

**APPENDIX 9.7:**

**TABLES SHOWING COMPARISON OF TURBINE NOISE, BACKGROUND NOISE, ETSU-R-97 LIMIT FOR EACH LOCATION**

**Maesnant: Amenity Hours**

Wind Speed (m/s)	Background Noise (Sept-Oct 2013) LA90 dB	ETSU Limit LA90 dB <sub>10mins</sub>	Mode 0 Predicted Turbine Noise LA90 dB <sub>10mins</sub>	Difference between turbine noise & ETSU-R-97 limit LA90 dB <sub>10mins</sub>	Level Above ETSU-R-97 Guidance
4	29.5	45.0	30.9	-14.1	None
5	31.0	45.0	34.2	-10.8	None
6	32.6	45.0	37.5	-7.5	None
7	34.4	45.0	39.4	-5.6	None
8	36.2	45.0	40.3	-4.7	None
9	38.0	45.0	40.2	-4.8	None
10	39.5	45.0	38.9	-6.1	None
11	40.8	45.8	38.5	-7.3	None

**Maesnant: Night-time**

Wind Speed (m/s)	Background Noise (Sept-Oct 2013) LA90 dB	ETSU Limit LA90 dB <sub>10mins</sub>	Mode 0 Predicted Turbine Noise LA90 dB <sub>10mins</sub>	Difference between turbine noise & ETSU-R-97 limit LA90 dB <sub>10mins</sub>	Level Above ETSU-R-97 Guidance
4	29.3	45	30.9	-14.1	None
5	30.3	45	34.2	-10.8	None
6	31.5	45	37.5	-7.5	None
7	32.9	45	39.4	-5.6	None
8	34.3	45	40.3	-4.7	None
9	35.5	45	40.2	-4.8	None
10	36.5	45	38.9	-6.1	None
11	37.2	45	38.5	-7.3	None

### Rhyd-y-benwch: Amenity Hours

Wind Speed (m/s)	Background Noise (Sept-Oct 2013) LA90 dB	ETSU Limit LA90 dB <sub>10mins</sub>	Mode 0 Predicted Turbine Noise LA90 dB <sub>10mins</sub>	Difference between turbine noise & ETSU-R-97 limit LA90 dB <sub>10mins</sub>	Level Above ETSU-R-97 Guidance
4	29.5	35.0	25.4	-9.6	None
5	31.0	36.0	28.7	-7.3	None
6	32.6	37.6	32.0	-5.6	None
7	34.4	39.4	33.9	-5.5	None
8	36.2	41.2	34.8	-6.4	None
9	38.0	43.0	34.7	-8.3	None
10	39.5	44.5	33.4	-11.1	None
11	40.8	45.8	33.0	-12.8	None

### Rhyd-y-benwch: Night-time

Wind Speed (m/s)	Background Noise (Sept-Oct 2013) LA90 dB	ETSU Limit LA90 dB <sub>10mins</sub>	Mode 0 Predicted Turbine Noise LA90 dB <sub>10mins</sub>	Difference between turbine noise & ETSU-R-97 limit LA90 dB <sub>10mins</sub>	Level Above ETSU-R-97 Guidance
4	29.3	43	25.4	-17.6	None
5	30.3	43	28.7	-14.3	None
6	31.5	43	32.0	-11.0	None
7	32.9	43	33.9	-9.1	None
8	34.3	43	34.8	-8.2	None
9	35.5	43	34.7	-8.3	None
10	36.5	43	33.4	-9.6	None
11	37.2	43	33.0	-10.0	None

**Manod: Amenity Hours**

Wind Speed (m/s)	Background Noise (Sept-Oct 2013) LA90 dB	ETSU Limit LA90 dB <sub>10mins</sub>	Mode 0 Predicted Turbine Noise LA90 dB <sub>10mins</sub>	Difference between turbine noise & ETSU-R-97 limit LA90 dB <sub>10mins</sub>	Level Above ETSU-R-97 Guidance
4	37.8	45.0	30.5	-14.5	None
5	38.3	45.0	33.8	-11.2	None
6	39.0	45.0	37.1	-7.9	None
7	39.9	45.0	39.0	-6.0	None
8	40.9	45.9	39.9	-6.0	None
9	42.1	47.1	39.8	-7.3	None
10	43.4	48.4	38.5	-9.9	None
11	44.7	49.7	38.1	-11.6	None

