

ATTACHMENT A
Transition Stages Noise Impact Assessment Figures (T1-T4)

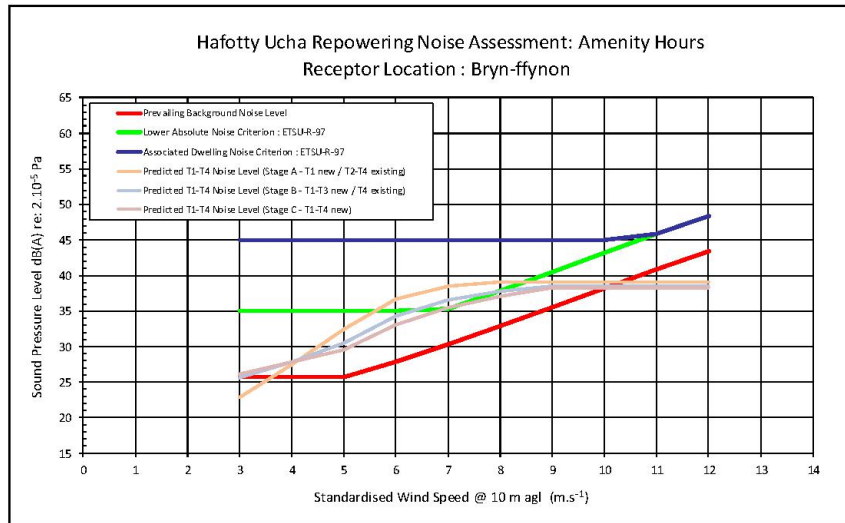


Figure A.1 – Transition Stage Assessment at Bryn-ffynon (Daytime)

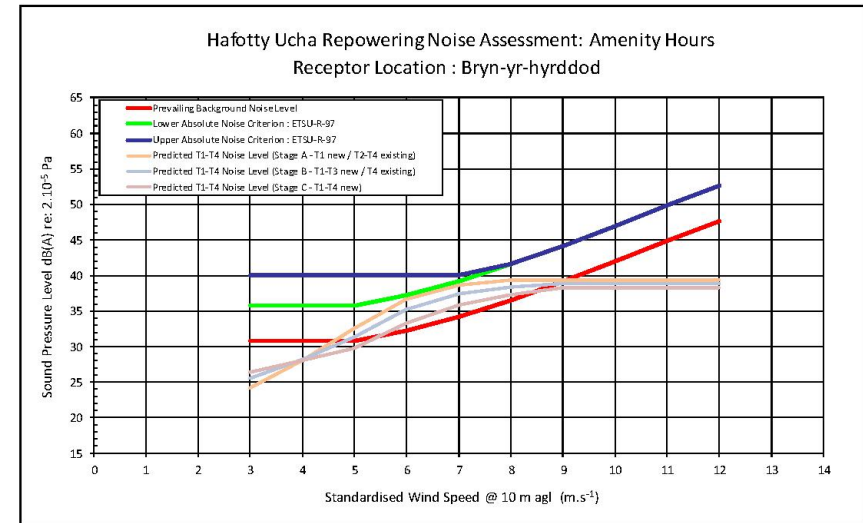


Figure A.2 – Transition Stage Assessment at Bryn-yr-hyrdod (Daytime)

Table A.1: Predicted Noise Levels (dB L _{A90}) of Transition Stages (T1-T4), Bryn-ffynon										
Standardised 10m Wind Speed (m.s ⁻¹)	4	5	6	7	8	9	10	11	12	
Prevailing Background Noise Level (dB L _{A90})	25.7	25.7	27.9	30.3	32.9	35.5	38.2	40.9	43.4	
Lower Amenity Hours Noise Criterion (35 dB / Background + 5 dB)	35.0	35.0	35.0	35.3	37.9	40.5	43.2	45.9	48.4	
Associated Dwelling Noise Criterion (45 dB / Background + 5 dB)	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.9	48.4	
STAGE A Predicted T1-T4 Noise Level (T1 new, T2-T4 existing)	27.5	32.4	36.6	38.5	39.1	39.1	39.1	39.1	39.1	
STAGE B Predicted T1-T4 Noise Level (T1-T3 new, T4 existing)	27.8	30.5	34.3	36.5	37.7	38.5	38.5	38.5	38.5	
STAGE C Predicted T1-T4 Noise Level (T1-T4 new)	27.8	29.5	33.0	35.5	37.1	38.2	38.2	38.2	38.2	
Exceedance of Associated Dwelling Noise Criterion (Stage A)	-17.5	-12.6	-8.4	-6.5	-5.9	-5.9	-5.9	-6.8	-9.3	
Exceedance of Associated Dwelling Noise Criterion (Stage B)	-17.2	-14.5	-10.7	-8.5	-7.3	-6.5	-6.5	-7.4	-9.9	
Exceedance of Associated Dwelling Noise Criterion (Stage C)	-17.2	-15.5	-12.0	-9.5	-7.9	-6.8	-6.8	-7.7	-10.2	

Table A.2: Predicted Noise Levels (dB L _{A90}) of Transition Stages (T1-T4), Bryn-yr-hyrdod										
Standardised 10m Wind Speed (m.s ⁻¹)	4	5	6	7	8	9	10	11	12	
Prevailing Background Noise Level (dB L _{A90})	30.8	30.8	32.2	34.2	36.5	39.2	42.0	44.8	47.6	
Lower Amenity Hours Noise Criterion (35 dB / Background + 5 dB)	35.8	35.8	37.2	39.2	41.5	44.2	47.0	49.8	52.6	
Upper Amenity Hours Noise Criterion (40 dB / Background + 5 dB)	40.0	40.0	40.0	40.0	41.5	44.2	47.0	49.8	52.6	
STAGE A Predicted T1-T4 Noise Level (T1 new, T2-T4 existing)	28.1	32.5	36.7	38.7	39.3	39.3	39.3	39.3	39.3	
STAGE B Predicted T1-T4 Noise Level (T1-T3 new, T4 existing)	28.1	31.3	35.2	37.4	38.4	38.8	38.8	38.8	38.8	
STAGE C Predicted T1-T4 Noise Level (T1-T4 new)	28.1	29.8	33.3	35.8	37.3	38.2	38.2	38.2	38.2	
Exceedance of Lower Amenity Hours Noise Criterion (Stage A)	-7.7	-3.2	-0.5	-0.5	-2.3	-4.9	-7.7	-10.5	-13.4	
Exceedance of Lower Amenity Hours Noise Criterion (Stage B)	-7.6	-4.4	-2.0	-1.8	-3.1	-5.4	-8.2	-11.0	-13.8	
Exceedance of Lower Amenity Hours Noise Criterion (Stage C)	-7.7	-6.0	-4.0	-3.4	-4.3	-5.9	-8.7	-11.6	-14.4	

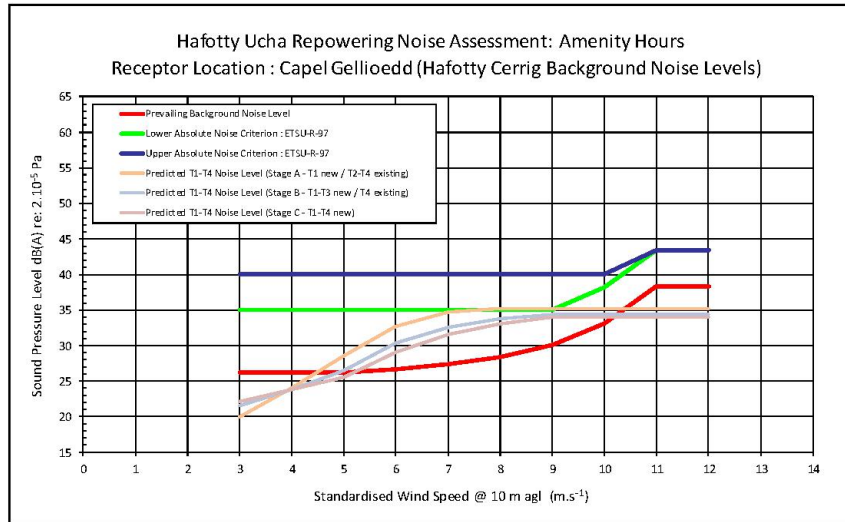


Figure A.3 – Transition Stage Assessment at Capel Gellioedd (Daytime)

