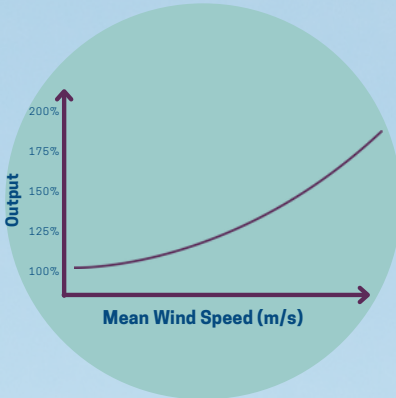


Factors that Affect Wind Power Generation



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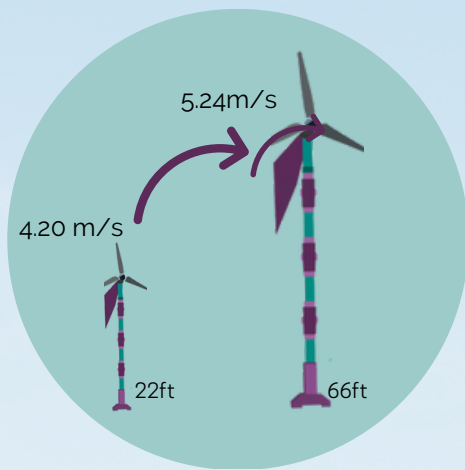


Wind Speed

Wind speed directly correlates to the amount of power derived from the turbine. Higher wind speeds translate into increased rotations of the turbine's blades which allows more electricity to be generated. In short, the higher the wind speed in your area the more power you'll be able to generate with your turbine.

Air Density

Air density affects wind power generation and varies in a latitudinal manner. Northern locations have a higher air density in comparison to more southern locations. Higher air density or heavier air allows more power to be produced for the same wind speed.



Tower Height

The height of the tower affects the wind speed that your turbine experiences. In general, the higher into the atmosphere you go, the faster wind flows. To illustrate this, see the real data of wind speeds in Saskatchewan, Canada at varying heights. The tradeoff lies in that taller towers generally cost more than their shorter counterparts.

Turbine Efficiency

Turbine efficiency refers to how well a turbine converts wind into usable electricity. Some turbines rate better than others in this respect. The AnorraTM wind turbine system boasts a 40% efficiency rating in its class.



1. In contrast, solar panels are generally able to convert 15% to 22% of solar energy into usable electricity. This is affected by placement, angle to the sun, weather conditions, and more.