**Manod: Night-time**

Wind Speed (m/s)	Background Noise (Sept-Oct 2013) LA90 dB	ETSU Limit LA90 dB <sub>10mins</sub>	Mode 0 Predicted Turbine Noise LA90 dB <sub>10mins</sub>	Difference between turbine noise & ETSU-R-97 limit LA90 dB <sub>10mins</sub>	Level Above ETSU-R-97 Guidance
4	36.3	45	30.5	-14.5	None
5	36.7	45	33.8	-11.2	None
6	37.4	45	37.1	-7.9	None
7	38.2	45	39.0	-6.0	None
8	39.3	45	39.9	-6.1	None
9	40.5	45.5	39.8	-5.7	None
10	41.7	46.7	38.5	-8.2	None
11	43.0	48.0	38.1	-9.9	None

### Bont Isaf: Amenity Hours

Wind Speed (m/s)	Background Noise (Sept-Oct 2013) LA90 dB	ETSU Limit LA90 dB <sub>10mins</sub>	Mode 0 Predicted Turbine Noise LA90 dB <sub>10mins</sub>	Difference between turbine noise & ETSU-R-97 limit LA90 dB <sub>10mins</sub>	Level Above ETSU-R-97 Guidance
4	29.0	45	32.4	-12.6	None
5	29.7	45	35.7	-9.3	None
6	30.6	45	39.0	-6.0	None
7	31.8	45	40.9	-4.1	None
8	33.3	45	41.8	-3.2	None
9	35.3	45	41.7	-3.3	None
10	37.8	45	40.4	-4.6	None
11	41.0	46.0	40.0	-6.0	None

### Bont Isaf: Night-time

Wind Speed (m/s)	Background Noise (Sept-Oct 2013) LA90 dB	ETSU Limit LA90 dB <sub>10mins</sub>	Mode 0 Predicted Turbine Noise LA90 dB <sub>10mins</sub>	Difference between turbine noise & ETSU-R-97 limit LA90 dB <sub>10mins</sub>	Level Above ETSU-R-97 Guidance
4	26.7	45	32.4	-12.6	None
5	27.9	45	35.7	-9.3	None
6	29.2	45	39.0	-6.0	None
7	30.6	45	40.9	-4.1	None
8	32.1	45	41.8	-3.2	None
9	33.7	45	41.7	-3.3	None
10	35.5	45	40.4	-4.6	None
11	37.4	45	40.0	-5.0	None

**Penrhiwgaled: Amenity Hours**

Wind Speed (m/s)	Background Noise (Sept-Oct 2013) LA90 dB	ETSU Limit LA90 dB <sub>10mins</sub>	Mode 0 Predicted Turbine Noise LA90 dB <sub>10mins</sub>	Difference between turbine noise & ETSU-R-97 limit LA90 dB <sub>10mins</sub>	Level Above ETSU-R-97 Guidance
4	37.8	45.0	29.9	-15.1	None
5	38.3	45.0	33.2	-11.8	None
6	39.0	45.0	36.5	-8.5	None
7	39.9	45.0	38.4	-6.6	None
8	40.9	45.9	39.3	-6.6	None
9	42.1	47.1	39.2	-7.9	None
10	43.4	48.4	37.9	-10.5	None
11	44.7	49.7	37.5	-12.2	None

**Penrhiwgaled: Night-time**

Wind Speed (m/s)	Background Noise (Sept-Oct 2013) LA90 dB	ETSU Limit LA90 dB <sub>10mins</sub>	Mode 0 Predicted Turbine Noise LA90 dB <sub>10mins</sub>	Difference between turbine noise & ETSU-R-97 limit LA90 dB <sub>10mins</sub>	Level Above ETSU-R-97 Guidance
4	36.3	45.0	29.9	-15.1	None
5	36.7	45.0	33.2	-11.8	None
6	37.4	45.0	36.5	-8.5	None
7	38.2	45.0	38.4	-6.6	None
8	39.3	45.0	39.3	-5.7	None
9	40.5	45.5	39.2	-6.3	None
10	41.7	46.7	37.9	-8.8	None
11	43.0	48.0	37.5	-10.5	None

### Blaenbythigion: Amenity Hours

Wind Speed (m/s)	Background Noise (Sept-Oct 2013) LA90 dB	ETSU Limit LA90 dB <sub>10mins</sub>	Mode 0 Predicted Turbine Noise LA90 dB <sub>10mins</sub>	Difference between turbine noise & ETSU-R-97 limit LA90 dB <sub>10mins</sub>	Level Above ETSU-R-97 Guidance
4	29.5	35.0	15.4	-19.6	None
5	31.0	36.0	18.7	-17.3	None
6	32.6	37.6	22.0	-15.6	None
7	34.4	39.4	23.9	-15.5	None
8	36.2	41.2	24.3	-16.9	None
9	38.0	43.0	24.2	-18.8	None
10	39.5	44.5	22.9	-21.6	None
11	40.8	45.8	22.5	-23.3	None