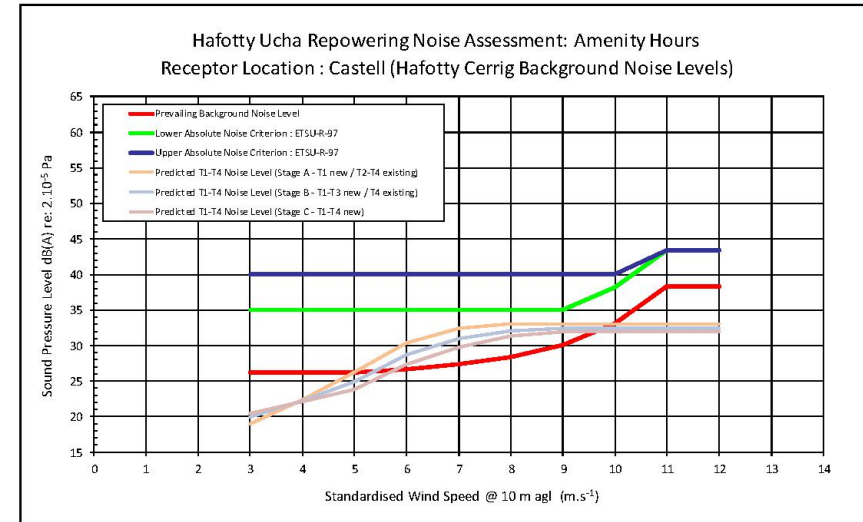


Figure A.4 – Transition Stage Assessment at Castell (Daytime)

Table A.3: Predicted Noise Levels (dB L _{A90}) of Transition Stages (T1-T4), Capel Gellioedd										
Standardised 10m Wind Speed (m.s ⁻¹)	4	5	6	7	8	9	10	11	12	
Prevailing Background Noise Level (dB L _{A90})	26.2	26.2	26.7	27.3	28.3	30.1	33.1	38.3	38.3	
Lower Amenity Hours Noise Criterion (35 dB / Background + 5 dB)	35.0	35.0	35.0	35.0	35.0	35.1	38.1	43.3	43.3	
Upper Amenity Hours Noise Criterion (40 dB / Background + 5 dB)	40.0	40.0	40.0	40.0	40.0	40.0	40.0	43.3	43.3	
STAGE A Predicted T1-T4 Noise Level (T1 new, T2-T4 existing)	24.0	28.5	32.7	34.7	35.3	35.3	35.3	35.3	35.3	
STAGE B Predicted T1-T4 Noise Level (T1-T3 new, T4 existing)	23.8	26.5	30.3	32.6	33.7	34.3	34.3	34.3	34.3	
STAGE C Predicted T1-T4 Noise Level (T1-T4 new)	23.8	25.5	29.0	31.5	33.1	34.0	34.0	34.0	34.0	
Exceedance of Lower Amenity Hours Noise Criterion (Stage A)	-11.0	-6.5	-2.3	-0.3	0.3	0.2	-2.9	-8.1	-8.1	
Exceedance of Lower Amenity Hours Noise Criterion (Stage B)	-11.2	-8.5	-4.7	-2.4	-1.3	-0.7	-3.8	-9.0	-9.0	
Exceedance of Lower Amenity Hours Noise Criterion (Stage C)	-11.2	-9.5	-6.0	-3.5	-1.9	-1.0	-4.1	-9.3	-9.3	

Table A.4: Predicted Noise Levels (dB L _{A90}) of Transition Stages (T1-T4), Castell										
Standardised 10m Wind Speed (m.s ⁻¹)	4	5	6	7	8	9	10	11	12	
Prevailing Background Noise Level (dB L _{A90})	26.2	26.2	26.7	27.3	28.3	30.1	33.1	38.3	38.3	
Lower Amenity Hours Noise Criterion (35 dB / Background + 5 dB)	35.0	35.0	35.0	35.0	35.0	35.1	38.1	43.3	43.3	
Upper Amenity Hours Noise Criterion (40 dB / Background + 5 dB)	40.0	40.0	40.0	40.0	40.0	40.0	40.0	43.3	43.3	
STAGE A Predicted T1-T4 Noise Level (T1 new, T2-T4 existing)	22.3	26.3	30.3	32.4	33.1	33.1	33.1	33.1	33.1	
STAGE B Predicted T1-T4 Noise Level (T1-T3 new, T4 existing)	22.2	24.9	28.7	30.9	32.0	32.4	32.4	32.4	32.4	
STAGE C Predicted T1-T4 Noise Level (T1-T4 new)	22.1	23.8	27.3	29.8	31.3	32.0	32.0	32.0	32.0	
Exceedance of Lower Amenity Hours Noise Criterion (Stage A)	-12.7	-8.7	-4.7	-2.6	-1.9	-2.0	-5.0	-10.2	-10.2	
Exceedance of Lower Amenity Hours Noise Criterion (Stage B)	-12.8	-10.1	-6.3	-4.1	-3.0	-2.6	-5.7	-10.9	-10.9	
Exceedance of Lower Amenity Hours Noise Criterion (Stage C)	-12.9	-11.2	-7.7	-5.2	-3.7	-3.1	-6.1	-11.3	-11.3	

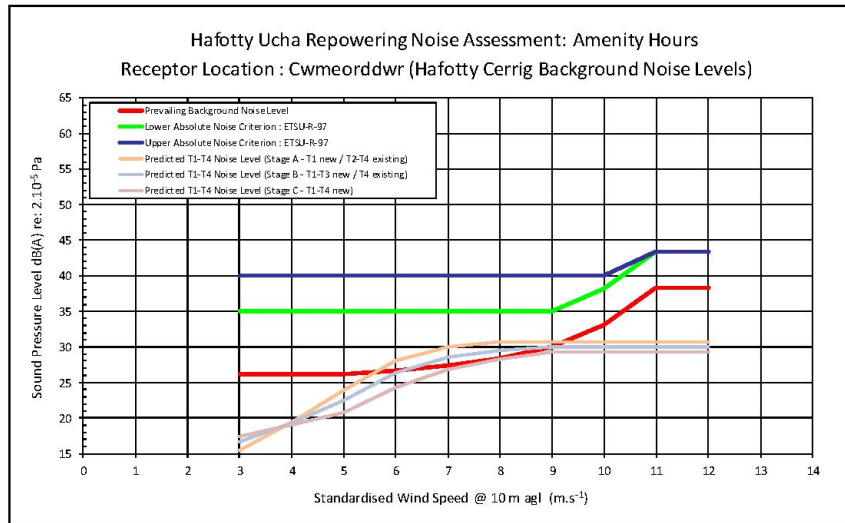


Figure A.5 – Transition Stage Assessment at Cwmeorddwr (Daytime)

