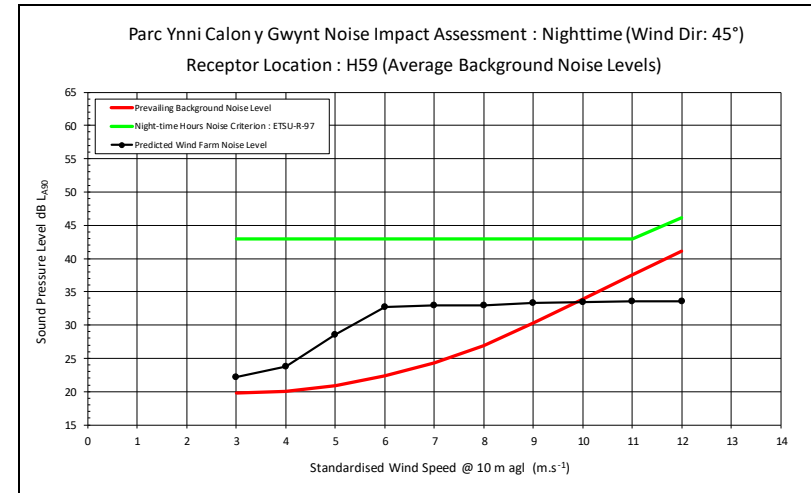


Plate 11M.46: Night-time Assessment at H59

Table 11M.46: Predicted Calon y Gwynt Noise Level – H59

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	23.7	28.5	32.2	32.1	31.8	33.2	33.3	33.5	33.5
45°	23.7	28.5	32.7	33.0	32.9	33.4	33.4	33.5	33.5
90°	23.7	28.5	32.5	32.8	32.8	33.0	33.5	33.5	33.5
135°	21.5	26.3	30.5	30.9	30.9	31.1	31.3	31.3	31.3
180°	17.4	22.2	26.4	26.6	26.6	26.8	27.1	27.2	27.2
225°	15.9	20.7	24.9	25.0	25.0	25.4	25.6	25.7	25.7
270°	18.9	23.7	27.8	28.2	28.2	28.5	28.6	28.7	28.7
315°	22.6	27.4	31.3	31.4	31.4	32.2	32.3	32.4	32.4
Worst	23.7	28.5	32.7	33.0	32.9	33.4	33.5	33.5	33.5
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5

Table 11M.47: Predicted Compliance – H59

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	23.7	28.5	32.7	33.0	32.9	33.4	33.5	33.5	33.5
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-16.3	-11.5	-7.3	-7.0	-7.1	-7.0	-9.6	-12.3	-15.0
Predicted Compliance of Worst Direction – Night-time	-19.3	-14.5	-10.3	-10.0	-10.1	-9.6	-9.5	-9.5	-12.6

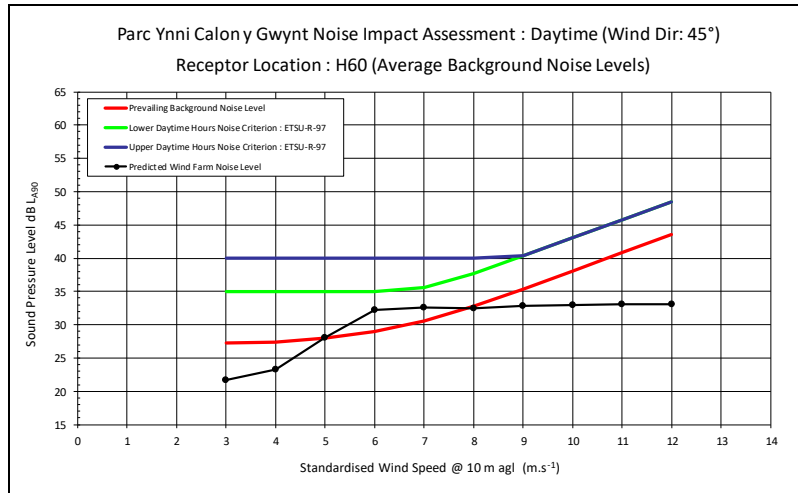


Plate 11M.47: Daytime Assessment at H60

Plates 11.M.47 – 11.M.48 detail the predicted L_{A90} noise levels for the receptor known as H60 during the daytime and night-time periods, for a downwind 45° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.48 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.49 details the predicted compliance with the ETSU-R-97 noise criteria.

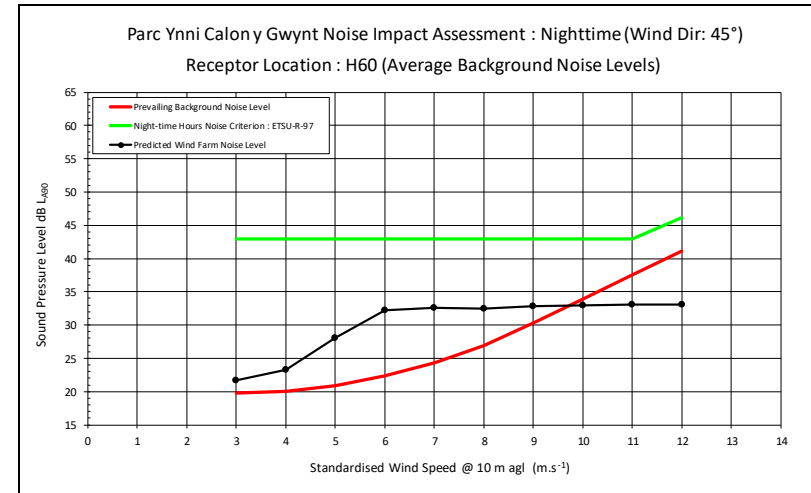


Plate 11M.48: Night-time Assessment at H60

Table 11M.48: Predicted Calon y Gwynt Noise Level – H60

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	23.2	28.0	31.7	31.7	31.4	32.7	32.9	33.0	33.0
45°	23.2	28.0	32.2	32.5	32.5	32.9	32.9	33.0	33.0
90°	23.2	28.0	32.0	32.3	32.3	32.5	33.0	33.0	33.0
135°	21.6	26.4	30.6	30.9	30.9	31.1	31.4	31.4	31.4
180°	17.3	22.1	26.2	26.5	26.5	26.7	27.0	27.1	27.1
225°	15.2	20.0	24.2	24.3	24.3	24.7	24.9	25.0	25.0
270°	17.6	22.4	26.5	26.9	26.9	27.2	27.3	27.4	27.4
315°	22.1	26.9	30.8	30.9	30.9	31.7	31.8	31.9	31.9
Worst	23.2	28.0	32.2	32.5	32.5	32.9	33.0	33.0	33.0
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5



Table 11M.49: Predicted Compliance – H60

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	23.2	28.0	32.2	32.5	32.5	32.9	33.0	33.0	33.0
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-16.8	-12.0	-7.8	-7.5	-7.5	-7.5	-10.1	-12.8	-15.5
Predicted Compliance of Worst Direction – Night-time	-19.8	-15.0	-10.8	-10.5	-10.5	-10.1	-10.0	-10.0	-13.1

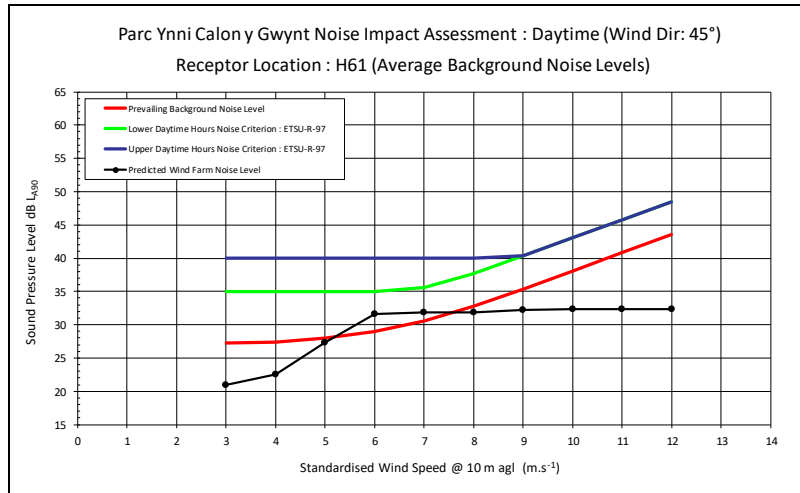


Plate 11M.49: Daytime Assessment at H61

Plates 11.M.49 – 11.M.50 detail the predicted L_{A90} noise levels for the receptor known as H61 during the daytime and night-time periods, for a downwind 45° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.50 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.51 details the predicted compliance with the ETSU-R-97 noise criteria.

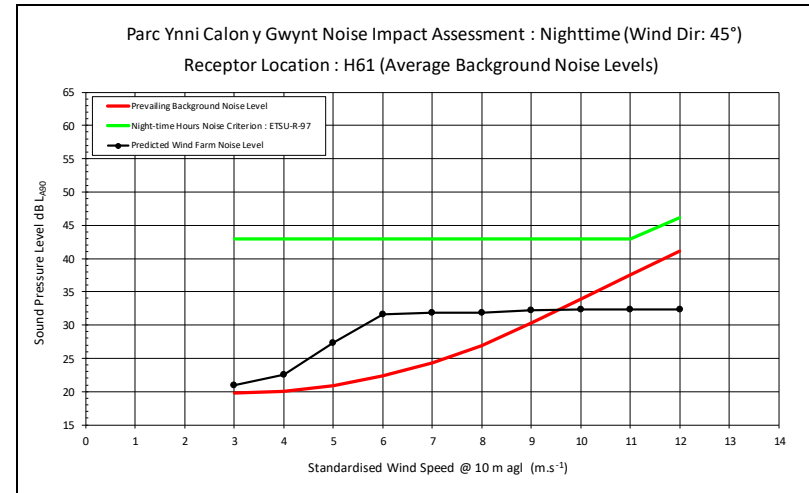


Plate 11M.50: Night-time Assessment at H61

Table 11M.50: Predicted Calon y Gwynt Noise Level – H61

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	22.6	27.4	31.1	31.0	30.8	32.0	32.2	32.4	32.4
45°	22.6	27.4	31.5	31.9	31.8	32.2	32.3	32.4	32.4
90°	22.6	27.4	31.3	31.6	31.6	31.8	32.4	32.4	32.4
135°	20.9	25.7	29.9	30.2	30.2	30.4	30.7	30.7	30.7
180°	16.9	21.7	25.8	26.0	26.0	26.2	26.6	26.7	26.7
225°	14.4	19.2	23.4	23.4	23.4	23.8	24.1	24.2	24.2
270°	16.5	21.3	25.3	25.6	25.6	26.0	26.1	26.3	26.3
315°	20.8	25.6	29.5	29.5	29.5	30.3	30.5	30.6	30.6
Worst	22.6	27.4	31.5	31.9	31.8	32.2	32.4	32.4	32.4
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5



Table 11M.51: Predicted Compliance – H61

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	22.6	27.4	31.5	31.9	31.8	32.2	32.4	32.4	32.4
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-17.4	-12.6	-8.5	-8.1	-8.2	-8.2	-10.7	-13.4	-16.1
Predicted Compliance of Worst Direction – Night-time	-20.4	-15.6	-11.5	-11.1	-11.2	-10.8	-10.6	-10.6	-13.7

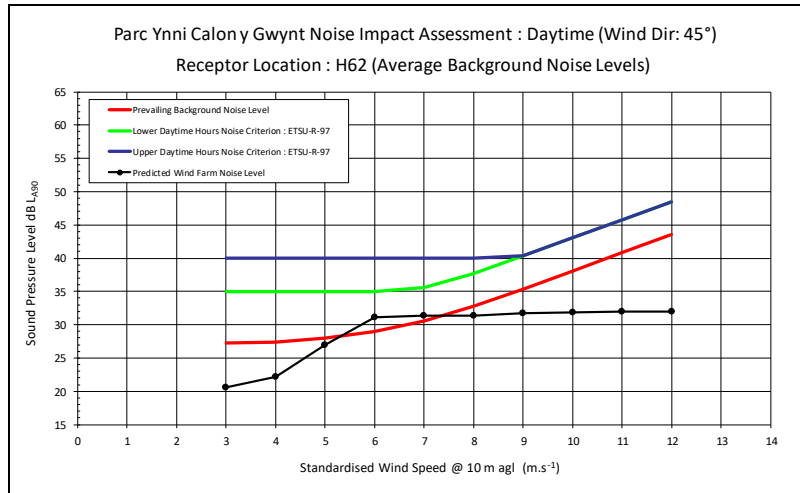


Plate 11M.51: Daytime Assessment at H62

Plates 11.M.51 – 11.M.52 detail the predicted L_{A90} noise levels for the receptor known as H62 during the daytime and night-time periods, for a downwind 45° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.52 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.53 details the predicted compliance with the ETSU-R-97 noise criteria.

