

The Sauer Energy Vertical Axis Wind Turbine (VAWT) is highly efficient because of the maximum lift produced by the power generating blades as they are moved by the wind. The blades of the turbine are designed to minimize drag as much as possible. Thus, efficiency increases with the degree of differential between high lift and low drag.

The rotor shaft of the VAWT will be directly connected to a generator to convert over to kinetic energy to usable electricity. The narrow profile of the blades will produce less aerodynamic drag.

The turbine torque is gained by increased size of blades and distance in mass, rather than vertical height. The force produced by the volume of the wind is directly applied to the rotational axis of the turbine, thereby extracting maximum power at lower wind speeds.

Larger wind-swept area will result in slower rotational speed, which will create a greater torque and more power flow. To increase the power flow of our VAWT, the size of the turbine blades must be increased to resist more of the wind's mass. Thus, scalable models can adapt to the various needs.

Sauer Energy considers lift to be a much more powerful force in harnessing and capturing kinetic energy. More mass equals kinetic energy.