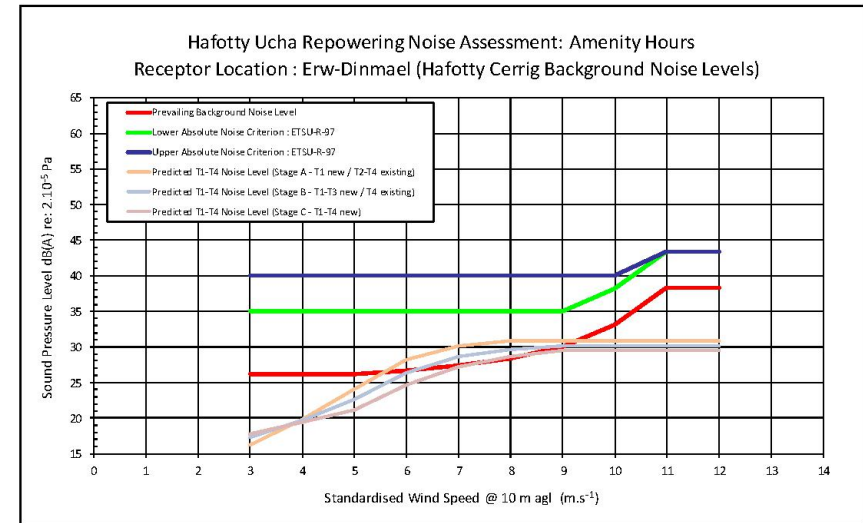


Figure A.6 – Transition Stage Assessment at Erw-Dinmael (Daytime)

Table A.5: Predicted Noise Levels (dB L _{A90}) of Transition Stages (T1-T4), Cwmeorddwr										
Standardised 10m Wind Speed (m.s ⁻¹)	4	5	6	7	8	9	10	11	12	
Prevailing Background Noise Level (dB L _{A90})	26.2	26.2	26.7	27.3	28.3	30.1	33.1	38.3	38.3	
Lower Amenity Hours Noise Criterion (35 dB / Background + 5 dB)	35.0	35.0	35.0	35.0	35.0	35.1	38.1	43.3	43.3	
Upper Amenity Hours Noise Criterion (40 dB / Background + 5 dB)	40.0	40.0	40.0	40.0	40.0	40.0	40.0	43.3	43.3	
STAGE A Predicted T1-T4 Noise Level (T1 new, T2-T4 existing)	19.5	23.9	28.1	30.1	30.7	30.7	30.7	30.7	30.7	
STAGE B Predicted T1-T4 Noise Level (T1-T3 new, T4 existing)	19.3	22.5	26.4	28.6	29.5	30.0	30.0	30.0	30.0	
STAGE C Predicted T1-T4 Noise Level (T1-T4 new)	19.1	20.8	24.3	26.8	28.4	29.3	29.3	29.3	29.3	
Exceedance of Lower Amenity Hours Noise Criterion (Stage A)	-15.5	-11.1	-6.9	-4.9	-4.3	-4.4	-7.5	-12.7	-12.7	
Exceedance of Lower Amenity Hours Noise Criterion (Stage B)	-15.7	-12.5	-8.6	-6.4	-5.5	-5.1	-8.2	-13.4	-13.4	
Exceedance of Lower Amenity Hours Noise Criterion (Stage C)	-15.9	-14.2	-10.7	-8.2	-6.6	-5.8	-8.9	-14.1	-14.1	

Table A.6: Predicted Noise Levels (dB L _{A90}) of Transition Stages (T1-T4), Erw-Dinmael										
Standardised 10m Wind Speed (m.s ⁻¹)	4	5	6	7	8	9	10	11	12	
Prevailing Background Noise Level (dB L _{A90})	26.2	26.2	26.7	27.3	28.3	30.1	33.1	38.3	38.3	
Lower Amenity Hours Noise Criterion (35 dB / Background + 5 dB)	35.0	35.0	35.0	35.0	35.0	35.1	38.1	43.3	43.3	
Upper Amenity Hours Noise Criterion (40 dB / Background + 5 dB)	40.0	40.0	40.0	40.0	40.0	40.0	40.0	43.3	43.3	
STAGE A Predicted T1-T4 Noise Level (T1 new, T2-T4 existing)	19.8	24.0	28.1	30.1	30.8	30.8	30.8	30.8	30.8	
STAGE B Predicted T1-T4 Noise Level (T1-T3 new, T4 existing)	19.6	22.6	26.4	28.6	29.7	30.1	30.1	30.1	30.1	
STAGE C Predicted T1-T4 Noise Level (T1-T4 new)	19.5	21.2	24.7	27.2	28.7	29.5	29.5	29.5	29.5	
Exceedance of Lower Amenity Hours Noise Criterion (Stage A)	-15.2	-11.0	-6.9	-4.9	-4.2	-4.3	-7.3	-12.5	-12.5	
Exceedance of Lower Amenity Hours Noise Criterion (Stage B)	-15.4	-12.4	-8.6	-6.4	-5.3	-5.0	-8.0	-13.2	-13.2	
Exceedance of Lower Amenity Hours Noise Criterion (Stage C)	-15.5	-13.8	-10.3	-7.8	-6.3	-5.5	-8.6	-13.8	-13.8	

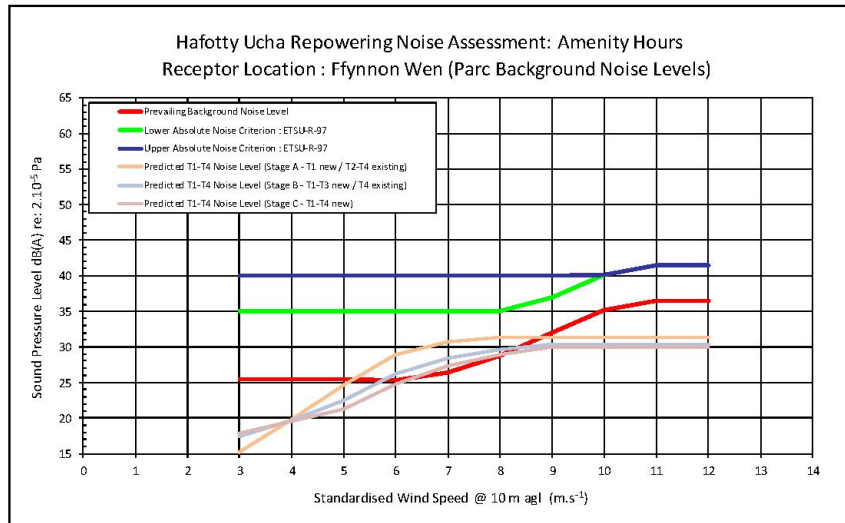


Figure A.7 – Transition Stage Assessment at Ffynnon Wen (Daytime)

Table A.7: Predicted Noise Levels (dB L _{A90}) of Transition Stages (T1-T4), Ffynnon Wen										
Standardised 10m Wind Speed (m.s ⁻¹)	4	5	6	7	8	9	10	11	12	
Prevailing Background Noise Level (dB L _{A90})	25.4	25.4	25.4	26.4	28.8	32.0	35.1	36.5	36.5	
Lower Amenity Hours Noise Criterion (35 dB / Background + 5 dB)	35.0	35.0	35.0	35.0	35.0	37.0	40.1	41.5	41.5	
Upper Amenity Hours Noise Criterion (40 dB / Background + 5 dB)	40.0	40.0	40.0	40.0	40.0	40.0	40.1	41.5	41.5	
STAGE A Predicted T1-T4 Noise Level (T1 new, T2-T4 existing)	19.8	24.6	28.9	30.8	31.3	31.3	31.3	31.3	31.3	
STAGE B Predicted T1-T4 Noise Level (T1-T3 new, T4 existing)	19.7	22.4	26.2	28.5	29.6	30.4	30.4	30.4	30.4	
STAGE C Predicted T1-T4 Noise Level (T1-T4 new)	19.6	21.3	24.8	27.3	28.9	30.0	30.0	30.0	30.0	
Exceedance of Lower Amenity Hours Noise Criterion (Stage A)	-15.2	-10.4	-6.1	-4.2	-3.7	-5.7	-8.8	-10.1	-10.1	
Exceedance of Lower Amenity Hours Noise Criterion (Stage B)	-15.3	-12.6	-8.8	-6.5	-5.4	-6.6	-9.7	-11.1	-11.1	
Exceedance of Lower Amenity Hours Noise Criterion (Stage C)	-15.4	-13.7	-10.2	-7.7	-6.1	-7.0	-10.1	-11.5	-11.5	