### Blaenbythigion: Night-time

Wind Speed (m/s)	Background Noise (Sept-Oct 2013) LA90 dB	ETSU Limit LA90 dB <sub>10mins</sub>	Mode 0 Predicted Turbine Noise LA90 dB <sub>10mins</sub>	Difference between turbine noise & ETSU-R-97 limit LA90 dB <sub>10mins</sub>	Level Above ETSU-R-97 Guidance
4	29.3	43	15.4	-27.6	None
5	30.3	43	18.7	-24.3	None
6	31.5	43	22.0	-21.0	None
7	32.9	43	23.9	-19.1	None
8	34.3	43	24.3	-18.7	None
9	35.5	43	24.2	-18.8	None
10	36.5	43	22.9	-20.1	None
11	37.2	43	22.5	-20.5	None

**Glansevern Arms New Property: Amenity Hours**

Wind Speed (m/s)	Background Noise (Sept-Oct 2013) LA90 dB	ETSU Limit LA90 dB <sub>10mins</sub>	Mode 0 Predicted Turbine Noise LA90 dB <sub>10mins</sub>	Difference between turbine noise & ETSU-R-97 limit LA90 dB <sub>10mins</sub>	Level Above ETSU-R-97 Guidance
4	37.8	42.8	29.9	-12.9	None
5	38.3	43.3	33.2	-10.1	None
6	39.0	44.0	36.5	-7.5	None
7	39.9	44.9	38.4	-6.5	None
8	40.9	45.9	39.3	-6.6	None
9	42.1	47.1	39.2	-7.9	None
10	43.4	48.4	37.9	-10.5	None
11	44.7	49.7	37.5	-12.2	None

**Glansevern Arms New Property: Night-time**

Wind Speed (m/s)	Background Noise (Sept-Oct 2013) LA90 dB	ETSU Limit LA90 dB <sub>10mins</sub>	Mode 0 Predicted Turbine Noise LA90 dB <sub>10mins</sub>	Difference between turbine noise & ETSU-R-97 limit LA90 dB <sub>10mins</sub>	Level Above ETSU-R-97 Guidance
4	36.3	41.3	29.9	-11.4	None
5	36.7	41.7	33.2	-8.5	None
6	37.4	42.4	36.5	-5.9	None
7	38.2	43.2	38.4	-4.8	None
8	39.3	44.3	39.3	-5.0	None
9	40.5	45.5	39.2	-6.3	None
10	41.7	46.7	37.9	-8.8	None
11	43.0	48.0	37.5	-10.5	None



### Siop Newydd: Amenity Hours

Wind Speed (m/s)	Background Noise (Sept-Oct 2013) LA90 dB	ETSU Limit LA90 dB <sub>10mins</sub>	Mode 0 Predicted Turbine Noise LA90 dB <sub>10mins</sub>	Difference between turbine noise & ETSU-R-97 limit LA90 dB <sub>10mins</sub>	Level Above ETSU-R-97 Guidance
4	37.8	42.8	30.8	-12.0	None
5	38.3	43.3	34.1	-9.2	None
6	39.0	44.0	37.4	-6.6	None
7	39.9	44.9	39.3	-5.6	None
8	40.9	45.9	40.2	-5.7	None
9	42.1	47.1	40.1	-7.0	None
10	43.4	48.4	38.8	-9.6	None
11	44.7	49.7	38.4	-11.3	None

### Siop Newydd: Night-time

Wind Speed (m/s)	Background Noise (Sept-Oct 2013) LA90 dB	ETSU Limit LA90 dB <sub>10mins</sub>	Mode 0 Predicted Turbine Noise LA90 dB <sub>10mins</sub>	Difference between turbine noise & ETSU-R-97 limit LA90 dB <sub>10mins</sub>	Level Above ETSU-R-97 Guidance
4	36.3	41.3	30.8	-10.5	None
5	36.7	41.7	34.1	-7.6	None
6	37.4	42.4	37.4	-5.0	None
7	38.2	43.2	39.3	-3.9	None
8	39.3	44.3	40.2	-4.1	None
9	40.5	45.5	40.1	-5.4	None
10	41.7	46.7	38.8	-7.9	None
11	43.0	48.0	38.4	-9.6	None

**Bryn Gwy: Amenity Hours**

Wind Speed (m/s)	Background Noise (Sept-Oct 2013) LA90 dB	ETSU Limit LA90 dB <sub>10mins</sub>	Mode 0 Predicted Turbine Noise LA90 dB <sub>10mins</sub>	Difference between turbine noise & ETSU-R-97 limit LA90 dB <sub>10mins</sub>	Level Above ETSU-R-97 Guidance
4	37.8	45.0	31.4	-13.6	None
5	38.3	45.0	34.7	-10.3	None
6	39.0	45.0	38.0	-7.0	None
7	39.9	45.0	39.9	-5.1	None
8	40.9	45.9	40.8	-5.1	None
9	42.1	47.1	40.7	-6.4	None
10	43.4	48.4	39.4	-9.0	None
11	44.7	49.7	39.0	-10.7	None

