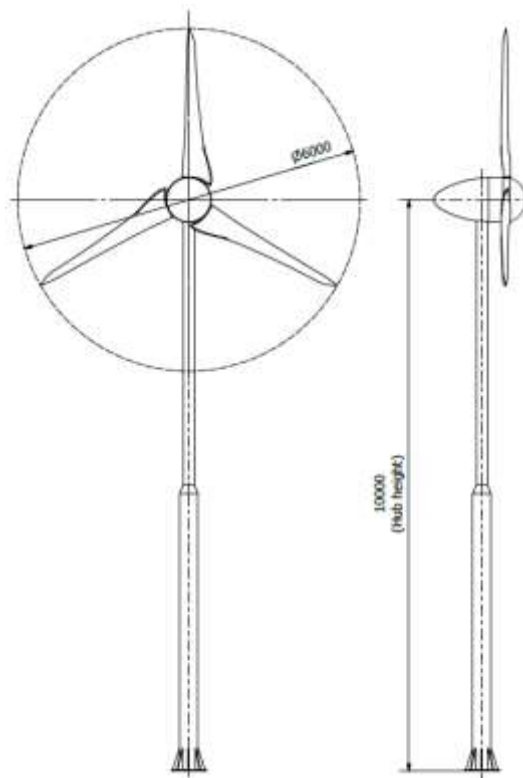


my!Wind

10 kW wind turbine

Site planning



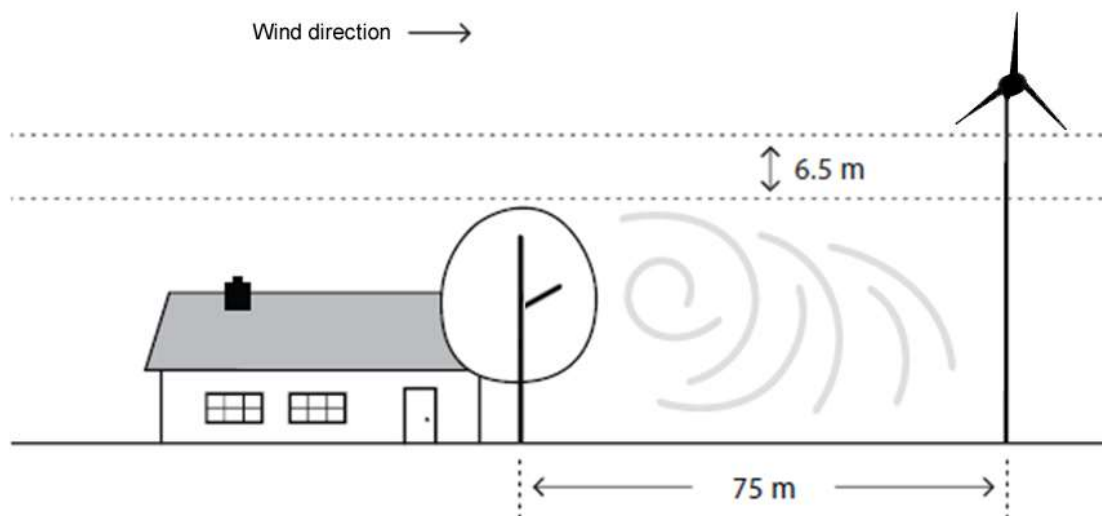
Before installing a wind turbine generally two important decisions have to be made: where the turbine is placed and how tall should be the used tower. Below are some pointers about the various aspects that should be considered. Most important of course is to have **sufficient wind!**

Wind speed

my!Wind 10 kW turbine is a IEC (International Electro-technical Commission) Class II wind turbine. This means that the turbine is designed to operate at sites where the annual average wind speed at hub height does not exceed 8.5 m/s. Installing my!Wind at a site with higher wind speed will accelerate component wear, require more frequent inspections and reduce the turbine lifetime in general. However, the closer the wind speed is to 8.5 m/s, the more energy turbine will produce and the more profitable it becomes. It is up to the future turbine owner to obtain suitable predictions about the annual average wind speed in order to understand whether the turbine is at all profitable and if it can operate safely. Wind atlases, nearby weather stations and direct measurement are helpful in this matter.

Turbulence

The best location to install a wind turbine is often a compromise. Local building restrictions, the height of surrounding structures, length of power cables and available open area may require the my!Wind to be installed in a less than optimum location. In general my!Wind will produce more power if installed on a taller tower. However, towers are expensive so it is important to balance performance to installation costs, in order to achieve the lowest cost of energy and the quickest payback.



For optimal performance, install my!Wind in such a manner that blade tip at its lowest position is 6.5 m above any surrounding object within a 75 m radius. For example in case a 10 m tower is used, there should be no objects in a 75 m radius, as the tip of the 3 m blade is located at 7 m above the ground.

In addition keep in mind where you plan to install the inverter system and gain access to the grid if it planned to have a grid connected turbine. Lengthy power cables can substantially contribute to the installation costs and generate higher losses in the energy conversion process.

Local requirements

Building codes and installation regulations may vary greatly depending upon country, state, and local rules. Be sure to obtain all the required building permits before beginning installation and make sure you understand all inspection and installation requirements.

Additionally, be sure to contract the local electrical utility company. Many utility companies will require an "Interconnection Agreement" prior to installation.

Safety and environment

Although, my!Wind has been engineer to withstand wind gusts up to 59,5 m/s, the rotating blades may be damaged by tree branches or other flying object during storms. The blades are constructed from laminated fiberglass and are extremely durable, therefore they can cause severe injury in the unlikely event that they make contact with a human being. During strong winds, the rotor has a high rotational speed. Even though, the blades on the rotor are engineered to minimize noise production, certain individuals may still be disturbed by the noise. The shadows of wind turbines in high locations may fall on neighbouring houses and flickering shadows of the blades can be very disturbing. For these reasons, we recommend that you install the wind turbine in a location away from people.

In addition, unforeseen circumstances may cause the wind turbine mast to topple or the wind turbine itself to fall. Keep these possibilities in mind when selecting a location for the installation.

When choosing a location be aware that the turbine also has to be erected. Therefore, make sure that there is enough space around the site to carry out the erection in a safe manner.

Before, during and after the selection process it is always possible to consult with my!Wind representatives or resellers about the possible sites and receive their feedback. A close co-operation will ensure the best economical and safety related outcome.