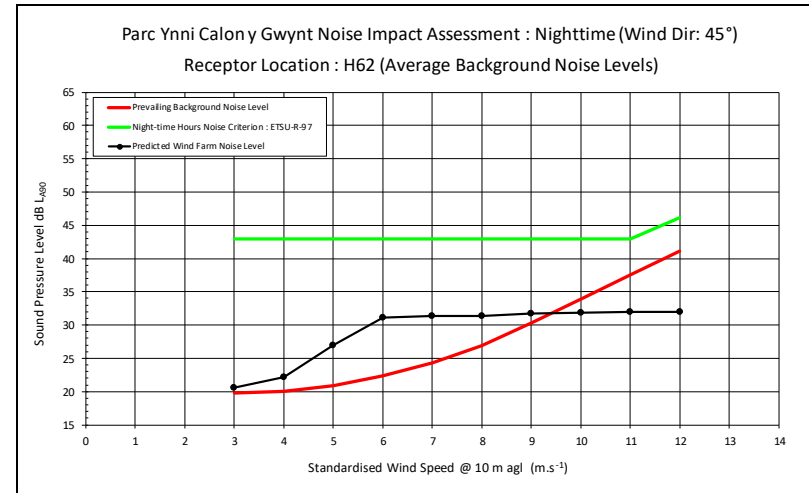


Plate 11M.52: Night-time Assessment at H62

Table 11.M.52: Predicted Calon y Gwynt Noise Level – H62

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	22.1	26.9	30.6	30.6	30.3	31.6	31.8	31.9	31.9
45°	22.1	26.9	31.1	31.4	31.4	31.8	31.8	31.9	31.9
90°	22.1	26.9	30.9	31.2	31.2	31.4	31.9	31.9	31.9
135°	20.5	25.3	29.4	29.8	29.7	30.0	30.3	30.3	30.3
180°	16.4	21.2	25.4	25.6	25.6	25.8	26.1	26.2	26.2
225°	14.0	18.8	23.0	23.0	23.0	23.4	23.7	23.8	23.8
270°	16.0	20.8	24.8	25.2	25.2	25.6	25.7	25.8	25.8
315°	20.3	25.1	29.0	29.0	29.0	29.9	30.0	30.1	30.1
Worst	22.1	26.9	31.1	31.4	31.4	31.8	31.9	31.9	31.9
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5

Table 11M.53: Predicted Compliance – H62

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	22.1	26.9	31.1	31.4	31.4	31.8	31.9	31.9	31.9
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-17.9	-13.1	-8.9	-8.6	-8.6	-8.6	-11.2	-13.9	-16.6
Predicted Compliance of Worst Direction – Night-time	-20.9	-16.1	-11.9	-11.6	-11.6	-11.2	-11.1	-11.1	-14.2

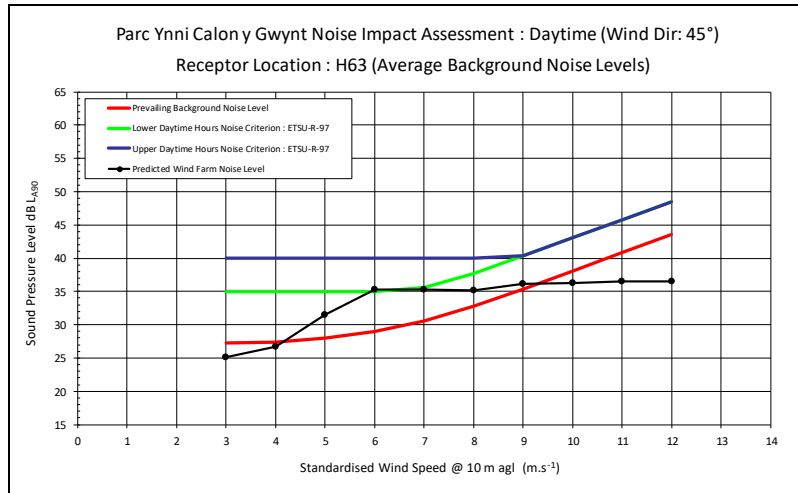


Plate 11M.53: Daytime Assessment at H63

Plates 11.M.53 – 11.M.54 detail the predicted L_{A90} noise levels for the receptor known as H63 during the daytime and night-time periods, for a downwind 45° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Upper Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.54 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.55 details the predicted compliance with the ETSU-R-97 noise criteria.

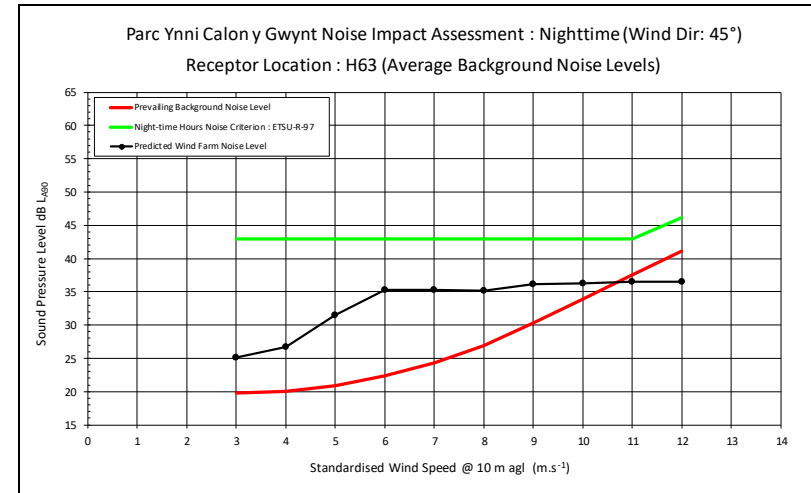


Plate 11M.54: Night-time Assessment at H63

Table 11M.54: Predicted Calon y Gwynt Noise Level – H63

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	26.7	31.5	34.1	33.8	33.6	35.6	36.0	36.5	36.5
45°	26.7	31.5	35.3	35.3	35.1	36.1	36.3	36.5	36.5
90°	25.4	30.2	34.3	34.5	34.5	34.9	35.2	35.2	35.2
135°	22.4	27.2	31.5	32.0	31.9	32.1	32.2	32.2	32.2
180°	20.1	24.9	29.2	29.5	29.5	29.6	29.8	29.9	29.9
225°	22.1	26.9	31.1	31.4	31.4	31.6	31.7	31.9	31.9
270°	25.3	30.1	33.7	33.9	33.9	34.8	34.9	35.1	35.1
315°	26.6	31.4	34.4	33.9	33.9	35.6	36.0	36.4	36.4
Worst	26.7	31.5	35.3	35.3	35.1	36.1	36.3	36.5	36.5
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5

Table 11M.55: Predicted Compliance – H63

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	26.7	31.5	35.3	35.3	35.1	36.1	36.3	36.5	36.5
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-13.3	-8.5	-4.7	-4.7	-4.9	-4.3	-6.8	-9.3	-12.0
Predicted Compliance of Worst Direction – Night-time	-16.3	-11.5	-7.7	-7.7	-7.9	-6.9	-6.7	-6.5	-9.6

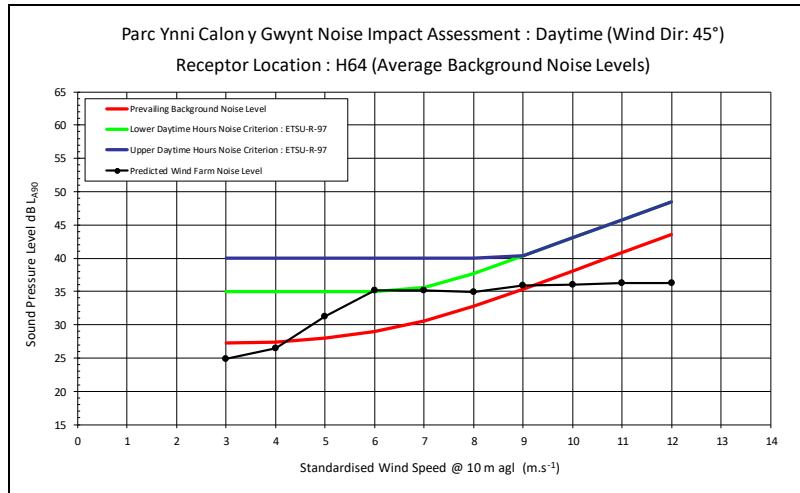


Plate 11M.55: Daytime Assessment at H64

Plates 11.M.55 – 11.M.56 detail the predicted L_{A90} noise levels for the receptor known as H64 during the daytime and night-time periods, for a downwind 45° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Upper Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.56 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.57 details the predicted compliance with the ETSU-R-97 noise criteria.

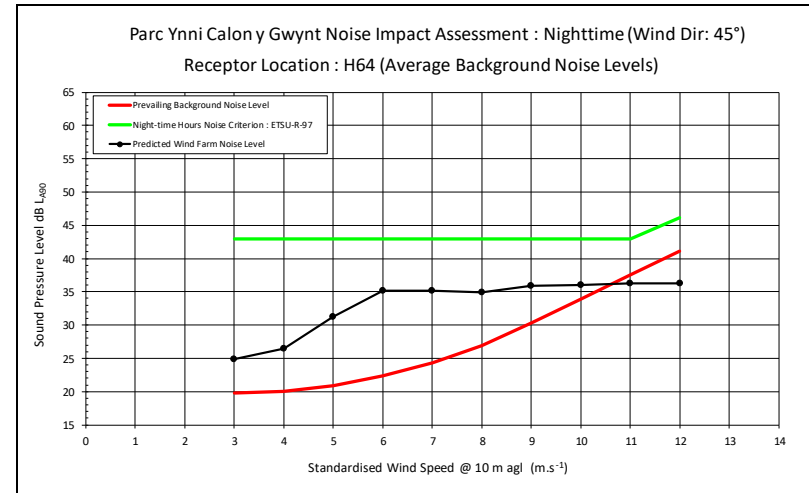


Plate 11M.56: Night-time Assessment at H64

Table 11M.56: Predicted Calon y Gwynt Noise Level – H64

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	26.5	31.3	33.9	33.7	33.4	35.4	35.8	36.3	36.3
45°	26.5	31.3	35.1	35.1	34.9	35.9	36.1	36.3	36.3
90°	24.6	29.4	33.4	33.6	33.6	34.0	34.4	34.4	34.4
135°	21.9	26.7	31.0	31.5	31.3	31.6	31.7	31.7	31.7
180°	19.7	24.5	28.7	29.0	29.0	29.1	29.3	29.5	29.5
225°	21.8	26.6	30.9	31.2	31.2	31.4	31.5	31.6	31.6
270°	24.9	29.7	33.4	33.6	33.6	34.5	34.6	34.7	34.7
315°	26.4	31.2	34.2	33.8	33.7	35.4	35.8	36.2	36.2
Worst	26.5	31.3	35.1	35.1	34.9	35.9	36.1	36.3	36.3
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5

Table 11M.57: Predicted Compliance – H64

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	26.5	31.3	35.1	35.1	34.9	35.9	36.1	36.3	36.3
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-13.5	-8.7	-4.9	-4.9	-5.1	-4.5	-7.0	-9.5	-12.2
Predicted Compliance of Worst Direction – Night-time	-16.5	-11.7	-7.9	-7.9	-8.1	-7.1	-6.9	-6.7	-9.8

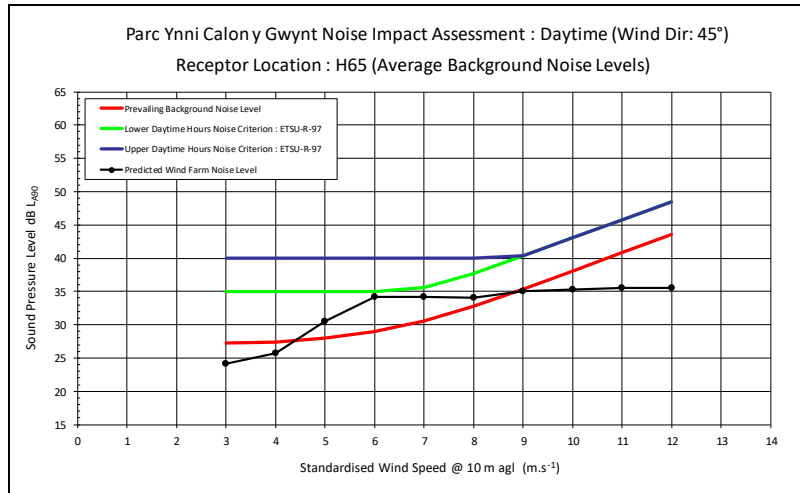


Plate 11M.57: Daytime Assessment at H65

Plates 11.M.57 – 11.M.58 detail the predicted L_{A90} noise levels for the receptor known as H65 during the daytime and night-time periods, for a downwind 45° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.58 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.59 details the predicted compliance with the ETSU-R-97 noise criteria.

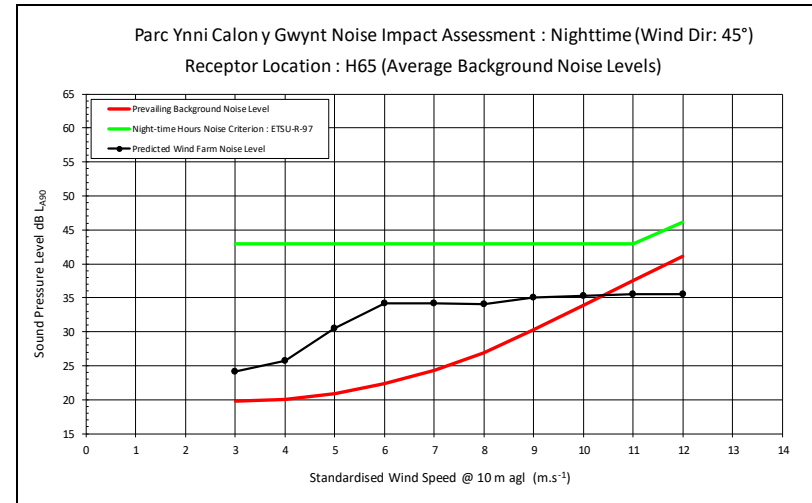


Plate 11M.58: Night-time Assessment at H65

Table 11M.58: Predicted Calon y Gwynt Noise Level – H65

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	25.7	30.5	33.1	32.9	32.6	34.5	35.0	35.5	35.5
45°	25.7	30.5	34.2	34.2	34.0	35.1	35.2	35.5	35.5
90°	23.8	28.6	32.5	32.6	32.6	33.2	33.5	33.6	33.6
135°	20.6	25.4	29.7	30.1	29.9	30.3	30.4	30.4	30.4
180°	18.5	23.3	27.5	27.6	27.6	27.9	28.1	28.3	28.3
225°	21.2	26.0	30.2	30.4	30.4	30.7	30.8	31.0	31.0
270°	24.1	28.9	32.5	32.7	32.7	33.6	33.7	33.9	33.9
315°	25.5	30.3	33.3	32.9	32.9	34.5	34.9	35.3	35.3
Worst	25.7	30.5	34.2	34.2	34.0	35.1	35.2	35.5	35.5
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5



Table 11M.59: Predicted Compliance – H65

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	25.7	30.5	34.2	34.2	34.0	35.1	35.2	35.5	35.5
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-14.3	-9.5	-5.8	-5.8	-6.0	-5.3	-7.9	-10.3	-13.0
Predicted Compliance of Worst Direction – Night-time	-17.3	-12.5	-8.8	-8.8	-9.0	-7.9	-7.8	-7.5	-10.6

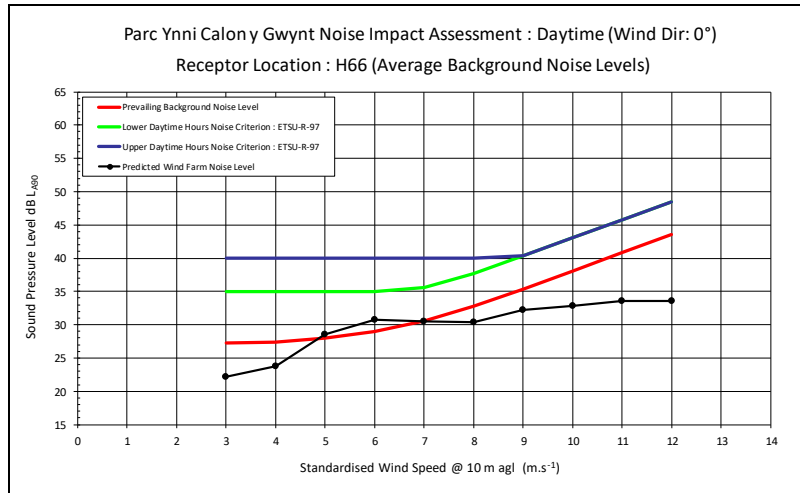


Plate 11M.59: Daytime Assessment at H66

Plates 11.M.59 – 11.M.60 detail the predicted L_{A90} noise levels for the receptor known as H66 during the daytime and night-time periods, for a downwind 0° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.60 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.61 details the predicted compliance with the ETSU-R-97 noise criteria.