**Bryn Gwy: Night-time**

Wind Speed (m/s)	Background Noise (Sept-Oct 2013) LA90 dB	ETSU Limit LA90 dB <sub>10mins</sub>	Mode 0 Predicted Turbine Noise LA90 dB <sub>10mins</sub>	Difference between turbine noise & ETSU-R-97 limit LA90 dB <sub>10mins</sub>	Level Above ETSU-R-97 Guidance
4	36.3	45	31.4	-13.6	None
5	36.7	45	34.7	-10.3	None
6	37.4	45	38.0	-7.0	None
7	38.2	45	39.9	-5.1	None
8	39.3	45	40.8	-4.2	None
9	40.5	45.5	40.7	-4.8	None
10	41.7	46.7	39.4	-7.3	None
11	43.0	48.0	39.0	-9.0	None

### Gwyn-y Nant: Amenity Hours

Wind Speed (m/s)	Background Noise (Sept-Oct 2013) LA90 dB	ETSU Limit LA90 dB <sub>10mins</sub>	Mode 0 Predicted Turbine Noise LA90 dB <sub>10mins</sub>	Difference between turbine noise & ETSU-R-97 limit LA90 dB <sub>10mins</sub>	Level Above ETSU-R-97 Guidance
4	37.8	42.8	29.0	-13.8	None
5	38.3	43.3	32.3	-11.0	None
6	39.0	44.0	35.6	-8.4	None
7	39.9	44.9	37.5	-7.4	None
8	40.9	45.9	38.4	-7.5	None
9	42.1	47.1	38.3	-8.8	None
10	43.4	48.4	37.0	-11.4	None
11	44.7	49.7	36.6	-13.1	None

### Gwyn-y Nant: Night-time

Wind Speed (m/s)	Background Noise (Sept-Oct 2013) LA90 dB	ETSU Limit LA90 dB <sub>10mins</sub>	Mode 0 Predicted Turbine Noise LA90 dB <sub>10mins</sub>	Difference between turbine noise & ETSU-R-97 limit LA90 dB <sub>10mins</sub>	Level Above ETSU-R-97 Guidance
4	36.3	41.3	29.0	-12.3	None
5	36.7	41.7	32.3	-9.4	None
6	37.4	42.4	35.6	-6.8	None
7	38.2	43.2	37.5	-5.7	None
8	39.3	44.3	38.4	-5.9	None
9	40.5	45.5	38.3	-7.2	None
10	41.7	46.7	37.0	-9.7	None
11	43.0	48.0	36.6	-12.6	None

**Glanrhyd: Amenity Hours**

<b>Wind Speed (m/s)</b>	<b>Background Noise (Sept-Oct 2013) LA90 dB</b>	<b>ETSU Limit LA90 dB<sub>10mins</sub></b>	<b>Mode 0 Predicted Turbine Noise LA90 dB<sub>10mins</sub></b>	<b>Difference between turbine noise &amp; ETSU-R-97 limit LA90 dB<sub>10mins</sub></b>	<b>Level Above ETSU-R-97 Guidance</b>
4	37.8	45.0	31.5	-13.5	None
5	38.3	45.0	34.8	-10.2	None
6	39.0	45.0	38.1	-6.9	None
7	39.9	45.0	40.0	-5.0	None
8	40.9	45.9	40.9	-5.0	None
9	42.1	47.1	40.8	-6.3	None
10	43.4	48.4	39.5	-8.9	None
11	44.7	49.7	39.1	-10.6	None

**Glanrhyd: Night-time**

<b>Speed (m/s)</b>	<b>Background Noise (Sept-Oct 2013) LA90 dB</b>	<b>ETSU Limit LA90 dB<sub>10mins</sub></b>	<b>Mode 0 Predicted Turbine Noise LA90 dB<sub>10mins</sub></b>	<b>Difference between turbine noise &amp; ETSU-R-97 limit LA90 dB<sub>10mins</sub></b>	<b>Level Above ETSU-R-97 Guidance</b>
4	36.3	45	31.5	-13.5	None
5	36.7	45	34.8	-10.2	None
6	37.4	45	38.1	-6.9	None
7	38.2	45	40.0	-5.0	None
8	39.3	45	40.9	-4.1	None
9	40.5	45.5	40.8	-4.7	None
10	41.7	46.7	39.5	-7.2	None
11	43.0	48.0	39.1	-8.9	None