



# Zeeland small wind turbine testfield

Summary results from test period  
1 April 2008 - 31 January 2009

Manufacturer	Ropatec	Southwest	Zephyr	Renewable Devices	Ropatec	Energy Ball	Fortis	Fortis	Turby	Ampair	Windwalker
<b>Model</b>	WRE 060	Skystream	Airdolphin	Swift	WRE 030	Energy Ball	Passaat	Montana	Turby	Ampair 600	Windwalker
<b>Price</b>	€ 39,162.00	€ 10,742.03	€ 17,548.00	€ 13,208.00	€ 30,862.00	€ 4,324.00	€ 9,239.16	€ 18,508.07	€ 21,350.00	€ 8,925.00	-
<b>Test results</b>											
Apr-08	48	175	42	22	1	6	56	265	6	1	0
May-08	41	171	29	12	20	4	39	207	27	7	0
Jun-08	25	106	17	7	8	2	33	169	19	19	0
Jul-08	29	118	19	8	11	3	33	170	19	18	0
Aug-08	39	143	24	12	18	4	42	200	22	21	0
Sep-08	32	133	21	6	6	2	31	155	13	16	0
Oct-08	0	151	28	17	27	4	45	199	20	18	0
Nov-08	53	260	49	44	78	8	75	311	34	31	0
Dec-08	44	196	38	20	43	4	47	229	36	26	0
Jan-09	69	240	44	42	75	7	62	256	6	27	0
Apr-Sep 08	380	1693	311	190	287	44	463	2161	202	184	0

Test results	Consumption in kWh										
Apr-Jan	3	14	40	53	14	0	0	3	82	10	52
<b>Test results</b>											
Apr-Jan	377	1679	271	137	273	44	463	2158	120	174	-52

## Indicative average windspeed and direction

Month	Windspeed in m/s	Wind direction in deg
Apr-08	3.5	184
May-08	3.7	109
Jun-08	3.4	230
Jul-08	3.4	210
Aug-08	3.6	214
Sep-08	3.4	187
Oct-08	3.2	194
Nov-08	4.4	186
Dec-08	3.7	172
Jan-09	4.4	148
Average	3.7	183

The price given is inclusive of tax and is for a complete package including erection, generator, mast, foundation, inverter, cabling, and installation.

The wind direction is given in degrees where North is 0, East is 90, South is 180, and West is 270.

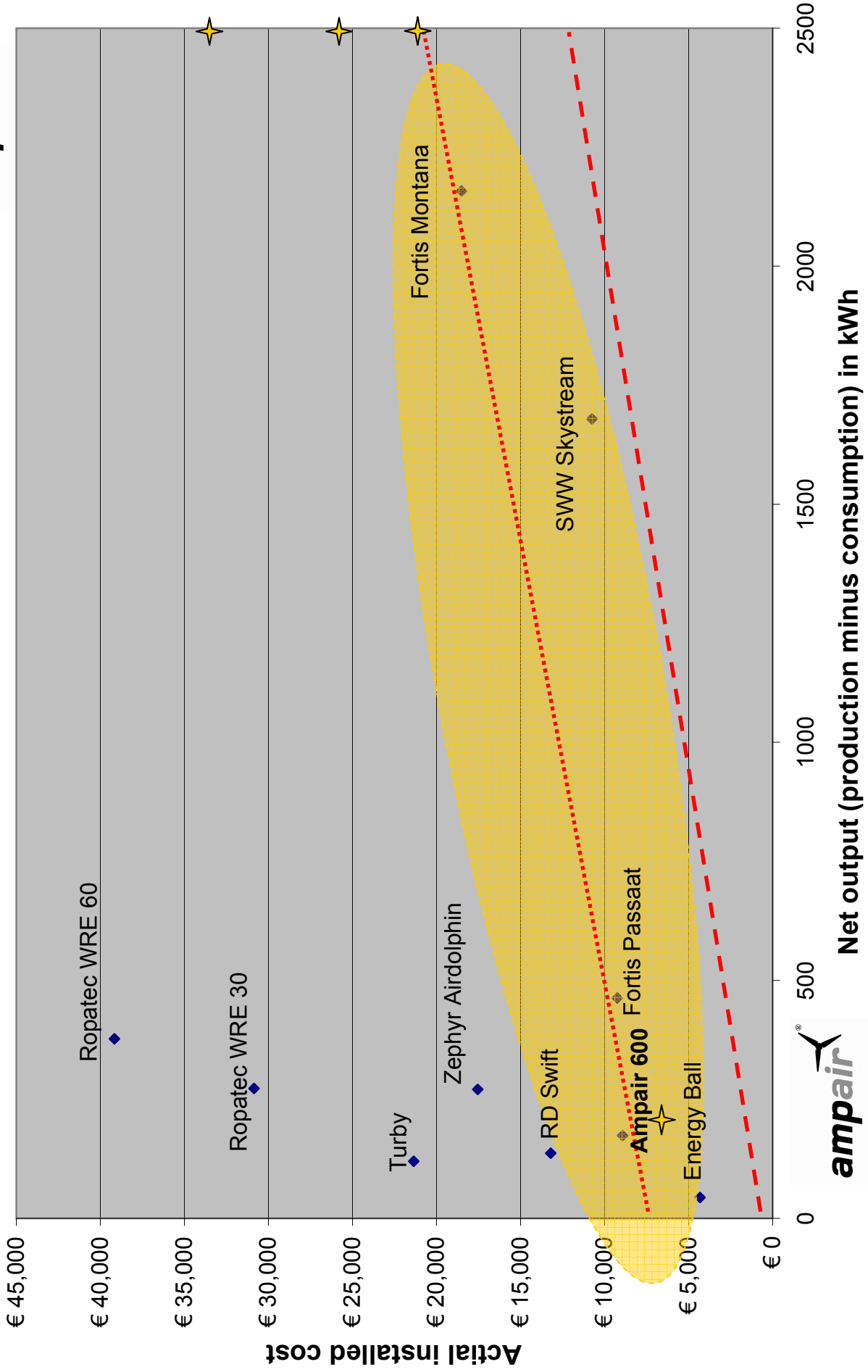
The wind direction and windspeed are only indicative data that are not officially certified.