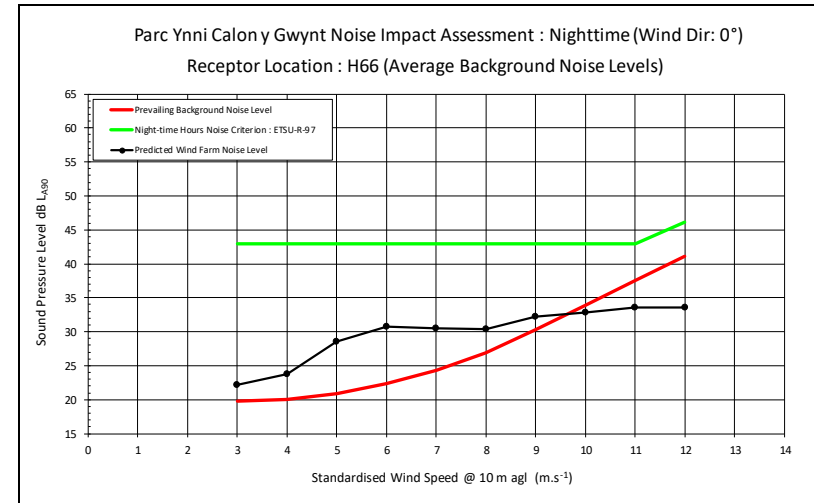


Plate 11M.60: Night-time Assessment at H66

Table 11M.60: Predicted Calon y Gwynt Noise Level – H66

Wind Direction ($^\circ$)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	23.8	28.6	30.7	30.5	30.4	32.3	32.9	33.6	33.6
45°	23.5	28.3	31.5	31.4	31.2	32.6	32.8	33.3	33.3
90°	21.5	26.3	30.1	30.0	30.0	31.0	31.3	31.3	31.3
135°	17.5	22.3	26.5	26.8	26.6	27.0	27.3	27.3	27.3
180°	15.9	20.7	24.9	24.8	24.8	25.2	25.5	25.7	25.7
225°	19.2	24.0	28.1	28.1	28.1	28.5	28.7	29.0	29.0
270°	22.8	27.6	30.7	30.7	30.7	32.0	32.2	32.6	32.6
315°	23.8	28.6	31.0	30.7	30.6	32.3	33.1	33.6	33.6
Worst	23.8	28.6	31.5	31.4	31.2	32.6	33.1	33.6	33.6
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5

Table 11M.61: Predicted Compliance – H66

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	23.8	28.6	31.5	31.4	31.2	32.6	33.1	33.6	33.6
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-16.2	-11.4	-8.5	-8.6	-8.8	-7.8	-10.0	-12.2	-14.9
Predicted Compliance of Worst Direction – Night-time	-19.2	-14.4	-11.5	-11.6	-11.8	-10.4	-9.9	-9.4	-12.5

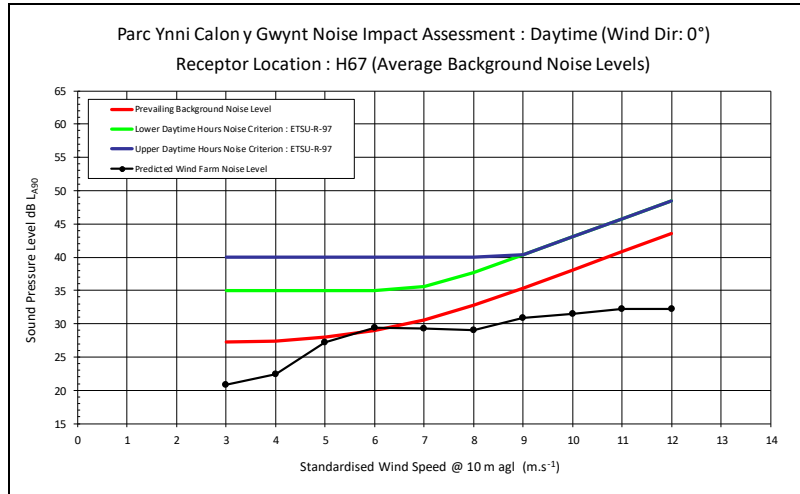


Plate 11M.61: Daytime Assessment at H67

Plates 11.M.61 – 11.M.62 detail the predicted L_{A90} noise levels for the receptor known as H67 during the daytime and night-time periods, for a downwind 0° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.62 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.63 details the predicted compliance with the ETSU-R-97 noise criteria.

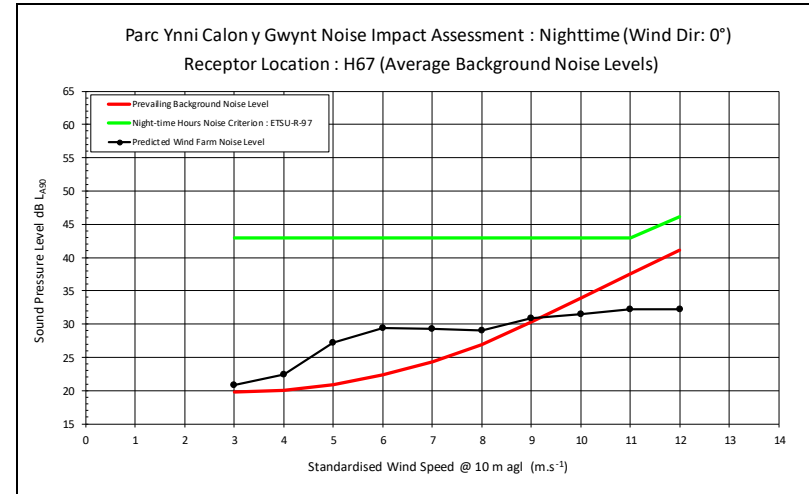


Plate 11M.62: Night-time Assessment at H67

Table 11M.62: Predicted Calon y Gwynt Noise Level – H67

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	22.4	27.2	29.5	29.2	29.1	30.9	31.5	32.2	32.2
45°	22.1	26.9	30.1	30.0	29.8	31.2	31.5	31.9	31.9
90°	20.0	24.8	28.5	28.4	28.4	29.5	29.8	29.8	29.8
135°	15.6	20.4	24.6	25.0	24.7	25.2	25.4	25.4	25.4
180°	14.6	19.4	23.6	23.6	23.6	23.9	24.3	24.4	24.4
225°	18.2	23.0	27.1	27.0	27.0	27.5	27.7	28.0	28.0
270°	21.7	26.5	29.5	29.6	29.6	30.8	31.0	31.5	31.5
315°	22.4	27.2	29.7	29.4	29.4	31.0	31.8	32.2	32.2
Worst	22.4	27.2	30.1	30.0	29.8	31.2	31.8	32.2	32.2
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5



Table 11M.63: Predicted Compliance – H67

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	22.4	27.2	30.1	30.0	29.8	31.2	31.8	32.2	32.2
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-17.6	-12.8	-9.9	-10.0	-10.2	-9.2	-11.3	-13.6	-16.3
Predicted Compliance of Worst Direction – Night-time	-20.6	-15.8	-12.9	-13.0	-13.2	-11.8	-11.2	-10.8	-13.9

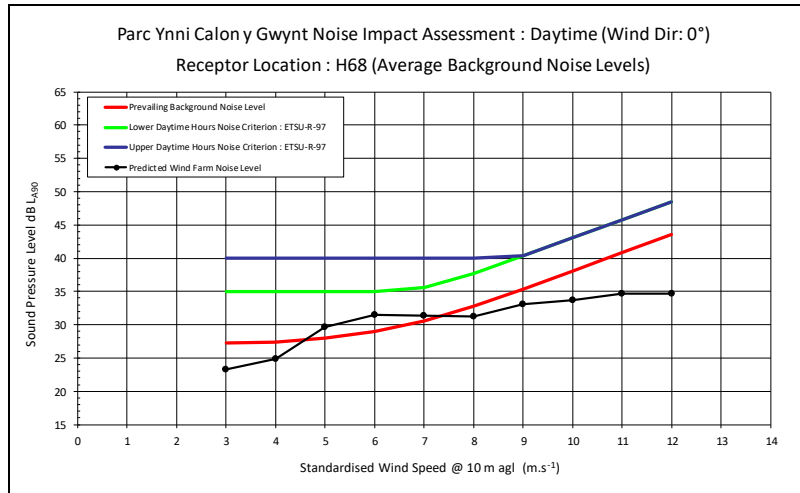


Plate 11M.63: Daytime Assessment at H68

Plates 11.M.63 – 11.M.64 detail the predicted L_{A90} noise levels for the receptor known as H68 during the daytime and night-time periods, for a downwind 0° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.64 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.65 details the predicted compliance with the ETSU-R-97 noise criteria.

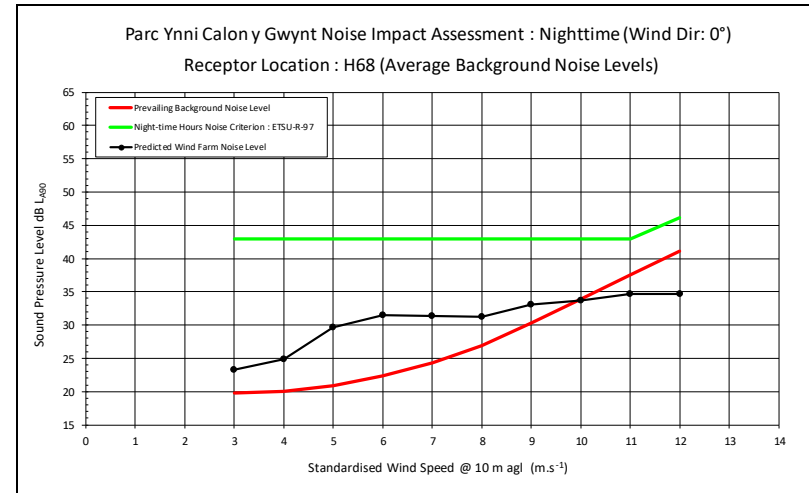


Plate 11M.64: Night-time Assessment at H68

Table 11M.64: Predicted Calon y Gwynt Noise Level – H68

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	24.9	29.7	31.5	31.3	31.2	33.0	33.7	34.7	34.7
45°	24.6	29.4	32.3	32.1	32.0	33.5	33.9	34.4	34.4
90°	21.7	26.5	30.2	29.9	29.9	31.1	31.4	31.5	31.5
135°	18.0	22.8	27.1	27.4	27.1	27.7	27.8	27.8	27.8
180°	17.4	22.2	26.5	26.3	26.3	26.7	27.0	27.2	27.2
225°	21.0	25.8	29.8	29.5	29.5	30.2	30.4	30.8	30.8
270°	24.1	28.9	31.6	31.6	31.6	33.0	33.2	33.9	33.9
315°	24.9	29.7	31.7	31.5	31.4	33.1	34.1	34.7	34.7
Worst	24.9	29.7	32.3	32.1	32.0	33.5	34.1	34.7	34.7
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5



Table 11M.65: Predicted Compliance – H68

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	24.9	29.7	32.3	32.1	32.0	33.5	34.1	34.7	34.7
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-15.1	-10.3	-7.7	-7.9	-8.0	-6.9	-9.0	-11.1	-13.8
Predicted Compliance of Worst Direction – Night-time	-18.1	-13.3	-10.7	-10.9	-11.0	-9.5	-8.9	-8.3	-11.4

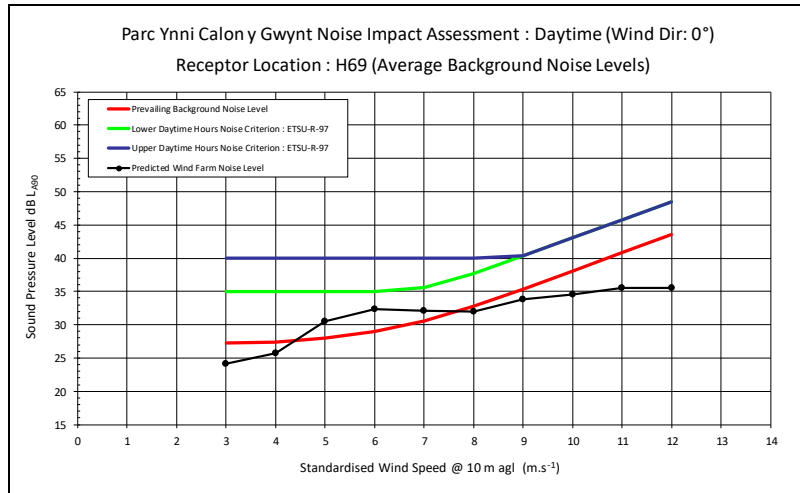


Plate 11M.65: Daytime Assessment at H69

Plates 11.M.65 – 11.M.66 detail the predicted L_{A90} noise levels for the receptor known as H69 during the daytime and night-time periods, for a downwind 0° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.66 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.67 details the predicted compliance with the ETSU-R-97 noise criteria.

