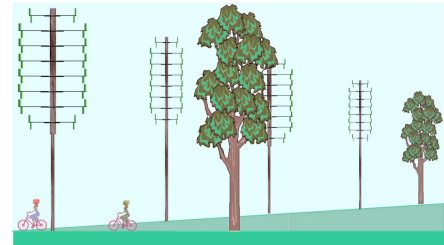


Wind-Do



FAQ

6. Describe your product in an elaborate way.

You will find in our web sited a pictures page that gives a good image of Wind-Do concepts.

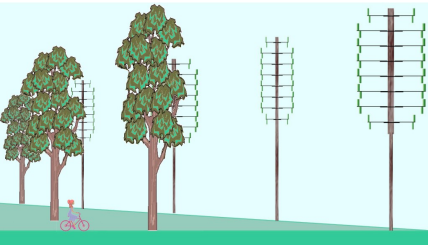
A wind turbine must be design in order to balance five components: The turbine, the generator/gear box, the mass, the foundation, and the wiring/power electronic.

The modular wind turbines of Wind-Do will always used the same standard components, except for the turbine that will be adapted to specific purpose.

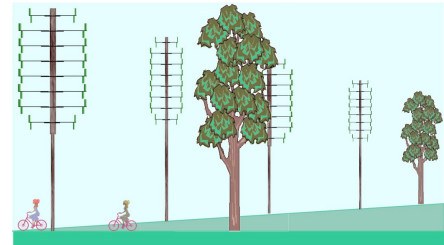
Our basic 25 square meters modular wind turbine will be build to be stopped with wind above 17 m/s. At this speed, the wind have 3,000 watts of kinetic energy per sq. m.; the shear stress on the structure is then proportional to the 75,000 watts include in incoming wind. If the same structure use a 50 sq.m. turbine, the same shear stress will come from a wind that has 1,500 watts of kinetic energy per sq.m. ($3000\text{ W} \times 25\text{ Sq.m} = 1500\text{ W} \times 50\text{ Sq.m}$) This engine must then be stopped when the wind reach 13.5 m/s. With the same calculation, a 100 sq.m. wind turbine will have to be stopped at 10.7 m/s.

With this incoming energy, we can expect to produce a 20 Kw torque for the generator. This means that 17 m/s wind will produce 20 KW on the 25 Sq.m. turbine. Same power will be produce with wind of 13.5 m/s on an engine that have a 50 Sq.m. turbine, or with wind of 10.7 m/s with a turbine of 100 Sq.m.

In a site with low wind, (An average of 4.5 m/s) we will have wind at and below 10 m/s 97% of the time. It is easy to understand that those sites will receive only wind turbines of 100 Sq.m. or more. (We have not yet set an upper limit for the turbine.)



Wind-Do



Calculation is working also in the other direction. A 5 Sq.m. turbine will harness wind up to 29 m/s, which will be useful for very high wind site like in Newfoundland and Patagonia.

A standard Wind-Do wind farm will count 100 or more wind turbines. Base on wind profile of each site, we can optimize the electricity generated with a mix of turbines that will harness different sizes of wind.

Low wind site will only see large turbines of 100 and 125 Sq.m. This kind of configuration will also be useful to counterbalance / boost existing wind farms. Average and good wind sites will be optimizing with a mix of 125, 100, 75, 50 or 25 Sq.m. wind turbines. Very high wind sites will also count 15, 10 or 5 Sq.m. engines. There is no significative cost variation for any kind of mixes of our wind turbines as basically, it is all the same apparatus.