This data has been translated from the Zeeland Windtest original which is in Dutch by David Sharman of Ampair.

The original kWh data has concealed decimal point data for the kWh and so there are slight discrepancies.

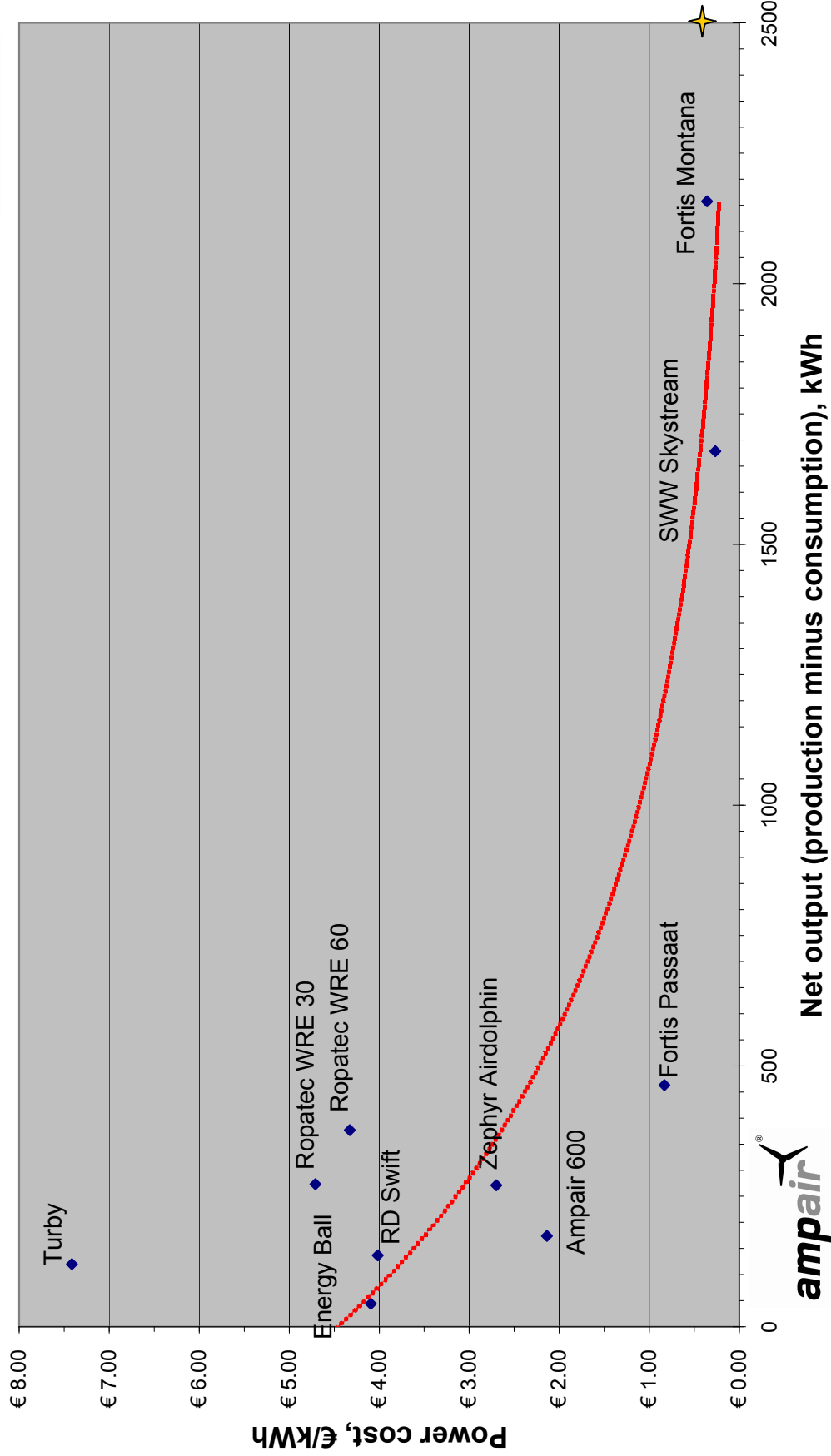