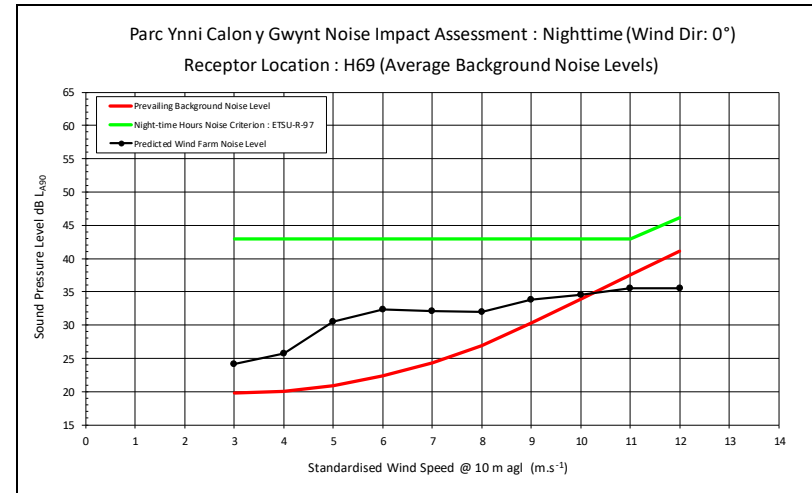


Plate 11M.66: Night-time Assessment at H69

Table 11M.66: Predicted Calon y Gwynt Noise Level – H69

Wind Direction ($^\circ$)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	25.7	30.5	32.3	32.1	32.0	33.8	34.6	35.5	35.5
45°	25.5	30.3	33.1	33.0	32.8	34.4	34.7	35.3	35.3
90°	22.6	27.4	31.1	30.9	30.9	32.0	32.3	32.4	32.4
135°	19.3	24.1	28.4	28.8	28.4	29.0	29.1	29.1	29.1
180°	18.7	23.5	27.7	27.5	27.5	28.0	28.3	28.5	28.5
225°	22.1	26.9	30.9	30.5	30.5	31.2	31.4	31.9	31.9
270°	24.9	29.7	32.5	32.4	32.4	33.8	34.0	34.7	34.7
315°	25.7	30.5	32.6	32.4	32.3	33.9	34.9	35.5	35.5
Worst	25.7	30.5	33.1	33.0	32.8	34.4	34.9	35.5	35.5
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5



Table 11M.67: Predicted Compliance – H69

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	25.7	30.5	33.1	33.0	32.8	34.4	34.9	35.5	35.5
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-14.3	-9.5	-6.9	-7.0	-7.2	-6.0	-8.2	-10.3	-13.0
Predicted Compliance of Worst Direction – Night-time	-17.3	-12.5	-9.9	-10.0	-10.2	-8.6	-8.1	-7.5	-10.6

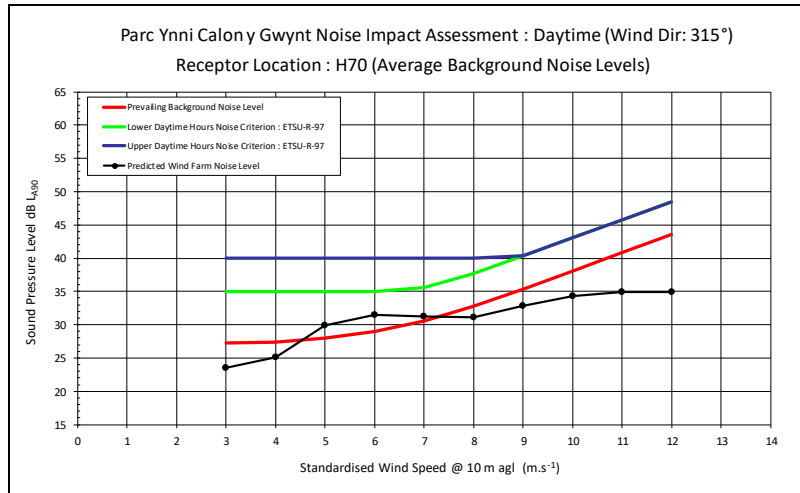


Plate 11M.67: Daytime Assessment at H70

Plates 11.M.67 – 11.M.68 detail the predicted L_{A90} noise levels for the receptor known as H70 during the daytime and night-time periods, for a downwind 315° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.68 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.69 details the predicted compliance with the ETSU-R-97 noise criteria.

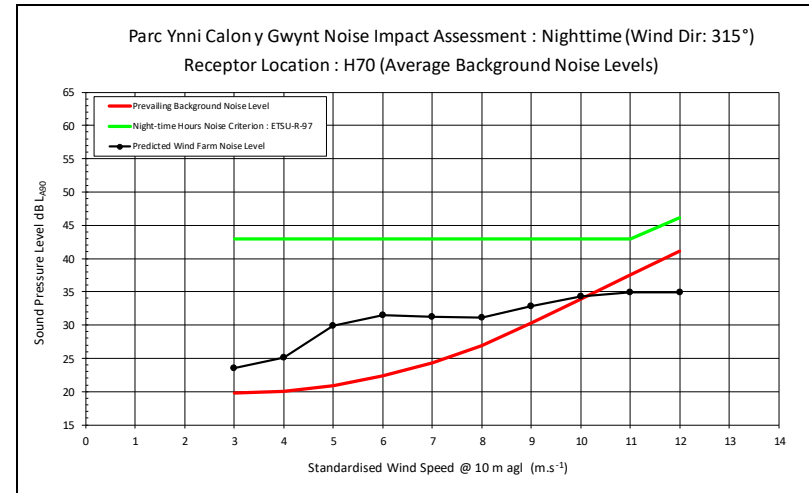


Plate 11M.68: Night-time Assessment at H70

Table 11M.68: Predicted Calon y Gwynt Noise Level – H70

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	25.1	29.9	31.2	31.0	31.0	32.8	33.7	34.9	34.9
45°	24.5	29.3	31.4	31.2	31.0	33.0	33.5	34.3	34.3
90°	21.7	26.5	30.0	29.6	29.6	31.1	31.4	31.5	31.5
135°	18.6	23.4	27.6	28.0	27.5	28.2	28.4	28.4	28.4
180°	18.6	23.4	27.7	27.3	27.3	27.9	28.2	28.4	28.4
225°	22.2	27.0	30.8	30.3	30.3	31.2	31.3	32.0	32.0
270°	24.6	29.4	31.6	31.5	31.5	33.0	33.4	34.4	34.4
315°	25.1	29.9	31.5	31.2	31.2	32.8	34.3	34.9	34.9
Worst	25.1	29.9	31.6	31.5	31.5	33.0	34.3	34.9	34.9
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5



Table 11M.69: Predicted Compliance – H70

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	25.1	29.9	31.6	31.5	31.5	33.0	34.3	34.9	34.9
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-14.9	-10.1	-8.4	-8.5	-8.5	-7.4	-8.8	-10.9	-13.6
Predicted Compliance of Worst Direction – Night-time	-17.9	-13.1	-11.4	-11.5	-11.5	-10.0	-8.7	-8.1	-11.2

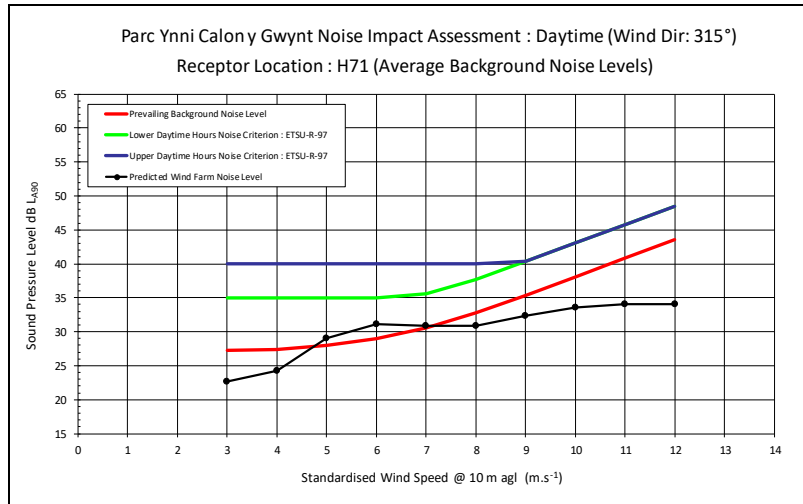


Plate 11M.69: Daytime Assessment at H71

Plates 11.M.69 – 11.M.70 detail the predicted LA_{90} noise levels for the receptor known as H71 during the daytime and night-time periods, for a downwind 315° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.70 details the predicted LA_{90} noise levels for other wind directions.

Table 11.M.71 details the predicted compliance with the ETSU-R-97 noise criteria.

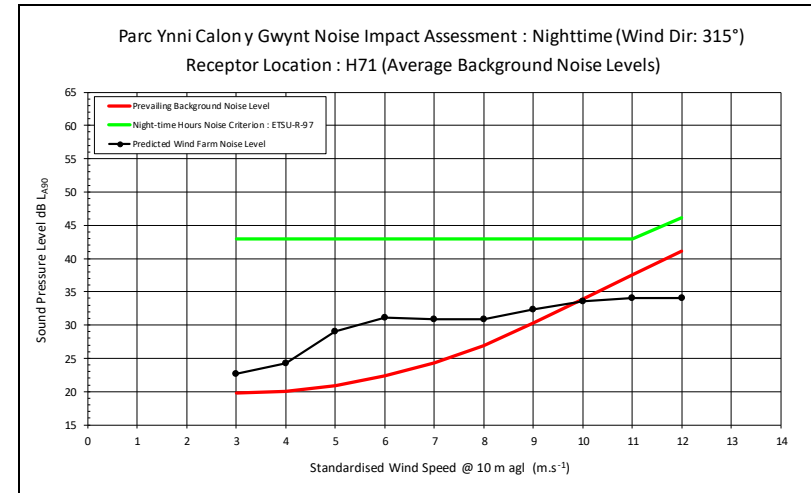


Plate 11M.70: Night-time Assessment at H71

Table 11M.70: Predicted Calon y Gwynt Noise Level – H71

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	24.2	29.0	30.9	30.7	30.6	32.3	33.1	34.0	34.0
45°	23.7	28.5	31.2	31.1	31.0	32.5	32.9	33.5	33.5
90°	20.6	25.4	29.0	28.7	28.7	30.0	30.3	30.4	30.4
135°	16.8	21.6	25.9	26.2	25.8	26.4	26.6	26.6	26.6
180°	17.1	21.9	26.1	26.0	26.0	26.4	26.7	26.9	26.9
225°	21.1	25.9	29.8	29.4	29.4	30.2	30.4	30.9	30.9
270°	23.8	28.6	31.2	31.2	31.2	32.6	32.9	33.6	33.6
315°	24.2	29.0	31.1	30.9	30.9	32.4	33.5	34.0	34.0
Worst	24.2	29.0	31.2	31.2	31.2	32.6	33.5	34.0	34.0
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5



Table 11M.71: Predicted Compliance – H71

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	24.2	29.0	31.2	31.2	31.2	32.6	33.5	34.0	34.0
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-15.8	-11.0	-8.8	-8.8	-8.8	-7.8	-9.6	-11.8	-14.5
Predicted Compliance of Worst Direction – Night-time	-18.8	-14.0	-11.8	-11.8	-11.8	-10.4	-9.5	-9.0	-12.1

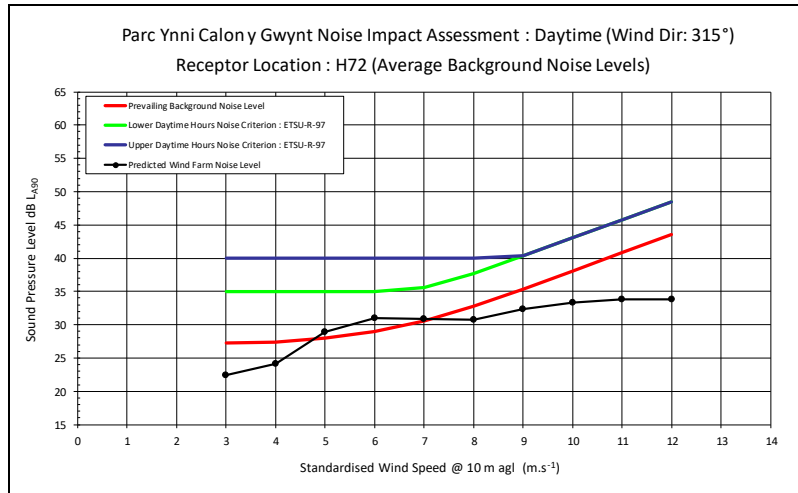


Plate 11M.71: Daytime Assessment at H72

Plates 11.M.71 – 11.M.72 detail the predicted L_{A90} noise levels for the receptor known as H72 during the daytime and night-time periods, for a downwind 315° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.72 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.73 details the predicted compliance with the ETSU-R-97 noise criteria.

