Geoff Thomas's suggestions:
How to Cheaply Monitor the Wind Resources at your Home
Before buying a cheap weather station.

Geoff Thomas, Advanced Wind Technologies, Australia has suggested the following steps to assessing the wind energy potential of your home:

"Hi Mel, just to share again my humble experience of providing a copy of the beaufort scale to potential wind gen customers, - I did suggest this before on this list but had no way to provide the simple and free document to the list.
However now it is attached so you can see that if the customer is prepared to wander outside a couple of times a day at the same time he/she can work up a history of observations which will be a good reality check on the "it is always windy here" comment which often arises because you notice the wind when it is blowing, but not when it is not.
Should a series of observations look reasonably positive, the next step can be a cheap weather station or even a marine hand held device, (often even cheaper,) by which the person can fine tune their Beaufort obs.
You can see hopefully that a conscientious person can even have reasonable confidence to purchase a turbine if he has good beaufort results and especially if he can check them against local weather info or your maps.
Hoping to have been of assistance on this subject, Cheers, Geoff Thomas, Advanced Wind Technologies.
Australia"

In the event that you want to go on to the next step – wind speed monitoring ON THE CHEAP please take into account this comments by Roger Dixon.

"If you are hooking up a grid connect net metering system a wind site assessment for systems up to 1 MW or so works very well. The power you produce and use negates the retail cost of electric and any excess power is "stored" on the grid at retail rate for your use at a later date. On the grid at retail, off the grid at retail. The most bang for your buck. If net metering is not possible or if you are planning to sell power at the avoided cost or wholesale rate with a larger system, then the actual wind data numbers at a particular site will need to be crunched more closely. This is why wind farms do onsite monitoring at various locations and different heights for a 2-3-5 year period, using met towers that are 200'-300' tall. In this scenario a

½ cent difference in the price/kWh and the actual estimated production can make or break a project over the course of 20 years.

For residential turbines (and small wind in general) an anemometer system installed for a year is a waste of time and money, especially since most of those wind monitoring installations are done "on the cheap" by home owners wanting to save a few dollars. Nothing wrong with saving a couple of bucks, but this invariably leads to a short tower located more times than not below the top of the surrounding obstructions. This produces inaccurate data, now taken as Gospel, and can skew what might have been a decent installation into being a non-installation.

The same siting conditions exist for wind data collection as they do for wind turbine installation. The data collection instrumentation must be at least 30' above the highest obstacle within a 500' radius, i.e. the same height as the turbine will be. What *is* costly is putting up wind data collection system for a small wind installation at the correct height to obtain useable data. It far exceeds the $300-$500, plus travel expenses, normally charged (what I am aware of) by Certified Wind Site Assessors for a residential Wind Energy Site Assessment. Decent instrumentation costs more than that by itself. Add in the tower, guy wires and installation time and you are at least 2-3 times that amount if not more. "

SEE ALSO PAGE 3

BEAUFORT SCALE

DESCRIPTION	EFFECT ON LAND	EFFECT ON SEA	POTENTIAL WAVE HEIGHT	SPEED EQUIVALENT	SYMBOL ON WEATHER MAP
0 Calm	Smoke rises vertically	Surface looks like a mirror	Flat	0 - 0.2 m/s < 1 knot	
1 Light air	Smoke follows wind; wind vanes do not work	Ripples can be seen	5 cm	0.3 - 1.5 m/s 1 - 3 knots	
2 Light breeze	Leaves rustle, wind felt on face	Small wavelets with glassy appearance	10 cm	1.6 - 3.3 m/s 4 - 6 knots	
3 Gentle breeze	Leaves and twigs in constant motion; lightflag will extend	Large wavelets and crests begin to break	60 cm	3.4 - 5.4 m/s 7 - 10 knots	
4 Moderate breeze	Raises dust and loose paper; small branches are moved	Small waves and some whitecaps	1.5 m	5.5 - 7.9 m/s 11 - 16 knots	
5 Fresh breeze	Small leafy trees begin to sway; inland waters form crested wavelets	Moderate sized waves and many whitecaps	2.5 m	8 - 10.7 m/s 17 - 21 knots	
6 Strong breeze	Large branches in motion	Large waves begin to form *Bureau of Meteorology issues a Strong wind warning at 25 knots	4.5 m	10.8 - 13.8 m/s 22 - 27 knots	
7 Near gale	Whole trees in motion and some difficulty walking into the wind	Sea heaps up and white foam from breaking waves is blown in streaks Visibility at sea becomes impaired	6.5 m	13.9 - 17.1m/s 28 - 33 knots	
8 Gale	Twigs break off trees; difficulty in walking	Moderately high waves break and form spindrift; well defined streaks	10 m	17.2 - 20.7 m/s 34 - 40 knots	
9 Strong gale	Structural damage can occur	Large waves with crests rolling over; spray affecting visibility; dense wind streaks	14 m	20.8 - 24.4 m/s 41 - 47 knots	
10 Storm	Trees uprooted; severe structural damage may occur	Very large waves with long overhanging crests; sea is chaotic and tumbling and takes on a dense white appearance	19 m	24.5 - 28.4m/s 48 - 55 knots	
11 Violent storm	Rare; widespread damage	Small-medium sized ships may be temporarily blocked from view by waves Foam everywhere; large parts of waves blown into froth	up to 25 m	28.5 - 32.6m/s 56 - 63 knots	
12 Hurricane		Air filled with foam and spray; severely impaired visibility	25 m	>32.7m/s >64 knots