### Cost effectiveness per Zeeland results - production vs total cost



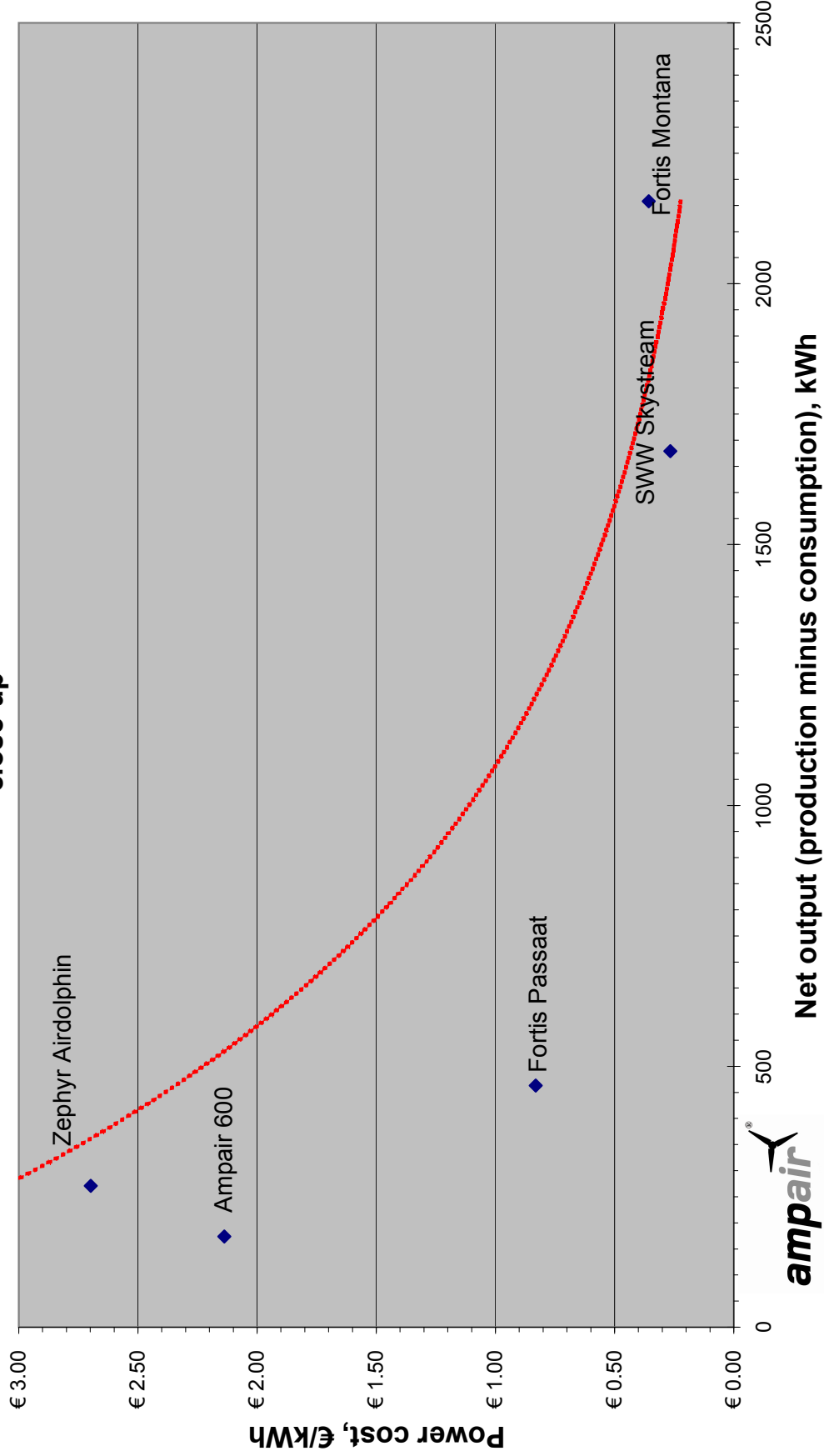


### Cost effectiveness per Zeeland results - production vs power cost





### Cost effectiveness per Zeeland results - production vs power cost close-up





### Efficiency comparison (kWh/yr/m2)