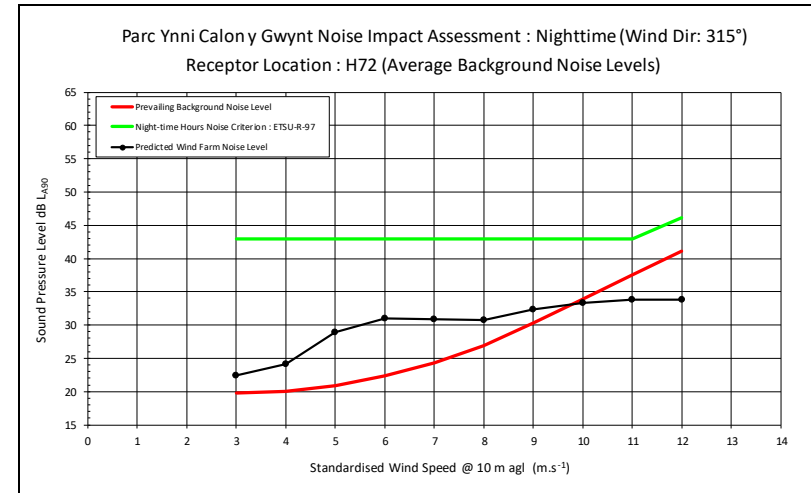


Plate 11M.72: Night-time Assessment at H72

Table 11M.72: Predicted Calon y Gwynt Noise Level – H72

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	24.1	28.9	30.8	30.7	30.6	32.3	33.0	33.9	33.9
45°	23.8	28.6	31.5	31.3	31.2	32.7	33.1	33.6	33.6
90°	20.6	25.4	29.0	28.7	28.7	30.0	30.3	30.4	30.4
135°	16.7	21.5	25.7	26.0	25.7	26.3	26.5	26.5	26.5
180°	16.8	21.6	25.8	25.6	25.6	26.1	26.4	26.6	26.6
225°	20.7	25.5	29.5	29.2	29.2	29.9	30.1	30.5	30.5
270°	23.6	28.4	31.0	31.0	31.0	32.4	32.7	33.4	33.4
315°	24.1	28.9	31.0	30.9	30.8	32.3	33.4	33.9	33.9
Worst	24.1	28.9	31.5	31.3	31.2	32.7	33.4	33.9	33.9
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5

Table 11M.73: Predicted Compliance – H72

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	24.1	28.9	31.5	31.3	31.2	32.7	33.4	33.9	33.9
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-15.9	-11.1	-8.5	-8.7	-8.8	-7.7	-9.7	-11.9	-14.6
Predicted Compliance of Worst Direction – Night-time	-18.9	-14.1	-11.5	-11.7	-11.8	-10.3	-9.6	-9.1	-12.2

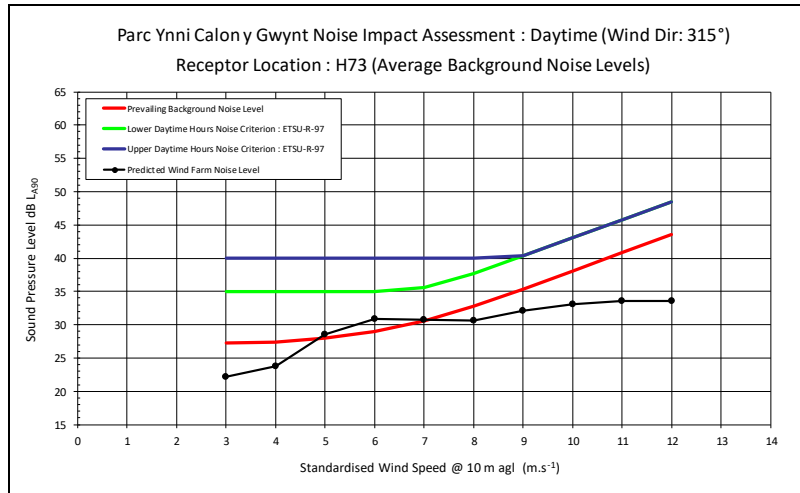


Plate 11M.73: Daytime Assessment at H73

Plates 11.M.73 – 11.M.74 detail the predicted L_{A90} noise levels for the receptor known as H73 during the daytime and night-time periods, for a downwind 315° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.74 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.75 details the predicted compliance with the ETSU-R-97 noise criteria.

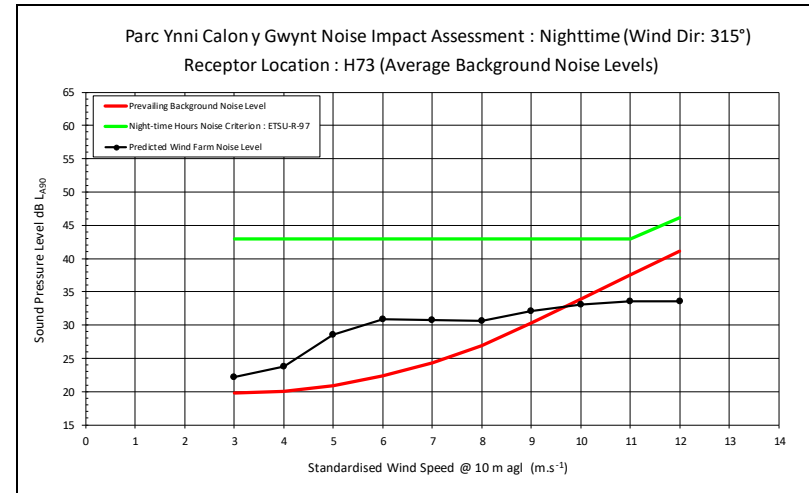


Plate 11M.74: Night-time Assessment at H73

Table 11M.74: Predicted Calon y Gwynt Noise Level – H73

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	23.7	28.5	30.7	30.6	30.5	32.1	32.7	33.5	33.5
45°	23.5	28.3	31.3	31.2	31.0	32.5	32.8	33.3	33.3
90°	20.4	25.2	28.8	28.6	28.6	29.8	30.1	30.2	30.2
135°	16.4	21.2	25.3	25.5	25.3	25.8	26.2	26.2	26.2
180°	16.3	21.1	25.2	25.2	25.2	25.6	26.0	26.1	26.1
225°	20.2	25.0	29.0	28.6	28.6	29.4	29.7	30.0	30.0
270°	23.3	28.1	30.9	30.8	30.8	32.1	32.4	33.1	33.1
315°	23.7	28.5	30.9	30.7	30.7	32.1	33.1	33.5	33.5
Worst	23.7	28.5	31.3	31.2	31.0	32.5	33.1	33.5	33.5
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5



Table 11M.75: Predicted Compliance – H73

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	23.7	28.5	31.3	31.2	31.0	32.5	33.1	33.5	33.5
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-16.3	-11.5	-8.7	-8.8	-9.0	-7.9	-10.0	-12.3	-15.0
Predicted Compliance of Worst Direction – Night-time	-19.3	-14.5	-11.7	-11.8	-12.0	-10.5	-9.9	-9.5	-12.6

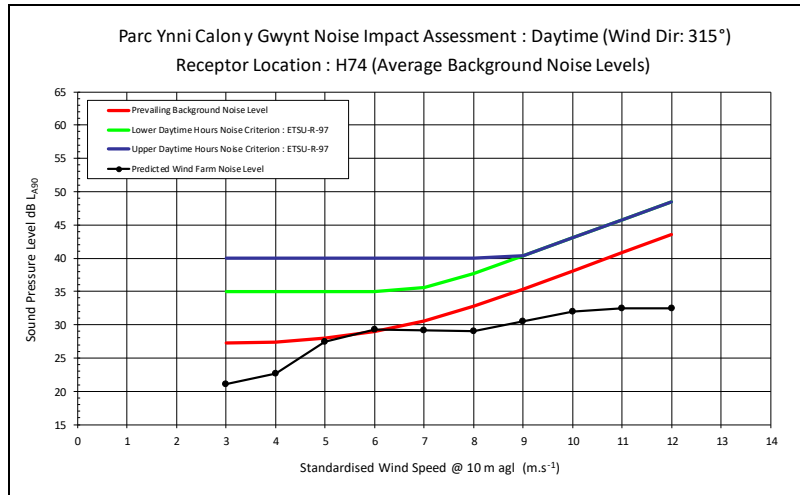


Plate 11M.75: Daytime Assessment at H74

Plates 11.M.75 – 11.M.76 detail the predicted L_{A90} noise levels for the receptor known as H74 during the daytime and night-time periods, for a downwind 315° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.76 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.77 details the predicted compliance with the ETSU-R-97 noise criteria.

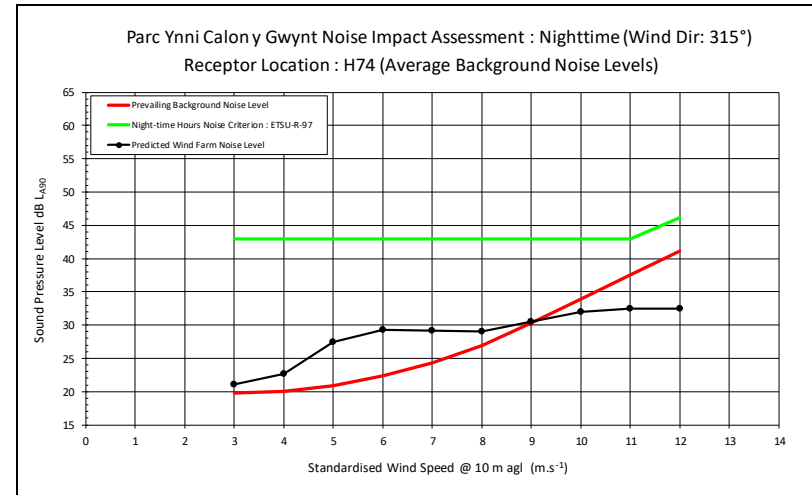


Plate 11M.76: Night-time Assessment at H74

Table 11M.76: Predicted Calon y Gwynt Noise Level – H74

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	22.7	27.5	29.1	28.9	28.8	30.5	31.4	32.5	32.5
45°	21.6	26.4	28.8	28.6	28.5	30.3	30.7	31.4	31.4
90°	17.4	22.2	25.7	25.5	25.5	26.9	27.2	27.2	27.2
135°	15.0	19.8	24.0	24.3	23.9	24.5	24.8	24.8	24.8
180°	16.9	21.7	25.9	25.6	25.6	26.2	26.5	26.7	26.7
225°	21.2	26.0	29.7	29.2	29.2	30.0	30.3	31.0	31.0
270°	22.7	27.5	29.7	29.6	29.6	31.0	31.4	32.5	32.5
315°	22.7	27.5	29.3	29.1	29.0	30.6	32.0	32.5	32.5
Worst	22.7	27.5	29.7	29.6	29.6	31.0	32.0	32.5	32.5
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5



Table 11M.77: Predicted Compliance – H74

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	22.7	27.5	29.7	29.6	29.6	31.0	32.0	32.5	32.5
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-17.3	-12.5	-10.3	-10.4	-10.4	-9.4	-11.1	-13.3	-16.0
Predicted Compliance of Worst Direction – Night-time	-20.3	-15.5	-13.3	-13.4	-13.4	-12.0	-11.0	-10.5	-13.6

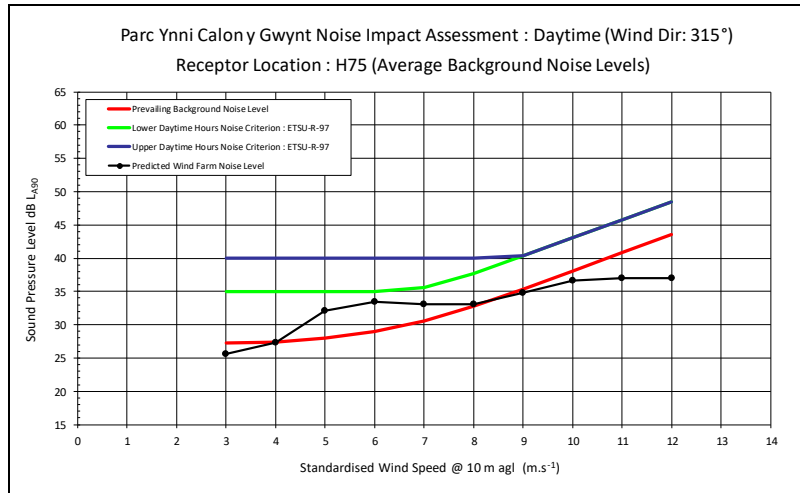


Plate 11M.77: Daytime Assessment at H75

Plates 11.M.77 – 11.M.78 detail the predicted L_{A90} noise levels for the receptor known as H75 during the daytime and night-time periods, for a downwind 315° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.78 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.79 details the predicted compliance with the ETSU-R-97 noise criteria.