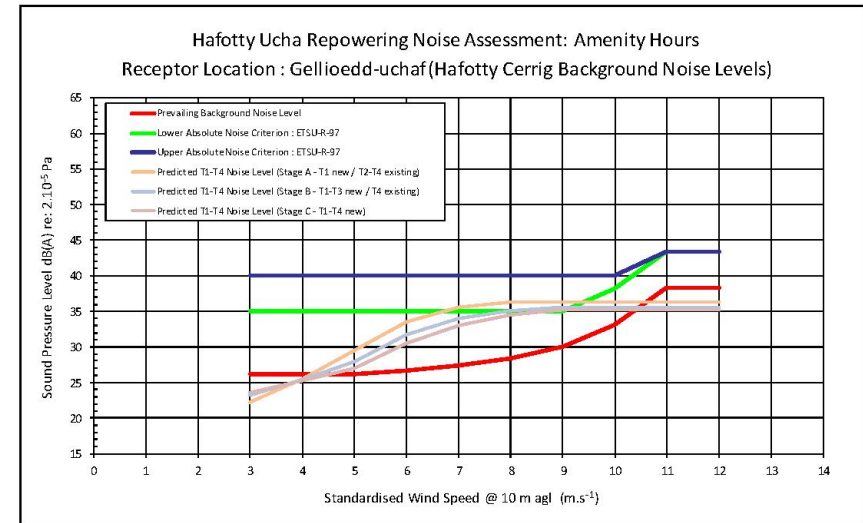


Figure A.8 – Transition Stage Assessment at Gellioedd-uchaf (Daytime)

Table A.8: Predicted Noise Levels (dB L _{A90}) of Transition Stages (T1-T4), Gellioedd-uchaf										
Standardised 10m Wind Speed (m.s ⁻¹)	4	5	6	7	8	9	10	11	12	
Prevailing Background Noise Level (dB L _{A90})	26.2	26.2	26.7	27.3	29.3	30.1	33.1	38.3	38.3	
Lower Amenity Hours Noise Criterion (35 dB / Background + 5 dB)	35.0	35.0	35.0	35.0	35.0	35.1	38.1	43.3	43.3	
Upper Amenity Hours Noise Criterion (40 dB / Background + 5 dB)	40.0	40.0	40.0	40.0	40.0	40.0	40.0	43.3	43.3	
STAGE A Predicted T1-T4 Noise Level (T1 new, T2-T4 existing)	25.5	29.5	33.5	35.6	36.3	36.3	36.3	36.3	36.3	
STAGE B Predicted T1-T4 Noise Level (T1-T3 new, T4 existing)	25.4	28.0	31.7	34.0	35.1	35.6	35.6	35.6	35.6	
STAGE C Predicted T1-T4 Noise Level (T1-T4 new)	25.3	27.0	30.5	33.0	34.5	35.2	35.2	35.2	35.2	
Exceedance of Lower Amenity Hours Noise Criterion (Stage A)	-9.5	-5.5	-1.5	0.6	1.3	1.2	-1.8	-7.0	-7.0	
Exceedance of Lower Amenity Hours Noise Criterion (Stage B)	-9.6	-7.0	-3.3	-1.0	0.1	0.5	-2.6	-7.8	-7.8	
Exceedance of Lower Amenity Hours Noise Criterion (Stage C)	-9.7	-8.0	-4.5	-2.0	-0.5	0.2	-2.9	-8.1	-8.1	

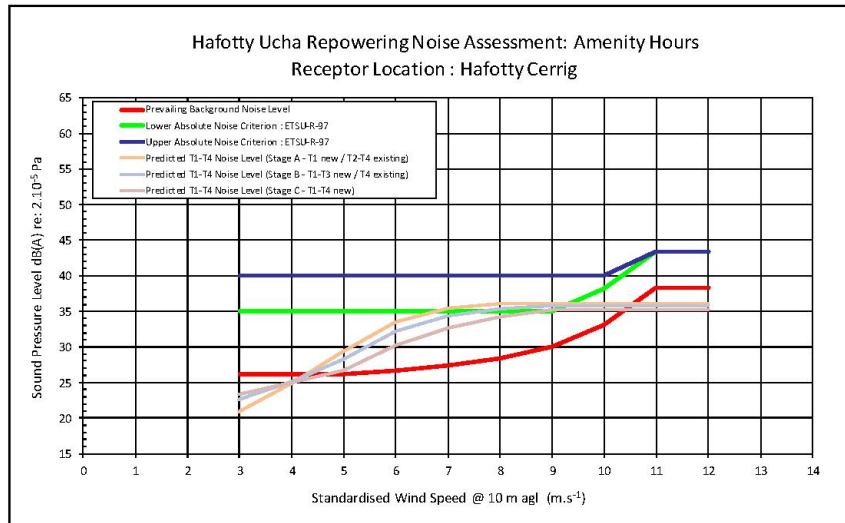


Figure A.9 – Transition Stage Assessment at Hafotty Cerrig (Daytime)

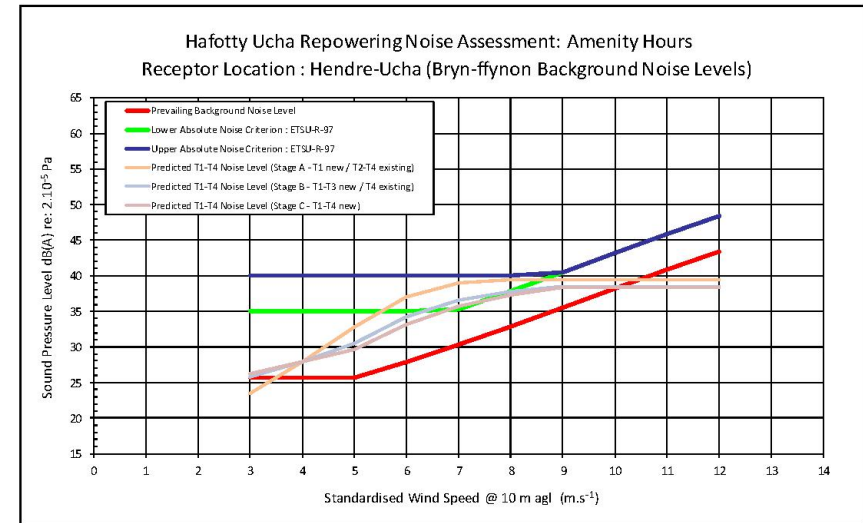


Figure A.10 – Transition Stage Assessment at Hendre-Ucha (Daytime)

Table A.9: Predicted Noise Levels (dB L _{A90}) of Transition Stages (T1-T4), Hafotty Cerrig										
Standardised 10m Wind Speed (m.s ⁻¹)	4	5	6	7	8	9	10	11	12	
Prevailing Background Noise Level (dB L _{A90})	26.2	26.2	26.7	27.3	28.3	30.1	33.1	38.3	38.3	
Lower Amenity Hours Noise Criterion (35 dB / Background + 5 dB)	35.0	35.0	35.0	35.0	35.0	35.1	38.1	43.3	43.3	
Upper Amenity Hours Noise Criterion (40 dB / Background + 5 dB)	40.0	40.0	40.0	40.0	40.0	40.0	40.0	43.3	43.3	
STAGE A Predicted T1-T4 Noise Level (T1 new, T2-T4 existing)	24.9	29.4	33.5	35.5	36.1	36.1	36.1	36.1	36.1	
STAGE B Predicted T1-T4 Noise Level (T1-T3 new, T4 existing)	25.1	28.3	32.2	34.3	35.3	35.8	35.8	35.8	35.8	
STAGE C Predicted T1-T4 Noise Level (T1-T4 new)	25.0	26.7	30.2	32.7	34.3	35.2	35.2	35.2	35.2	
Exceedance of Lower Amenity Hours Noise Criterion (Stage A)	-10.1	-5.6	-1.5	0.5	1.1	1.1	-2.0	-7.2	-7.2	
Exceedance of Lower Amenity Hours Noise Criterion (Stage B)	-9.9	-6.7	-2.8	-0.7	0.3	0.7	-2.3	-7.5	-7.5	
Exceedance of Lower Amenity Hours Noise Criterion (Stage C)	-10.0	-8.3	-4.8	-2.3	-0.7	0.2	-2.9	-8.1	-8.1	

