
**THREE OAKS RENEWABLE
ENERGY PARK
EXTENSION**

**Environmental
Statement Appendix 9.6: Vestas
V117 Sound Power Data**

MAY 2026



Appendix 9.6 Vestas V117 Sound Power Data

3.2 Results V117 4.2 MW, PO1

Frequency	Hub height wind speeds [m/s]																	
	3 m/s	4 m/s	5 m/s	6 m/s	7 m/s	8 m/s	9 m/s	10 m/s	11 m/s	12 m/s	13 m/s	14 m/s	15 m/s	16 m/s	17 m/s	18 m/s	19 m/s	20 m/s
6.3 Hz	13.1	12.6	13.2	19.7	25.9	31.6	35.8	36.7	36.9	37.3	38.0	38.8	39.4	40.0	40.4	40.9	41.2	41.7
8 Hz	20.0	19.7	20.3	26.5	32.4	37.8	41.7	42.6	42.8	43.1	43.8	44.5	45.0	45.5	45.9	46.3	46.6	47.0
10 Hz	26.1	25.9	26.7	32.5	38.1	43.2	46.9	47.9	48.0	48.3	48.9	49.5	50.0	50.4	50.8	51.1	51.4	51.7
12.5 Hz	32.0	31.9	32.7	38.2	43.5	48.3	51.9	52.8	53.0	53.3	53.7	54.3	54.7	55.0	55.3	55.7	55.9	56.2
16 Hz	38.0	38.0	38.9	44.1	49.1	53.7	57.1	58.0	58.2	58.4	58.8	59.2	59.6	59.9	60.1	60.4	60.6	60.8
20 Hz	43.2	43.3	44.2	49.1	53.9	58.2	61.5	62.5	62.6	62.8	63.1	63.5	63.7	64.0	64.2	64.4	64.6	64.8
25 Hz	48.0	48.2	49.2	53.9	58.4	62.5	65.7	66.6	66.7	66.8	67.1	67.4	67.7	67.9	68.1	68.2	68.4	68.5
31.5 Hz	52.7	53.0	54.0	58.4	62.7	66.6	69.7	70.6	70.7	70.8	71.0	71.3	71.5	71.6	71.8	71.9	72.0	72.1
40 Hz	57.2	57.5	58.6	62.8	66.9	70.6	73.5	74.4	74.5	74.6	74.8	74.9	75.1	75.2	75.3	75.4	75.5	75.6
50 Hz	61.0	61.4	62.6	66.6	70.4	74.0	76.8	77.7	77.8	77.8	78.0	78.1	78.2	78.3	78.4	78.5	78.5	78.6
63 Hz	64.7	65.2	66.4	70.1	73.8	77.2	79.9	80.9	80.9	80.9	81.0	81.1	81.2	81.2	81.3	81.4	81.4	81.4
80 Hz	68.1	68.6	69.9	73.5	77.0	80.3	82.9	83.8	83.8	83.8	83.9	83.9	84.0	84.0	84.0	84.1	84.1	84.1
100 Hz	71.0	71.6	72.8	76.3	79.7	82.8	85.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3
125 Hz	73.6	74.2	75.4	78.7	82.0	85.0	87.5	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4
160 Hz	76.0	76.6	77.9	81.1	84.3	87.2	89.6	90.5	90.5	90.5	90.5	90.4	90.4	90.4	90.4	90.3	90.3	90.3
200 Hz	77.9	78.6	79.9	83.0	86.0	88.9	91.2	92.1	92.1	92.1	92.1	92.0	92.0	91.9	91.9	91.9	91.8	91.8
250 Hz	79.5	80.1	81.4	84.5	87.5	90.2	92.6	93.5	93.5	93.4	93.4	93.3	93.3	93.2	93.2	93.1	93.1	93.1
315 Hz	80.8	81.5	82.8	85.7	88.7	91.4	93.7	94.6	94.6	94.5	94.5	94.4	94.3	94.3	94.3	94.2	94.2	94.1
400 Hz	81.8	82.4	83.7	86.6	89.5	92.2	94.5	95.4	95.4	95.4	95.3	95.2	95.2	95.1	95.1	95.0	95.0	95.0
500 Hz	82.4	83.0	84.3	87.2	90.1	92.8	95.0	95.9	95.9	95.8	95.8	95.7	95.7	95.6	95.6	95.6	95.5	95.5
630 Hz	82.6	83.3	84.5	87.4	90.3	93.0	95.2	96.1	96.1	96.1	96.0	96.0	96.0	95.9	95.9	95.8	95.8	95.8
800 Hz	82.6	83.2	84.4	87.3	90.2	92.9	95.1	96.0	96.0	96.0	96.0	96.0	95.9	95.9	95.9	95.9	95.9	95.8
1 kHz	82.2	82.8	84.0	86.9	89.8	92.6	94.8	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.6	95.6	95.6	95.6
1.25 kHz	81.5	82.0	83.2	86.2	89.1	91.9	94.2	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.2	95.2	95.2
1.6 kHz	80.3	80.9	81.9	85.0	88.0	90.9	93.2	94.1	94.1	94.1	94.2	94.2	94.3	94.3	94.3	94.3	94.4	94.4
2 kHz	79.0	79.4	80.5	83.6	86.7	89.6	92.0	92.9	92.9	92.9	93.0	93.1	93.2	93.2	93.3	93.4	93.4	93.4
2.5 kHz	77.3	77.7	78.7	81.9	85.1	88.1	90.5	91.4	91.4	91.5	91.6	91.8	91.9	92.0	92.0	92.1	92.2	92.2
3.15 kHz	75.2	75.5	76.4	79.8	83.1	86.3	88.7	89.6	89.6	89.7	89.9	90.1	90.2	90.4	90.5	90.6	90.7	90.8
4 kHz	72.7	73.0	73.8	77.3	80.8	84.0	86.6	87.4	87.5	87.6	87.8	88.1	88.3	88.4	88.6	88.7	88.8	88.9
5 kHz	70.0	70.2	71.0	74.6	78.3	81.7	84.3	85.1	85.2	85.4	85.6	85.9	86.2	86.4	86.6	86.7	86.8	87.0
6.3 kHz	66.9	67.0	67.7	71.5	75.3	78.9	81.6	82.4	82.5	82.7	83.0	83.4	83.7	84.0	84.2	84.4	84.6	84.8
8 kHz	63.4	63.4	63.9	68.0	72.0	75.7	78.5	79.3	79.5	79.7	80.1	80.5	80.9	81.2	81.5	81.7	81.9	82.2
10 kHz	59.7	59.6	60.1	64.4	68.5	72.5	75.4	76.2	76.3	76.6	77.1	77.6	78.0	78.4	78.7	79.0	79.2	79.5
A-wgt	92.2	92.8	94.0	97.0	100.0	102.8	105.1	106.0	106.0	106.0	106.0	106.0	106.0	106.0	106.0	106.0	106.0	106.0

Table 3: V117-4.2MW PO1 expected 1/3 octave band performance (Blades with serrated trailing edge)