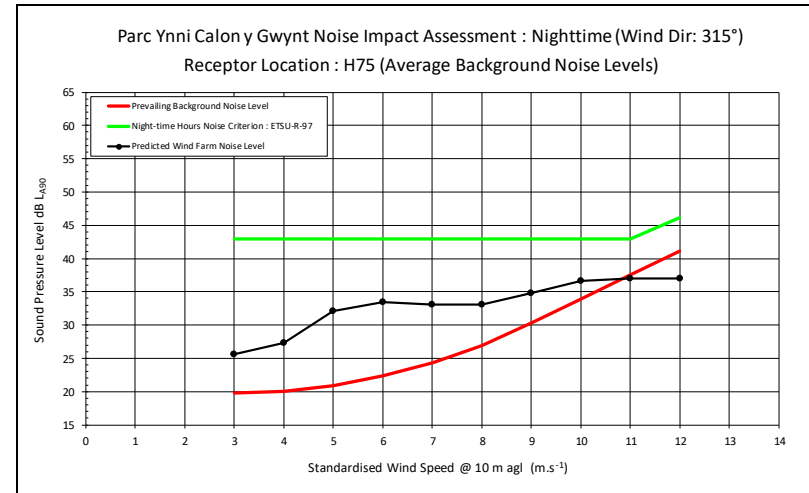


Plate 11M.78: Night-time Assessment at H75

Table 11M.78: Predicted Calon y Gwynt Noise Level – H75

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	27.3	32.1	33.3	32.9	32.8	34.8	35.8	37.1	37.1
45°	26.6	31.4	33.3	33.0	32.9	35.0	35.6	36.4	36.4
90°	24.4	29.2	32.4	31.8	31.8	33.9	34.1	34.2	34.2
135°	22.0	26.8	31.1	31.4	30.8	31.7	31.8	31.8	31.8
180°	22.6	27.4	31.7	31.3	31.3	32.1	32.2	32.4	32.4
225°	25.5	30.3	33.9	33.3	33.3	34.3	34.4	35.3	35.3
270°	27.3	32.1	33.9	33.7	33.7	35.4	35.9	37.1	37.1
315°	27.3	32.1	33.5	33.1	33.0	34.8	36.6	37.1	37.1
Worst	27.3	32.1	33.9	33.7	33.7	35.4	36.6	37.1	37.1
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5



Table 11M.79: Predicted Compliance – H75

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	27.3	32.1	33.9	33.7	33.7	35.4	36.6	37.1	37.1
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-12.7	-7.9	-6.1	-6.3	-6.3	-5.0	-6.5	-8.7	-11.4
Predicted Compliance of Worst Direction – Night-time	-15.7	-10.9	-9.1	-9.3	-9.3	-7.6	-6.4	-5.9	-9.0

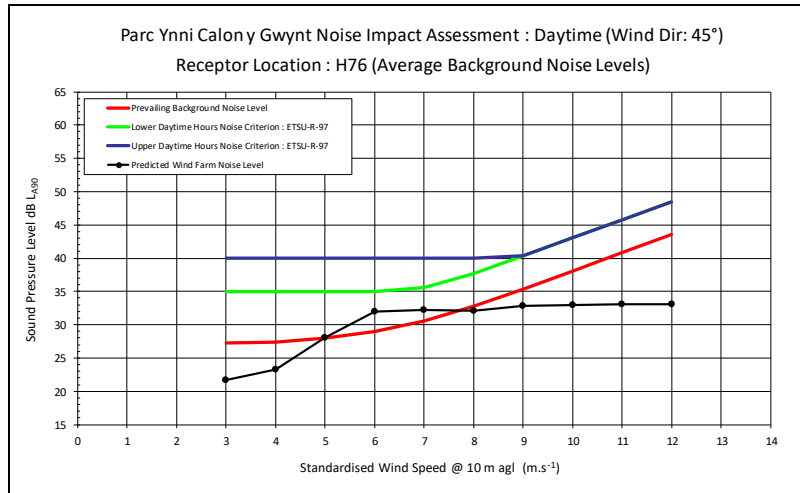


Plate 11M.79: Daytime Assessment at H76

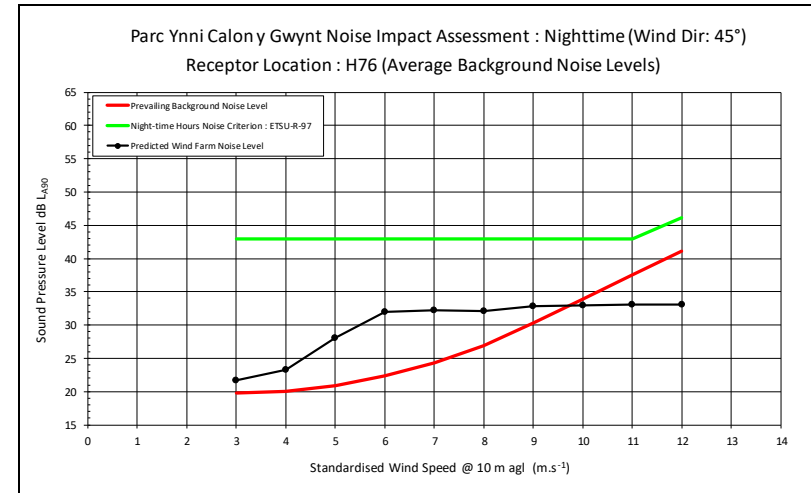


Plate 11M.80: Night-time Assessment at H76

Plates 11.M.79 – 11.M.80 detail the predicted L_{A90} noise levels for the receptor known as H76 during the daytime and night-time periods, for a downwind 45° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.80 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.81 details the predicted compliance with the ETSU-R-97 noise criteria.

Table 11M.80: Predicted Calon y Gwynt Noise Level – H76

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	23.3	28.1	31.2	31.0	30.7	32.4	32.7	33.1	33.1
45°	23.3	28.1	32.0	32.2	32.1	32.8	32.9	33.1	33.1
90°	22.4	27.2	31.2	31.5	31.5	31.8	32.1	32.2	32.2
135°	19.0	23.8	28.0	28.4	28.3	28.6	28.8	28.8	28.8
180°	15.6	20.4	24.5	24.6	24.6	24.9	25.2	25.4	25.4
225°	16.5	21.3	25.5	25.6	25.6	25.9	26.1	26.3	26.3
270°	20.4	25.2	29.1	29.4	29.4	30.0	30.1	30.2	30.2
315°	23.0	27.8	31.3	31.0	31.0	32.4	32.6	32.8	32.8
Worst	23.3	28.1	32.0	32.2	32.1	32.8	32.9	33.1	33.1
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5



Table 11M.81: Predicted Compliance – H76

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	23.3	28.1	32.0	32.2	32.1	32.8	32.9	33.1	33.1
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-16.7	-11.9	-8.0	-7.8	-7.9	-7.6	-10.2	-12.7	-15.4
Predicted Compliance of Worst Direction – Night-time	-19.7	-14.9	-11.0	-10.8	-10.9	-10.2	-10.1	-9.9	-13.0

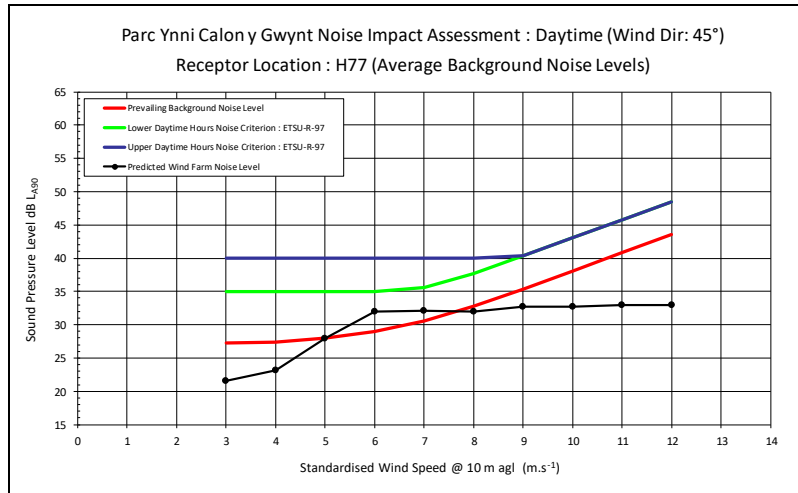


Plate 11M.81: Daytime Assessment at H77

Plates 11.M.81 – 11.M.82 detail the predicted L_{A90} noise levels for the receptor known as H77 during the daytime and night-time periods, for a downwind 45° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.82 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.83 details the predicted compliance with the ETSU-R-97 noise criteria.

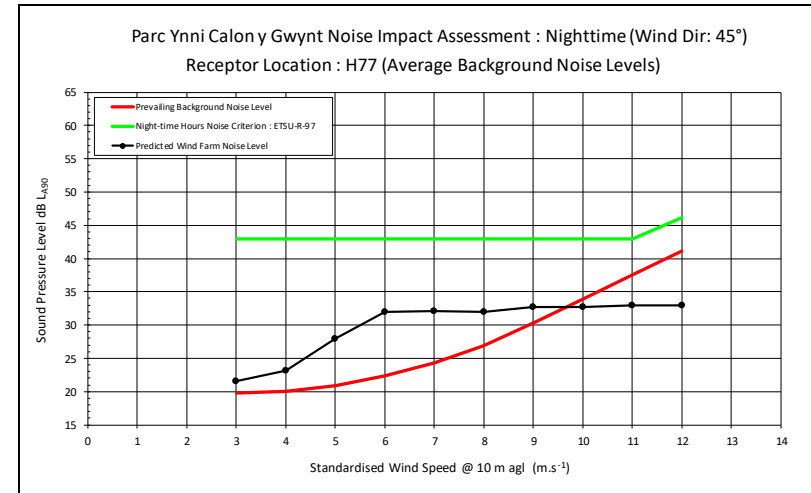


Plate 11M.82: Night-time Assessment at H77

Table 11M.82: Predicted Calon y Gwynt Noise Level – H77

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	23.1	27.9	31.1	31.0	30.7	32.3	32.6	32.9	32.9
45°	23.1	27.9	31.9	32.1	32.0	32.7	32.8	32.9	32.9
90°	22.3	27.1	31.1	31.4	31.4	31.7	32.0	32.1	32.1
135°	19.2	24.0	28.3	28.7	28.6	28.8	29.0	29.0	29.0
180°	15.5	20.3	24.5	24.6	24.6	24.9	25.2	25.3	25.3
225°	15.9	20.7	24.9	25.0	25.0	25.4	25.6	25.7	25.7
270°	20.1	24.9	28.9	29.2	29.2	29.7	29.8	29.9	29.9
315°	22.9	27.7	31.2	31.0	31.0	32.3	32.5	32.7	32.7
Worst	23.1	27.9	31.9	32.1	32.0	32.7	32.8	32.9	32.9
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5



Table 11M.83: Predicted Compliance – H77

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	23.1	27.9	31.9	32.1	32.0	32.7	32.8	32.9	32.9
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-16.9	-12.1	-8.1	-7.9	-8.0	-7.7	-10.3	-12.9	-15.6
Predicted Compliance of Worst Direction – Night-time	-19.9	-15.1	-11.1	-10.9	-11.0	-10.3	-10.2	-10.1	-13.2

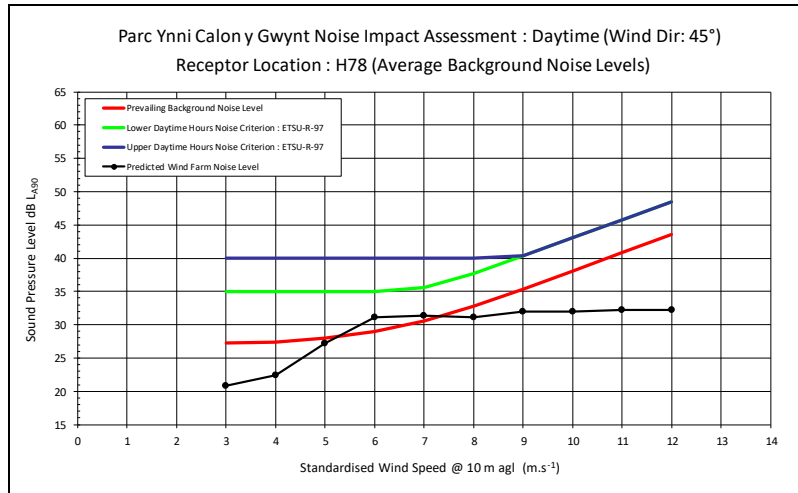


Plate 11M.83: Daytime Assessment at H78

Plates 11.M.83 – 11.M.84 detail the predicted L_{A90} noise levels for the receptor known as H78 during the daytime and night-time periods, for a downwind 45° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.84 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.85 details the predicted compliance with the ETSU-R-97 noise criteria.

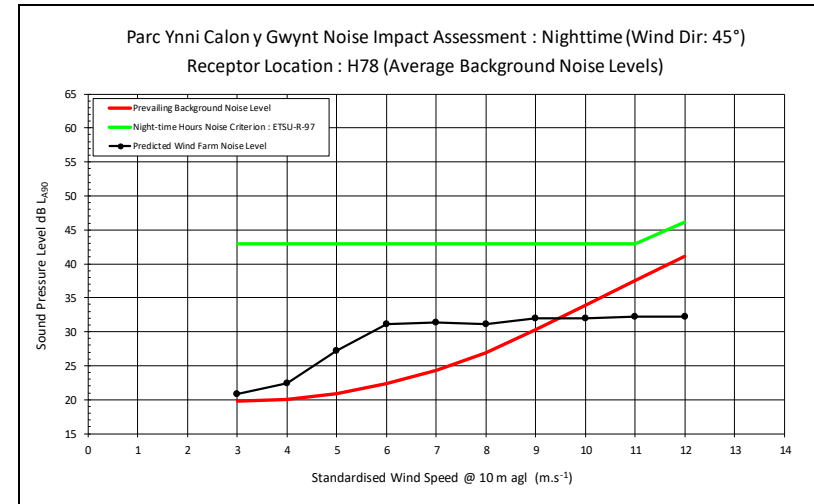


Plate 11M.84: Night-time Assessment at H78

Table 11M.84: Predicted Calon y Gwynt Noise Level – H78

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	22.4	27.2	30.3	30.1	29.9	31.6	31.9	32.2	32.2
45°	22.4	27.2	31.2	31.3	31.2	31.9	32.0	32.2	32.2
90°	21.5	26.3	30.4	30.7	30.7	31.0	31.3	31.3	31.3
135°	18.2	23.0	27.3	27.7	27.6	27.8	28.0	28.0	28.0
180°	14.7	19.5	23.6	23.7	23.7	24.0	24.3	24.5	24.5
225°	15.4	20.2	24.3	24.4	24.4	24.8	25.0	25.2	25.2
270°	19.5	24.3	28.1	28.4	28.4	29.1	29.2	29.3	29.3
315°	22.2	27.0	30.4	30.1	30.1	31.5	31.8	32.0	32.0
Worst	22.4	27.2	31.2	31.3	31.2	31.9	32.0	32.2	32.2
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5

Table 11M.85: Predicted Compliance – H78

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	22.4	27.2	31.2	31.3	31.2	31.9	32.0	32.2	32.2
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-17.6	-12.8	-8.8	-8.7	-8.8	-8.5	-11.1	-13.6	-16.3
Predicted Compliance of Worst Direction – Night-time	-20.6	-15.8	-11.8	-11.7	-11.8	-11.1	-11.0	-10.8	-13.9

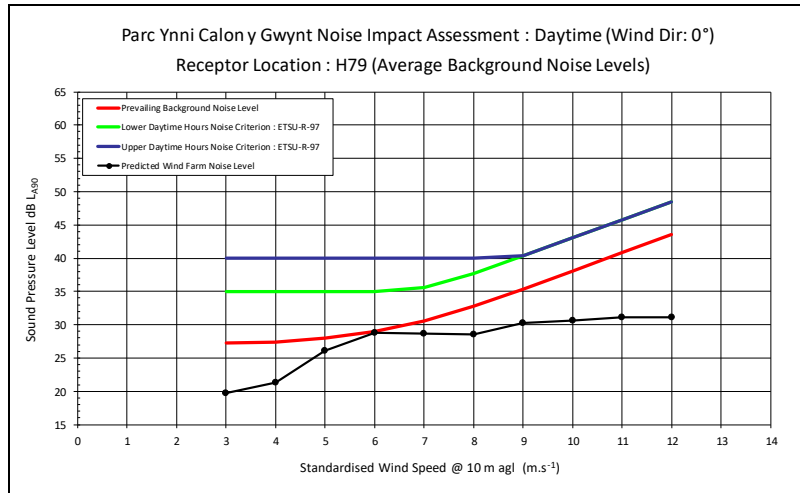


Plate 11M.85: Daytime Assessment at H79

Plates 11.M.85 – 11.M.86 detail the predicted L_{A90} noise levels for the receptor known as H79 during the daytime and night-time periods, for a downwind 0° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.86 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.87 details the predicted compliance with the ETSU-R-97 noise criteria.