Table A.10: Predicted Noise Levels (dB L _{A90}) of Transition Stages (T1-T4), Hendre-Ucha										
Standardised 10m Wind Speed (m.s ⁻¹)	4	5	6	7	8	9	10	11	12	
Prevailing Background Noise Level (dB L _{A90})	25.7	25.7	27.9	30.3	32.9	35.5	38.2	40.9	43.4	
Lower Amenity Hours Noise Criterion (35 dB / Background + 5 dB)	35.0	35.0	35.0	35.3	37.9	40.5	43.2	45.9	48.4	
Upper Amenity Hours Noise Criterion (40 dB / Background + 5 dB)	40.0	40.0	40.0	40.0	40.0	40.5	43.2	45.9	48.4	
STAGE A Predicted T1-T4 Noise Level (T1 new, T2-T4 existing)	28.0	32.8	37.0	39.0	39.5	39.5	39.5	39.5	39.5	
STAGE B Predicted T1-T4 Noise Level (T1-T3 new, T4 existing)	27.9	30.4	34.2	36.5	37.7	38.5	38.5	38.5	38.5	
STAGE C Predicted T1-T4 Noise Level (T1-T4 new)	28.0	29.7	33.2	35.7	37.2	38.3	38.3	38.3	38.3	
Exceedance of Lower Amenity Hours Noise Criterion (Stage A)	-7.0	-2.2	2.0	3.7	1.6	-1.0	-3.7	-6.3	-8.9	
Exceedance of Lower Amenity Hours Noise Criterion (Stage B)	-7.1	-4.6	-0.8	1.2	-0.1	-2.0	-4.7	-7.3	-9.9	
Exceedance of Lower Amenity Hours Noise Criterion (Stage C)	-7.0	-5.3	-1.8	0.4	-0.6	-2.2	-4.9	-7.5	-10.1	

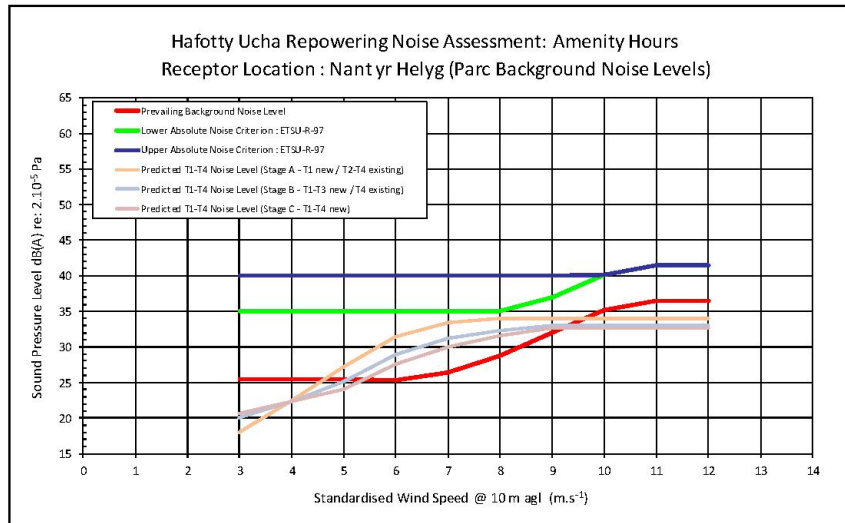


Figure A.11 – Transition Stage Assessment at Nant yr Helyg (Daytime)

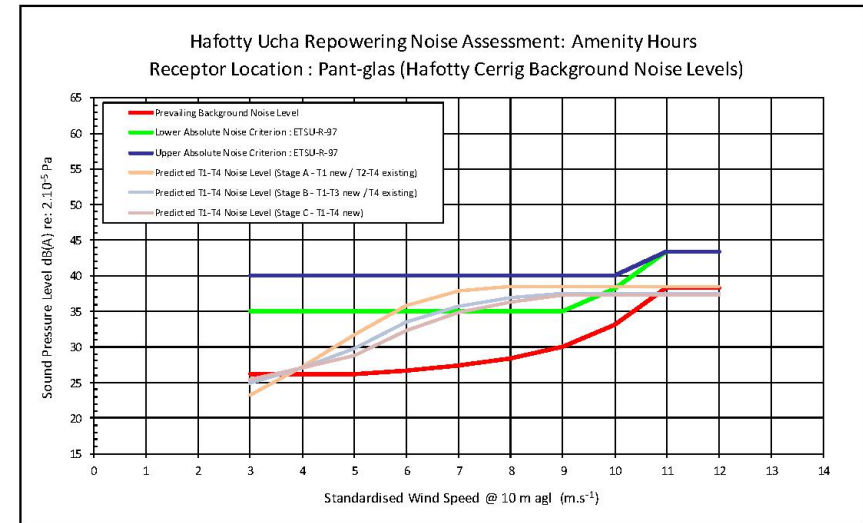


Figure A.12 – Transition Stage Assessment at Pant-glas (Daytime)

Table A.11: Predicted Noise Levels (dB L_{A90}) of Transition Stages (T1-T4), Nant yr Helyg										
Standardised 10m Wind Speed ($m.s^{-1}$)	4	5	6	7	8	9	10	11	12	
Prevailing Background Noise Level (dB L_{A90})	25.4	25.4	25.4	26.4	28.8	32.0	35.1	36.5	36.5	
Lower Amenity Hours Noise Criterion (35 dB / Background + 5 dB)	35.0	35.0	35.0	35.0	35.0	37.0	40.1	41.5	41.5	
Upper Amenity Hours Noise Criterion (40 dB / Background + 5 dB)	40.0	40.0	40.0	40.0	40.0	40.0	40.1	41.5	41.5	
STAGE A Predicted T1-T4 Noise Level (T1 new, T2-T4 existing)	22.5	27.3	31.5	33.4	34.0	34.0	34.0	34.0	34.0	
STAGE B Predicted T1-T4 Noise Level (T1-T3 new, T4 existing)	22.3	25.1	28.9	31.2	32.3	33.0	33.0	33.0	33.0	
STAGE C Predicted T1-T4 Noise Level (T1-T4 new)	22.3	24.0	27.5	30.0	31.6	32.7	32.7	32.7	32.7	
Exceedance of Lower Amenity Hours Noise Criterion (Stage A)	-12.5	-7.7	-3.5	-1.6	-1.0	-3.1	-6.1	-7.5	-7.5	
Exceedance of Lower Amenity Hours Noise Criterion (Stage B)	-12.7	-9.9	-6.1	-3.8	-2.7	-4.0	-7.1	-8.4	-8.4	
Exceedance of Lower Amenity Hours Noise Criterion (Stage C)	-12.7	-11.0	-7.5	-5.0	-3.4	-4.3	-7.4	-8.8	-8.8	

