

# Calculated Yield of Small Wind Turbines at Zeeland Test Site

May 26, 2009

Data on actual measured performance of small wind turbines at the Test Field for Small Wind Turbines in Zeeland, the Netherlands. The site has a very low average wind speed of only 3.8 m/s during the 2008 test period. The turbines, on the whole, performed poorly.

Calculated Yield of Small Wind Turbines at Zeeland Test Site									
Average Annual Wind Speed		3.8 m/s							
			Measured	Consumed	Net	Projected	Energy in the Wind	Total Efficiency	Average Annual Specific Yield
	Dia	m <sup>2</sup>	kWh/yr	kWh/yr	kWh/yr	kWh/yr	kWh/yr	η	kWh/m <sup>2</sup> /yr
Montana	5.0	19.6	2,691	-4	2,687	4,500	11,041	24%	140
Skystream	3.7	10.8	2,109	-24	2,085	1,360	6,046	34%	190
Passaat	3.1	7.6	578	0	578	1,250	4,299	13%	80
Turby		5.3	247	-115	132	1,485	2,979	4%	20
Swift	2.1	3.5	191	-66	125	1,250	1,948	6%	40
Airdolphin	1.8	2.5	393	-63	330	1,800	1,431	23%	130
Ampair	1.7	2.3	245	-15	230	1,500	1,276	18%	100
Energy Ball	1.0	0.8	73	0	73	350	442	17%	90

Source: Testveld Kleine WindTurbines Zeeland; 1 april 2008 tot en met 31 maart 2009.  
 Note: All units were installed on very short towers to comply with 15 m maximum height requirement.

Below is a photo, source unknown, of the test field in the Dutch province of Zeeland.