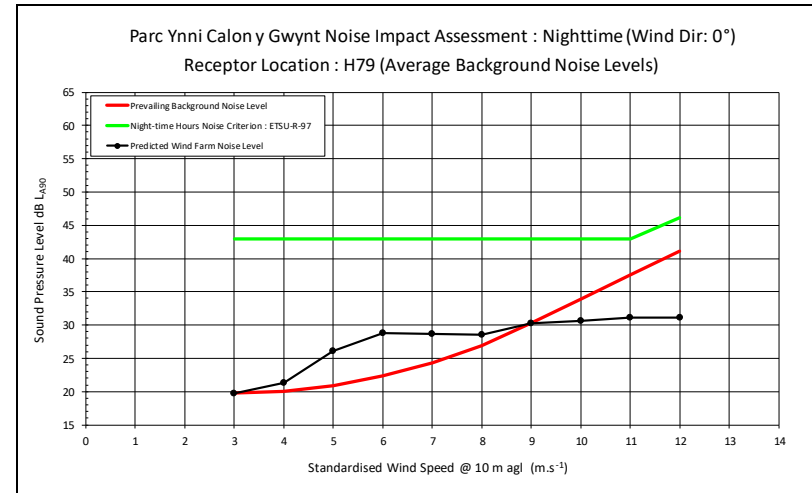


Plate 11M.86: Night-time Assessment at H79

Table 11M.86: Predicted Calon y Gwynt Noise Level – H79

Wind Direction ($^\circ$)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	21.3	26.1	28.8	28.7	28.5	30.2	30.6	31.1	31.1
45°	21.3	26.1	29.9	29.9	29.8	30.7	30.9	31.1	31.1
90°	19.7	24.5	28.4	28.5	28.5	29.1	29.4	29.5	29.5
135°	15.8	20.6	24.8	25.1	24.9	25.3	25.6	25.6	25.6
180°	13.5	18.3	22.5	22.5	22.5	22.8	23.2	23.3	23.3
225°	15.8	20.6	24.8	24.8	24.8	25.2	25.4	25.6	25.6
270°	19.9	24.7	28.3	28.5	28.5	29.3	29.4	29.7	29.7
315°	21.3	26.1	29.1	28.8	28.8	30.3	30.8	31.1	31.1
Worst	21.3	26.1	29.9	29.9	29.8	30.7	30.9	31.1	31.1
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5

Table 11M.87: Predicted Compliance – H79

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	21.3	26.1	29.9	29.9	29.8	30.7	30.9	31.1	31.1
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-18.7	-13.9	-10.1	-10.1	-10.2	-9.7	-12.2	-14.7	-17.4
Predicted Compliance of Worst Direction – Night-time	-21.7	-16.9	-13.1	-13.1	-13.2	-12.3	-12.1	-11.9	-15.0

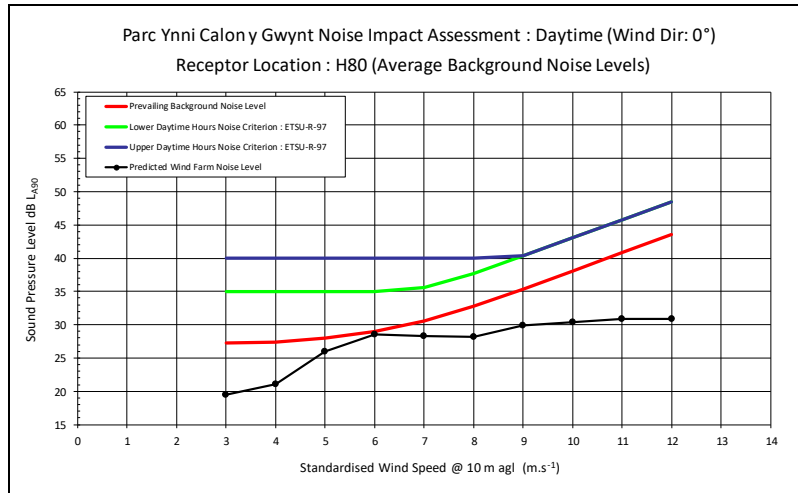


Plate 11M.87: Daytime Assessment at H80

Plates 11.M.87 – 11.M.88 detail the predicted L_{A90} noise levels for the receptor known as H80 during the daytime and night-time periods, for a downwind 0° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.88 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.89 details the predicted compliance with the ETSU-R-97 noise criteria.

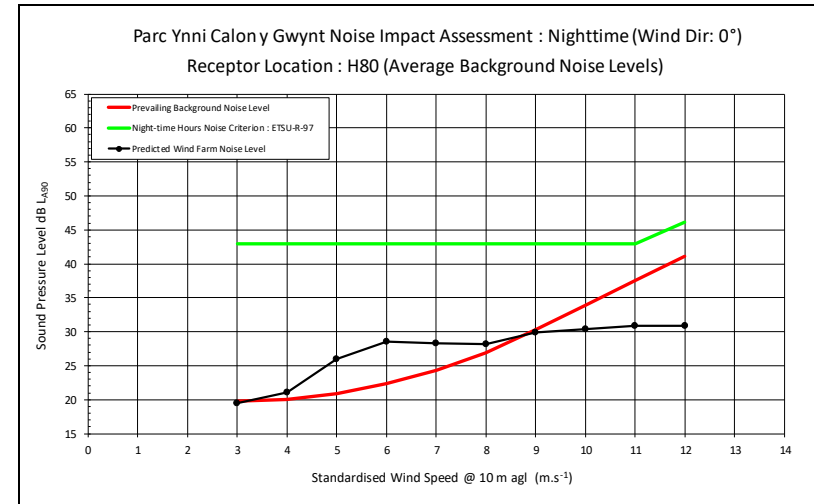


Plate 11M.88: Night-time Assessment at H80

Table 11M.88: Predicted Calon y Gwynt Noise Level – H80

Wind Direction ($^\circ$)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	21.1	25.9	28.5	28.4	28.2	29.9	30.4	30.9	30.9
45°	21.1	25.9	29.6	29.6	29.4	30.5	30.6	30.9	30.9
90°	19.0	23.8	27.7	27.8	27.8	28.4	28.8	28.8	28.8
135°	15.1	19.9	24.1	24.5	24.3	24.7	24.9	24.9	24.9
180°	13.4	18.2	22.3	22.3	22.3	22.7	23.0	23.2	23.2
225°	16.1	20.9	25.1	25.0	25.0	25.5	25.7	25.9	25.9
270°	19.8	24.6	28.1	28.3	28.3	29.2	29.3	29.6	29.6
315°	21.1	25.9	28.8	28.5	28.5	30.0	30.6	30.9	30.9
Worst	21.1	25.9	29.6	29.6	29.4	30.5	30.6	30.9	30.9
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5

Table 11M.89: Predicted Compliance – H80

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	21.1	25.9	29.6	29.6	29.4	30.5	30.6	30.9	30.9
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-18.9	-14.1	-10.4	-10.4	-10.6	-9.9	-12.5	-14.9	-17.6
Predicted Compliance of Worst Direction – Night-time	-21.9	-17.1	-13.4	-13.4	-13.6	-12.5	-12.4	-12.1	-15.2

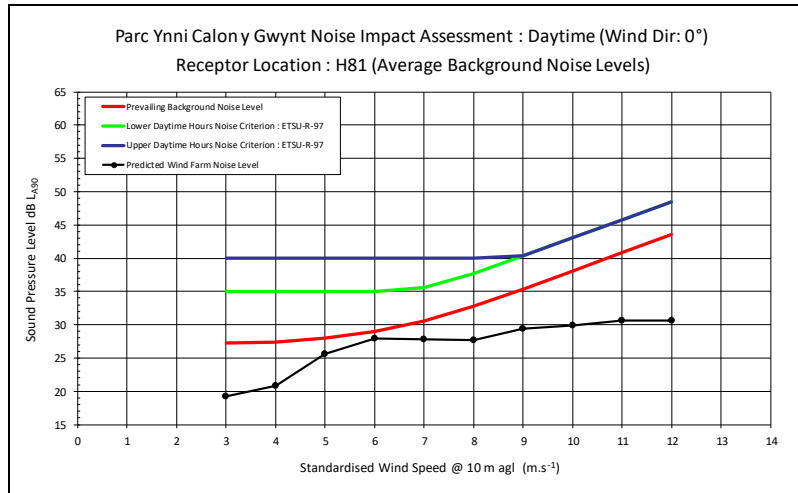


Plate 11M.89: Daytime Assessment at H81

Plates 11.M.89 – 11.M.90 detail the predicted L_{A90} noise levels for the receptor known as H81 during the daytime and night-time periods, for a downwind 0° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.90 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.91 details the predicted compliance with the ETSU-R-97 noise criteria.

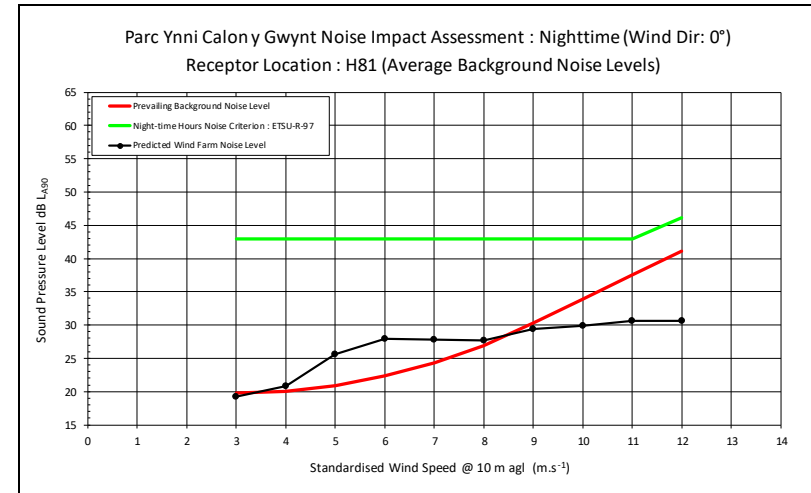


Plate 11M.90: Night-time Assessment at H81

Table 11M.90: Predicted Calon y Gwynt Noise Level – H81

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	20.8	25.6	27.9	27.8	27.6	29.4	29.9	30.6	30.6
45°	20.8	25.6	29.0	29.0	28.8	30.0	30.2	30.6	30.6
90°	18.7	23.5	27.3	27.3	27.3	28.2	28.5	28.5	28.5
135°	14.4	19.2	23.4	23.8	23.6	24.0	24.2	24.2	24.2
180°	13.2	18.0	22.1	22.1	22.1	22.5	22.8	23.0	23.0
225°	16.4	21.2	25.2	25.1	25.1	25.6	25.9	26.2	26.2
270°	20.0	24.8	27.9	28.0	28.0	29.2	29.4	29.8	29.8
315°	20.8	25.6	28.2	27.9	27.9	29.4	30.1	30.6	30.6
Worst	20.8	25.6	29.0	29.0	28.8	30.0	30.2	30.6	30.6
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5



Table 11M.91: Predicted Compliance – H81

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	20.8	25.6	29.0	29.0	28.8	30.0	30.2	30.6	30.6
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-19.2	-14.4	-11.0	-11.0	-11.2	-10.4	-12.9	-15.2	-17.9
Predicted Compliance of Worst Direction – Night-time	-22.2	-17.4	-14.0	-14.0	-14.2	-13.0	-12.8	-12.4	-15.5

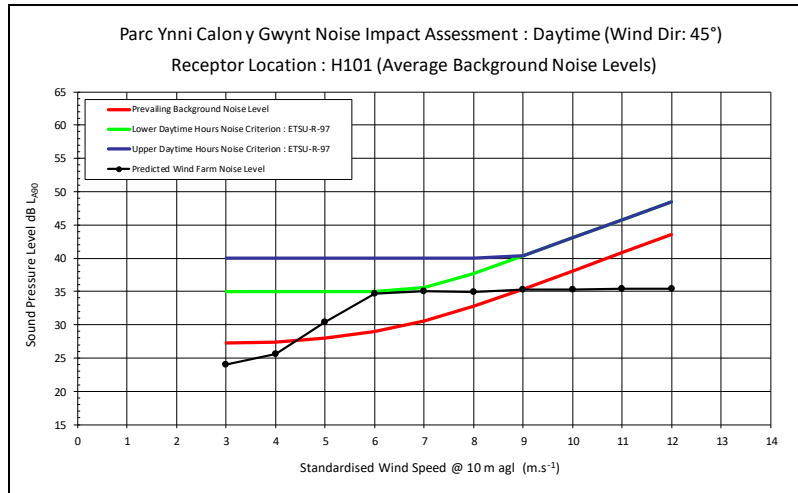


Plate 11M.91: Daytime Assessment at H101

Plates 11.M.91 – 11.M.92 detail the predicted L_{A90} noise levels for the receptor known as H101 during the daytime and night-time periods, for a downwind 45° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.92 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.93 details the predicted compliance with the ETSU-R-97 noise criteria.