Table A.12: Predicted Noise Levels (dB L_{A90}) of Transition Stages (T1-T4), Pant-glas										
Standardised 10m Wind Speed ($m.s^{-1}$)	4	5	6	7	8	9	10	11	12	
Prevailing Background Noise Level (dB L_{A90})	26.2	26.2	26.7	27.3	29.3	30.1	33.1	38.3	38.3	
Lower Amenity Hours Noise Criterion (35 dB / Background + 5 dB)	35.0	35.0	35.0	35.0	35.0	35.1	38.1	43.3	43.3	
Upper Amenity Hours Noise Criterion (40 dB / Background + 5 dB)	40.0	40.0	40.0	40.0	40.0	40.0	40.0	43.3	43.3	
STAGE A Predicted T1-T4 Noise Level (T1 new, T2-T4 existing)	27.2	31.7	35.9	37.8	38.5	38.5	38.5	38.5	38.5	
STAGE B Predicted T1-T4 Noise Level (T1-T3 new, T4 existing)	27.1	29.7	33.5	35.8	36.9	37.5	37.5	37.5	37.5	
STAGE C Predicted T1-T4 Noise Level (T1-T4 new)	27.1	28.8	32.3	34.8	36.3	37.3	37.3	37.3	37.3	
Exceedance of Lower Amenity Hours Noise Criterion (Stage A)	-7.8	-3.3	0.9	2.8	3.5	3.4	0.3	-4.9	-4.9	
Exceedance of Lower Amenity Hours Noise Criterion (Stage B)	-7.9	-5.3	-1.5	0.8	1.9	2.5	-0.6	-5.8	-5.8	
Exceedance of Lower Amenity Hours Noise Criterion (Stage C)	-7.9	-6.2	-2.7	-0.2	1.3	2.2	-0.9	-6.1	-6.1	

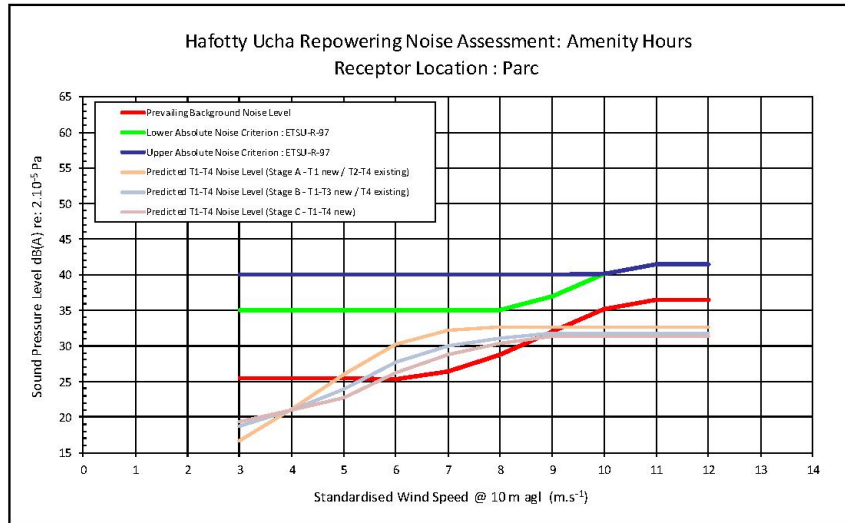


Figure A.13 – Transition Stage Assessment at Parc (Daytime)

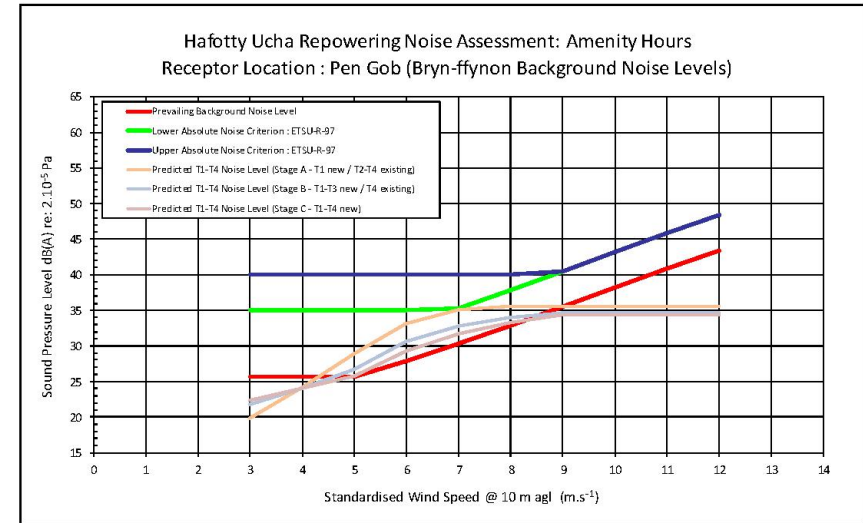


Figure A.14 – Transition Stage Assessment at Pen Gob (Daytime)

Standardised 10m Wind Speed (m.s ⁻¹)	4	5	6	7	8	9	10	11	12
Prevailing Background Noise Level (dB L _{A90})	25.4	25.4	25.4	26.4	28.8	32.0	35.1	36.5	36.5
Lower Amenity Hours Noise Criterion (35 dB / Background + 5 dB)	35.0	35.0	35.0	35.0	35.0	37.0	40.1	41.5	41.5
Upper Amenity Hours Noise Criterion (40 dB / Background + 5 dB)	40.0	40.0	40.0	40.0	40.0	40.0	40.1	41.5	41.5
STAGE A Predicted T1-T4 Noise Level (T1 new, T2-T4 existing)	21.2	26.0	30.2	32.1	32.7	32.7	32.7	32.7	32.7
STAGE B Predicted T1-T4 Noise Level (T1-T3 new, T4 existing)	21.1	23.9	27.7	30.0	31.1	31.8	31.8	31.8	31.8
STAGE C Predicted T1-T4 Noise Level (T1-T4 new)	21.1	22.8	26.3	28.8	30.3	31.4	31.4	31.4	31.4
Exceedance of Lower Amenity Hours Noise Criterion (Stage A)	-13.8	-9.0	-4.8	-2.9	-2.3	-4.3	-7.4	-8.8	-8.8
Exceedance of Lower Amenity Hours Noise Criterion (Stage B)	-13.9	-11.1	-7.3	-5.0	-3.9	-5.3	-8.3	-9.7	-9.7
Exceedance of Lower Amenity Hours Noise Criterion (Stage C)	-13.9	-12.2	-8.7	-6.2	-4.7	-5.6	-8.7	-10.1	-10.1

Standardised 10m Wind Speed (m.s ⁻¹)	4	5	6	7	8	9	10	11	12
Prevailing Background Noise Level (dB L _{A90})	25.7	25.7	27.9	30.3	32.9	35.5	38.2	40.9	43.4
Lower Amenity Hours Noise Criterion (35 dB / Background + 5 dB)	35.0	35.0	35.0	35.3	37.9	40.5	43.2	45.9	48.4
Upper Amenity Hours Noise Criterion (40 dB / Background + 5 dB)	40.0	40.0	40.0	40.0	40.0	40.5	43.2	45.9	48.4
STAGE A Predicted T1-T4 Noise Level (T1 new, T2-T4 existing)	24.2	28.9	33.1	35.1	35.6	35.6	35.6	35.6	35.6
STAGE B Predicted T1-T4 Noise Level (T1-T3 new, T4 existing)	24.0	26.7	30.5	32.8	34.0	34.7	34.7	34.7	34.7
STAGE C Predicted T1-T4 Noise Level (T1-T4 new)	24.0	25.7	29.2	31.7	33.3	34.3	34.3	34.3	34.3
Exceedance of Lower Amenity Hours Noise Criterion (Stage A)	-10.8	-6.1	-1.9	-0.3	-2.3	-4.9	-7.6	-10.2	-12.8
Exceedance of Lower Amenity Hours Noise Criterion (Stage B)	-11.0	-8.3	-4.5	-2.5	-3.9	-5.9	-8.5	-11.2	-13.8
Exceedance of Lower Amenity Hours Noise Criterion (Stage C)	-11.0	-9.3	-5.8	-3.6	-4.6	-6.2	-8.9	-11.5	-14.1

