



“Wind power led all technologies in new power generation in 2015”, said GWEC Secretary General Steve Sawyer. Wind energy is now the world’s fastest growing source of energy. The forecast in the next twenty years is that it will expand at exorbitant rates.

The United States Department of Energy (DOE), the American Wind Energy Association (AWEA), the National Renewable Energy Laboratory (NREL) have all stated that 20% of the nation’s total consumable electricity can come from renewable wind energy within the next twenty years. This would result in cumulative wind turbine sales of over \$250 billion to \$500 billion.

The growth is driven from numerous factors in which realization that oil, natural gas and coal supplies are diminishing while the world demand is increasing. Taken into further consideration is that currently the use of these contribute to pollution and global warming, not to mention that the cost to produce and the rising prices have exploited the end user. The use of nuclear power has a substantial risk for large scale side effects. Currently, the world has refocused on renewable energy resources, of which wind energy is in the forefront.

One of the most compelling reasons wind turbines are expected to continue their strong growth rate for decades to come is that the cost per kWh of energy produced is expected to be the cheapest source of energy.

Like many other alternative energies, wind energy does not require any fuel. Therefore, it can generate electricity as long as the wind blows. Wind energy is also one of the cleanest forms of alternative energy. In fact, according to the United States Department of Energy's Wind Energy Program, a single utility scale wind turbine (500 kW) displaces approximately 500 tons of CO₂ emissions annually, based on the current U.S. energy mix's average emissions.

According to the AWEA, clean wind energy avoids significant carbon dioxide (CO₂) emissions annually by displacing generation from fossil fuel power plants. In 2015, the 191 million megawatt-hours (MWh) generated by wind energy avoided an estimated 132 million metric tons of CO₂, the equivalent of reducing power sector CO₂ emissions by 6%, or the equivalent emissions of 28.1 million cars.

Sauer Energy's VAWT systems intend to be among the lowest cost wind energy producers. Our turbines can be produced and manufactured on a large scale in fabrication factories throughout the world. The installation cost of our turbines will be considerably less the cost of horizontal axis wind turbines. Because of their direct-drive system, they are less expensive to maintain and repair. Their key parts are few and at ground level.

The world over, governments are taking action to advance renewable wind energy. More and more states are mandatorily commissioning renewable energy. At the local government level, utility companies are being obligated to provide renewable energy to meet escalating demand. An international trading program has begun for carbon and renewable energy credits, thus providing the full support of wind energy. Lucrative incentives in the form of rebates and tax credits are being offered to offset the initial expense and demonstrate how committed our government is to renewable energy.

The availability and reliability of wind energy will expand the use where and when it is needed. Present technological trends will likely lend to a long-term future where wind provides the majority of the primary power resources for the planet. Sauer Energy is planning to be instrumental in providing a significant percentage of fulfilling this output.

We cannot forget the one and only fact that we must take care of our earth and the earth will take care of us.