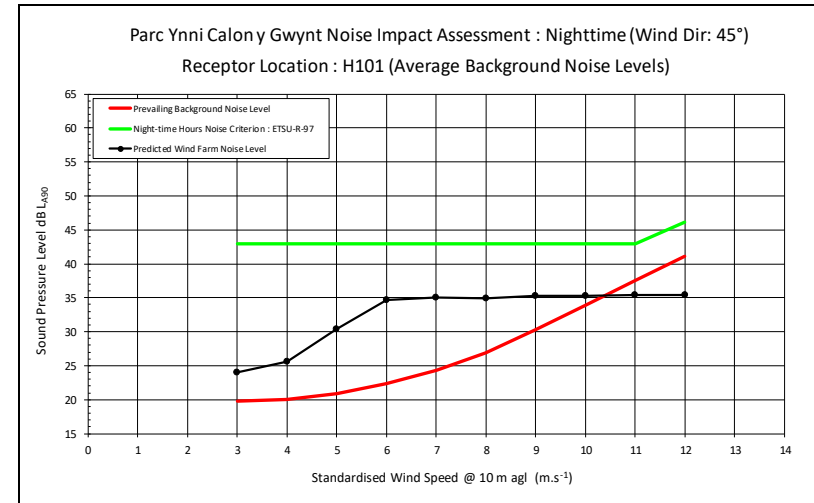


Plate 11M.92: Night-time Assessment at H101

Table 11M.92: Predicted Calon y Gwynt Noise Level – H101

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	25.6	30.4	34.2	34.2	33.9	35.1	35.2	35.4	35.4
45°	25.6	30.4	34.6	35.0	34.9	35.3	35.3	35.4	35.4
90°	25.6	30.4	34.4	34.7	34.7	34.8	35.4	35.4	35.4
135°	23.9	28.7	32.9	33.3	33.3	33.5	33.7	33.7	33.7
180°	20.9	25.7	29.9	30.3	30.3	30.4	30.6	30.7	30.7
225°	18.7	23.5	27.8	28.1	28.1	28.3	28.4	28.5	28.5
270°	20.4	25.2	29.4	29.9	29.9	30.1	30.2	30.2	30.2
315°	23.7	28.5	32.6	32.6	32.6	33.4	33.5	33.5	33.5
Worst	25.6	30.4	34.6	35.0	34.9	35.3	35.4	35.4	35.4
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5



Table 11M.93: Predicted Compliance – H101

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	25.6	30.4	34.6	35.0	34.9	35.3	35.4	35.4	35.4
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-14.4	-9.6	-5.4	-5.0	-5.1	-5.1	-7.7	-10.4	-13.1
Predicted Compliance of Worst Direction – Night-time	-17.4	-12.6	-8.4	-8.0	-8.1	-7.7	-7.6	-7.6	-10.7

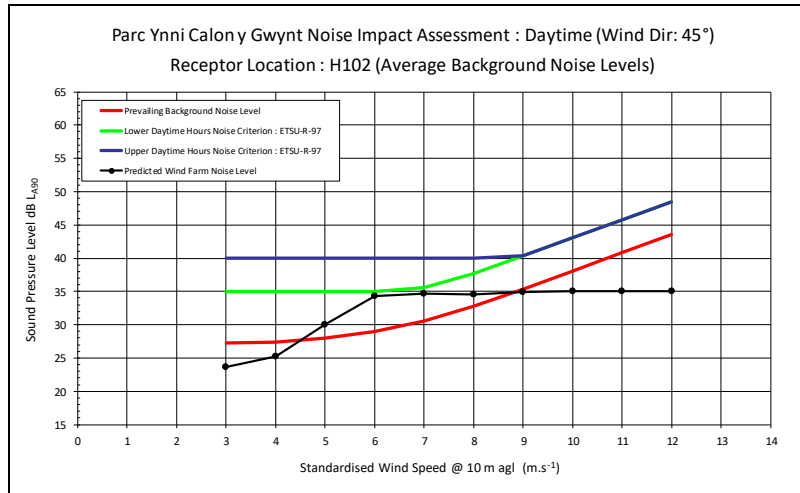


Plate 11M.93: Daytime Assessment at H102

Plates 11.M.93 – 11.M.94 detail the predicted L_{A90} noise levels for the receptor known as H102 during the daytime and night-time periods, for a downwind 45° wind direction. The predicted levels indicate that noise from the proposed wind farm will meet the Lower Daytime Hours and Night-time Hours Noise Criteria proposed by ETSU-R-97.

Table 11.M.94 details the predicted L_{A90} noise levels for other wind directions.

Table 11.M.95 details the predicted compliance with the ETSU-R-97 noise criteria.

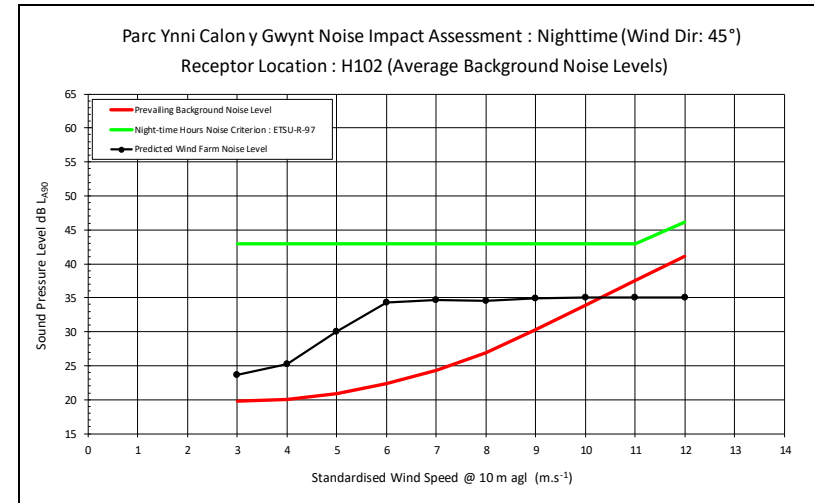


Plate 11M.94: Night-time Assessment at H102

Table 11M.94: Predicted Calon y Gwynt Noise Level – H102

Wind Direction (°)	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
0°	25.3	30.1	33.9	33.8	33.6	34.8	34.9	35.1	35.1
45°	25.3	30.1	34.3	34.7	34.6	35.0	35.0	35.1	35.1
90°	25.3	30.1	34.0	34.3	34.3	34.5	35.0	35.1	35.1
135°	24.4	29.2	33.4	33.8	33.7	33.9	34.2	34.2	34.2
180°	20.7	25.5	29.7	30.0	30.0	30.2	30.4	30.5	30.5
225°	18.1	22.9	27.2	27.4	27.4	27.7	27.8	27.9	27.9
270°	19.6	24.4	28.5	29.0	29.0	29.3	29.3	29.4	29.4
315°	23.5	28.3	32.4	32.4	32.4	33.2	33.3	33.3	33.3
Worst	25.3	30.1	34.3	34.7	34.6	35.0	35.0	35.1	35.1
Upper Limit	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5



Table 11M.95: Predicted Compliance – H102

	Standardised 10m Wind Speed (m/s)								
	4	5	6	7	8	9	10	11	12
Predicted Wind Farm Noise Level – Worst Direction	25.3	30.1	34.3	34.7	34.6	35.0	35.0	35.1	35.1
Upper Daytime Hours ETSU-R-97 Noise Criterion	40.0	40.0	40.0	40.0	40.0	40.4	43.1	45.8	48.5
Night-time Hours ETSU-R-97 Noise Criterion	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	46.1
Predicted Compliance of Worst Direction – Daytime	-14.7	-9.9	-5.7	-5.3	-5.4	-5.4	-8.1	-10.7	-13.4
Predicted Compliance of Worst Direction – Night-time	-17.7	-12.9	-8.7	-8.3	-8.4	-8.0	-8.0	-7.9	-11.0

Table 11M.96: Predicted Parc Ynni Calon y Gwynt Wind Farm Noise Levels (dB L_{A90})

Receptor	Easting	Northing	Standardised 10m Wind Speed (m/s)								
			4	5	6	7	8	9	10	11	12
H1	301269	296692	28.8	33.6	35.7	35.7	35.7	37.1	38.1	38.6	38.6
H2	301010	296630	27.3	32.1	34.9	34.6	34.4	36.1	36.6	37.1	37.1
H3	301049	297366	36.1	40.9	44.3	43.9	43.9	44.6	44.7	45.9	45.9
H4	301127	297083	32.6	37.4	39.5	39.1	39.1	40.7	41.7	42.4	42.4
H6	301711	299455	28.2	33.0	36.8	36.9	36.9	37.3	37.8	38.0	38.0
H7	302502	300262	20.6	25.4	29.0	29.0	29.0	29.6	30.3	30.4	30.4
H8	302284	300681	20.9	25.7	29.3	29.3	29.3	29.8	30.6	30.7	30.7
H17	301826	301242	20.5	25.3	28.8	28.7	28.7	29.2	30.2	30.3	30.3
H18	301788	301233	20.6	25.4	28.9	28.8	28.8	29.3	30.3	30.4	30.4
H19	300923	301354	21.4	26.2	29.8	29.6	29.5	30.2	31.2	31.2	31.2
H20	301152	301175	21.6	26.4	29.9	29.7	29.7	30.3	31.3	31.4	31.4
H44	298217	300569	20.4	25.2	29.0	29.0	29.0	29.4	30.2	30.2	30.2
H46	298097	300174	21.3	26.1	29.9	29.9	29.9	30.3	31.1	31.1	31.1
H47	298469	298621	29.9	34.7	38.9	39.3	39.3	39.5	39.7	39.7	39.7
H51	297723	299028	22.8	27.6	31.6	32.0	32.0	32.3	32.6	32.6	32.6
H52	297131	298711	20.3	25.1	29.3	29.7	29.6	30.0	30.1	30.1	30.1
H53	298901	297217	29.9	34.7	39.0	39.4	39.3	39.6	39.7	39.7	39.7
H54	298971	297026	28.8	33.6	37.9	38.3	38.2	38.5	38.6	38.6	38.6
H55	298627	297185	27.8	32.6	36.9	37.3	37.3	37.5	37.6	37.6	37.6
H56	299218	296794	27.3	32.1	36.3	36.6	36.5	37.0	37.0	37.1	37.1
H57	299264	296777	27.3	32.1	36.3	36.5	36.5	37.0	37.0	37.1	37.1
H58	298700	296414	23.9	28.7	32.9	33.2	33.1	33.6	33.7	33.7	33.7
H59	298538	296465	23.7	28.5	32.7	33.0	32.9	33.4	33.5	33.5	33.5
H60	298304	296546	23.2	28.0	32.2	32.5	32.5	32.9	33.0	33.0	33.0
H61	298097	296557	22.6	27.4	31.5	31.9	31.8	32.2	32.4	32.4	32.4
H62	298035	296500	22.1	26.9	31.1	31.4	31.4	31.8	31.9	31.9	31.9
H63	300034	296483	26.7	31.5	35.3	35.3	35.1	36.1	36.3	36.5	36.5
H64	300099	296439	26.5	31.3	35.1	35.1	34.9	35.9	36.1	36.3	36.3
H65	300269	296353	25.7	30.5	34.2	34.2	34.0	35.1	35.2	35.5	35.5
H66	300739	296100	23.8	28.6	31.5	31.4	31.2	32.6	33.1	33.6	33.6
H67	300974	295857	22.4	27.2	30.1	30.0	29.8	31.2	31.8	32.2	32.2
H68	301173	296202	24.9	29.7	32.3	32.1	32.0	33.5	34.1	34.7	34.7
H69	301144	296332	25.7	30.5	33.1	33.0	32.8	34.4	34.9	35.5	35.5
H70	301501	296428	25.1	29.9	31.6	31.5	31.5	33.0	34.3	34.9	34.9
H71	301527	296182	24.2	29.0	31.2	31.2	31.2	32.6	33.5	34.0	34.0
H72	301443	296113	24.1	28.9	31.5	31.3	31.2	32.7	33.4	33.9	33.9
H73	301429	296007	23.7	28.5	31.3	31.2	31.0	32.5	33.1	33.5	33.5
H74	302191	296489	22.7	27.5	29.7	29.6	29.6	31.0	32.0	32.5	32.5

Receptor	Easting	Northing	Standardised 10m Wind Speed (m/s)								
			4	5	6	7	8	9	10	11	12
H75	301625	296769	27.3	32.1	33.9	33.7	33.7	35.4	36.6	37.1	37.1
H76	299500	296023	23.3	28.1	32.0	32.2	32.1	32.8	32.9	33.1	33.1
H77	299266	295998	23.1	27.9	31.9	32.1	32.0	32.7	32.8	32.9	32.9
H78	299376	295807	22.4	27.2	31.2	31.3	31.2	31.9	32.0	32.2	32.2
H79	300217	295446	21.3	26.1	29.9	29.9	29.8	30.7	30.9	31.1	31.1
H80	300492	295412	21.1	25.9	29.6	29.6	29.4	30.5	30.6	30.9	30.9
H81	300850	295314	20.8	25.6	29.0	29.0	28.8	30.0	30.2	30.6	30.6
H101	298444	296934	25.6	30.4	34.6	35.0	34.9	35.3	35.4	35.4	35.4
H102	298324	296979	25.3	30.1	34.3	34.7	34.6	35.0	35.0	35.1	35.1



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