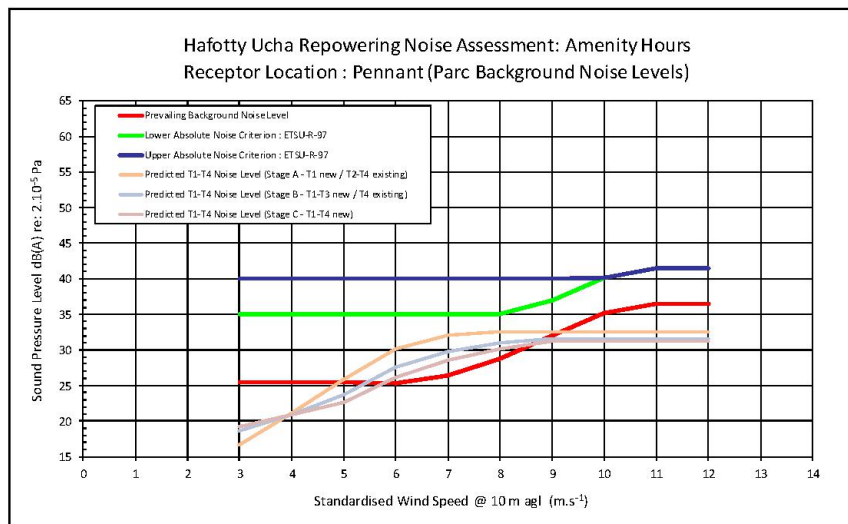


Figure A.15 – Transition Stage Assessment at Pennant (Daytime)

Table A.15: Predicted Noise Levels (dB L _{A90}) of Transition Stages (T1-T4), Pennant										
Standardised 10m Wind Speed (m.s ⁻¹)	4	5	6	7	8	9	10	11	12	
Prevailing Background Noise Level (dB L _{A90})	25.4	25.4	25.4	26.4	28.8	32.0	35.1	36.5	36.5	
Lower Amenity Hours Noise Criterion (35 dB / Background + 5 dB)	35.0	35.0	35.0	35.0	35.0	37.0	40.1	41.5	41.5	
Upper Amenity Hours Noise Criterion (40 dB / Background + 5 dB)	40.0	40.0	40.0	40.0	40.0	40.0	40.1	41.5	41.5	
STAGE A Predicted T1-T4 Noise Level (T1 new, T2-T4 existing)	21.1	25.9	30.1	32.0	32.6	32.6	32.6	32.6	32.6	
STAGE B Predicted T1-T4 Noise Level (T1-T3 new, T4 existing)	20.9	23.7	27.6	29.8	30.9	31.6	31.6	31.6	31.6	
STAGE C Predicted T1-T4 Noise Level (T1-T4 new)	20.9	22.6	26.1	28.6	30.1	31.2	31.2	31.2	31.2	
Exceedance of Lower Amenity Hours Noise Criterion (Stage A)	-13.9	-9.1	-4.9	-3.0	-2.4	-4.4	-7.5	-8.9	-8.9	
Exceedance of Lower Amenity Hours Noise Criterion (Stage B)	-14.1	-11.3	-7.4	-5.2	-4.1	-5.4	-8.5	-9.8	-9.8	
Exceedance of Lower Amenity Hours Noise Criterion (Stage C)	-14.1	-12.4	-8.9	-6.4	-4.9	-5.8	-8.9	-10.3	-10.3	

PROPOSED NOISE LIMITS

The proposed daytime noise limits are based upon; the greater of 35 dB L_{A90} / Background + 5 dB, or the predicted noise level where this exceeds such a criterion.

The proposed night-time noise limits are based upon; the greater of 43 dB L_{A90} / Background + 5 dB.

The proposed noise limits for the associated Bryn-ffynon, are based upon; the greater of 45 dB L_{A90} / Background + 5 dB.

Draft Planning Conditions on Noise

STAGE A

1. For transitional Stage A (when T1 is re-powered, and T2-T4 remain), the rating level of noise immissions from the combined effects of; the re-powered Hafotty Ucha Wind Farm (App. Ref.: 0/44248); and turbines falling under permissions (App. Ref: 0/25079) and (App. Ref: 0/29712), (including the application of any tonal penalty) when determined in accordance with the methodology outlined in ETSU-R-97, shall not exceed the values set out in the following Tables A.16 – A.17, as appropriate. Noise limits for dwellings which lawfully exist or have planning permission for construction at the date of this consent but that are not listed below shall be those of the physically closest location referred to below, unless otherwise agreed by the local authority.

Table A.16: Proposed Noise Limits (Day-time 07:00 – 23:00) – STAGE A (dB L_{A90})										
Receptor Location	Standardised 10m Wind Speed (m.s ⁻¹)									
	3	4	5	6	7	8	9	10	11	12
Bryn-ffynon	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.9	48.4
Bryn-yr-hyddod	35.8	35.8	35.8	37.2	39.2	41.5	44.2	47.0	49.8	52.6
Capel Gellioedd	35.0	35.0	35.0	35.0	35.0	35.3	35.3	38.1	43.3	43.3
Castell	35.0	35.0	35.0	35.0	35.0	35.0	35.1	38.1	43.3	43.3
Cwmeorddwr	35.0	35.0	35.0	35.0	35.0	35.0	35.1	38.1	43.3	43.3
Erw-Dinmael	35.0	35.0	35.0	35.0	35.0	35.0	35.1	38.1	43.3	43.3
Flynnon Wen	35.0	35.0	35.0	35.0	35.0	35.0	37.0	40.1	41.5	41.5
Gellioedd-uchaf	35.0	35.0	35.0	35.0	35.6	36.3	36.3	38.1	43.3	43.3
Hafotty Cerrig	35.0	35.0	35.0	35.0	35.5	36.1	36.1	38.1	43.3	43.3
Hendre-Ucha	35.0	35.0	35.0	37.0	39.0	39.5	40.5	43.2	45.9	48.4
Nant yr Helyg	35.0	35.0	35.0	35.0	35.0	35.0	37.0	40.1	41.5	41.5
Pant-glas	35.0	35.0	35.0	35.9	37.8	38.5	38.5	38.5	43.3	43.3
Parc	35.0	35.0	35.0	35.0	35.0	35.0	37.0	40.1	41.5	41.5
Pen Gob	35.0	35.0	35.0	35.0	35.3	37.9	40.5	43.2	45.9	48.4
Pennant	35.0	35.0	35.0	35.0	35.0	35.0	37.0	40.1	41.5	41.5

Table A.17: Proposed Noise Limits (Night-time 23:00 – 07:00) – STAGE A (dB L_{A90})										
Receptor Location	Standardised 10m Wind Speed (m.s ⁻¹)									
	3	4	5	6	7	8	9	10	11	12
Bryn-ffynon	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	46.8
Bryn-yr-hyddod	43.0	43.0	43.0	43.0	43.0	43.0	44.1	47.0	50.1	53.1

Table A.17: Proposed Noise Limits (Night-time 23:00 – 07:00) – STAGE A (dB L _{A90})										
Receptor Location	Standardised 10m Wind Speed (m.s ⁻¹)									
	3	4	5	6	7	8	9	10	11	12
Capel Gellioedd	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
Castell	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
Cwmeorddwr	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
Erw-Dinmael	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
Ffynnon Wen	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
Gellioedd-uchaf	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
Hafotty Cerrig	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
Hendre-Ucha	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.5	46.8
Nant yr Helyg	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
Pant-glas	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
Parc	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
Pen Gob	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.5	46.8
Pennant	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0

STAGE B

2. For transitional Stage B (when T1-T3 are re-powered, and T4 remains), the rating level of noise immissions from the combined effects of; the re-powered Hafotty Ucha Wind Farm (App. Ref.: 0/44248); and the turbine falling under permission (App. Ref: 0/29712), (including the application of any tonal penalty) when determined in accordance with the methodology outlined in ETSU-R-97, shall not exceed the values set out in the following Tables A.18 – A.19, as appropriate. Noise limits for dwellings which lawfully exist or have planning permission for construction at the date of this consent but that are not listed below shall be those of the physically closest location referred to below, unless otherwise agreed by the local authority.

Table A.18: Proposed Noise Limits (Day-time 07:00 – 23:00) – STAGE B (dB L _{A90})										
Receptor Location	Standardised 10m Wind Speed (m.s ⁻¹)									
	3	4	5	6	7	8	9	10	11	12
Bryn-ffynon	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.9	48.4
Bryn-yr-hyddod	35.8	35.8	35.8	37.2	39.2	41.5	44.2	47.0	49.8	52.6
Capel Gellioedd	35.0	35.0	35.0	35.0	35.0	35.0	35.1	38.1	43.3	43.3
Castell	35.0	35.0	35.0	35.0	35.0	35.0	35.1	38.1	43.3	43.3
Cwmeorddwr	35.0	35.0	35.0	35.0	35.0	35.0	35.1	38.1	43.3	43.3
Erw-Dinmael	35.0	35.0	35.0	35.0	35.0	35.0	35.1	38.1	43.3	43.3
Ffynnon Wen	35.0	35.0	35.0	35.0	35.0	35.0	37.0	40.1	41.5	41.5
Gellioedd-uchaf	35.0	35.0	35.0	35.0	35.0	35.1	35.6	38.1	43.3	43.3
Hafotty Cerrig	35.0	35.0	35.0	35.0	35.0	35.3	35.8	38.1	43.3	43.3
Hendre-Ucha	35.0	35.0	35.0	35.0	36.5	37.9	40.5	43.2	45.9	48.4
Nant yr Helyg	35.0	35.0	35.0	35.0	35.0	35.0	37.0	40.1	41.5	41.5
Pant-glas	35.0	35.0	35.0	35.0	35.8	36.9	37.5	38.1	43.3	43.3
Parc	35.0	35.0	35.0	35.0	35.0	35.0	37.0	40.1	41.5	41.5
Pen Gob	35.0	35.0	35.0	35.0	35.3	37.9	40.5	43.2	45.9	48.4
Pennant	35.0	35.0	35.0	35.0	35.0	35.0	37.0	40.1	41.5	41.5

Table A.19: Proposed Noise Limits (Night-time 23:00 – 07:00) – STAGE B (dB L _{A90})										
Receptor Location	Standardised 10m Wind Speed (m.s ⁻¹)									
	3	4	5	6	7	8	9	10	11	12
Bryn-ffynon	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	46.8
Bryn-yr-hyddod	43.0	43.0	43.0	43.0	43.0	43.0	44.1	47.0	50.1	53.1
Capel Gellioedd	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
Castell	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
Cwmeoroddwr	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
Erw-Dinmael	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
Flynnon Wen	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
Gellioedd-uchaf	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
Hafotty Cerrig	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
Hendre-Ucha	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.5	46.8
Nant yr Helyg	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
Pant-glas	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
Parc	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
Pen Gob	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.5	46.8
Pennant	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0

STAGE C

3. For Stage C (when T1-T4 are re-powered), the rating level of noise immissions from the combined effects of; the re-powered Hafotty Ucha Wind Farm (App. Ref.: 0/44248), (including the application of any tonal penalty) when determined in accordance with the methodology outlined in ETSU-R-97, shall not exceed the values set out in the following Tables A.20 – A.21, as appropriate. Noise limits for dwellings which lawfully exist or have planning permission for construction at the date of this consent but that are not listed below shall be those of the physically closest location referred to below, unless otherwise agreed by the local authority.

Table A.20: Proposed Noise Limits (Day-time 07:00 – 23:00) – STAGE C (dB L _{A90})										
Receptor Location	Standardised 10m Wind Speed (m.s ⁻¹)									
	3	4	5	6	7	8	9	10	11	12
Bryn-ffynon	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.9	48.4
Bryn-yr-hyddod	35.8	35.8	35.8	37.2	39.2	41.5	44.2	47.0	49.8	52.6
Capel Gellioedd	35.0	35.0	35.0	35.0	35.0	35.0	35.1	38.1	43.3	43.3
Castell	35.0	35.0	35.0	35.0	35.0	35.0	35.1	38.1	43.3	43.3
Cwmeoroddwr	35.0	35.0	35.0	35.0	35.0	35.0	35.1	38.1	43.3	43.3
Erw-Dinmael	35.0	35.0	35.0	35.0	35.0	35.0	35.1	38.1	43.3	43.3
Flynnon Wen	35.0	35.0	35.0	35.0	35.0	35.0	37.0	40.1	41.5	41.5
Gellioedd-uchaf	35.0	35.0	35.0	35.0	35.0	35.0	35.2	38.1	43.3	43.3
Hafotty Cerrig	35.0	35.0	35.0	35.0	35.0	35.0	35.2	38.1	43.3	43.3
Hendre-Ucha	35.0	35.0	35.0	35.0	35.7	37.9	40.5	43.2	45.9	48.4
Nant yr Helyg	35.0	35.0	35.0	35.0	35.0	35.0	37.0	40.1	41.5	41.5
Pant-glas	35.0	35.0	35.0	35.0	35.0	36.3	37.3	38.1	43.3	43.3
Parc	35.0	35.0	35.0	35.0	35.0	35.0	37.0	40.1	41.5	41.5
Pen Gob	35.0	35.0	35.0	35.0	35.3	37.9	40.5	43.2	45.9	48.4
Pennant	35.0	35.0	35.0	35.0	35.0	35.0	37.0	40.1	41.5	41.5

Table A.21: Proposed Noise Limits (Night-time 23:00 – 07:00) – STAGE C (dB L _{A90})											
Receptor Location	Standardised 10m Wind Speed (m.s ⁻¹)										
	3	4	5	6	7	8	9	10	11	12	
Bryn-ffynon	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	46.8	
Bryn-yr-hyddod	43.0	43.0	43.0	43.0	43.0	43.0	44.1	47.0	50.1	53.1	
Capel Gellioedd	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	
Castell	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	
Cwmeoroddwr	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	
Erw-Dinmael	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	
Flynnon Wen	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	
Gellioedd-uchaf	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	
Hafotty Cerrig	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	
Hendre-Ucha	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.5	46.8	
Nant yr Helyg	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	
Pant-glas	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	
Parc	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	
Pen Gob	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.5	46.8	
Pennant	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	

Table A.22: Approximate Co-ordinate Locations of the Properties Listed in Tables A.16-A21		
Receptor Location	Grid Co-ordinates	
	Easting	Northing
Bryn-ffynon	294300	345280
Bryn-yr-hyddod	293413	346142
Capel Gellioedd	293863	344752
Castell	292579	345167
Cwmeoroddwr	293313	346881
Erw-Dinmael	292571	346205
Flynnon Wen	294952	346094
Gellioedd-uchaf	293077	344943
Hafotty Cerrig	293458	346384
Hendre-Ucha	294165	345183
Nant yr Helyg	294820	345594
Pant-glas	293698	344955
Parc	294940	345718
Pen Gob	294420	344965
Pennant	294963	345573

Note to Table A.22: The geographical co-ordinate references are provided for the purpose of identifying the general location of dwellings to which a given set of noise limits applies.