



GREEN WARRIOR

SOLAR AND WIND



WIND ENERGY

Wind power is arguably today's fastest growing energy sector. Wind power is an exciting feature of the quest to produce 20% of all the US electric power needs through renewable sources by the year 2015.

Year 2007 saw the US add more wind power than any other country putting in a record breaking 5.250 MW. Asia, Europe, Latin America as well as islands of the world have additionally made large gains in wind power production.

Huge additional growth from wind power production continues to reveal its potential. Yet in spite of rapid wind power growth, the US has only tapped 1.6% of its total potential. Europe leads and yet has itself only tapped 13% of its potential from wind. It has been said that if the potential energy from wind alone (in the US) in just two of its windiest states were tapped and stored in the form of hydrogen or another energy fuel, all the electricity needs of the entire country would be met producing an energy independent nation.

Looking into the future, it is projected that the US will consolidate its position as the world's most active wind market. Asia, Europe, and Latin America show evidence of continued rapid growth as well. Green Warrior is positioned to move forward decisively in the wind power arena for the benefit of all in general and Green Warrior investors.

Evolution of Wind Energy



700 A.D.

Ancient Persian wind-powered grain mill



1200's

Traditional European windmill



1800's

American farm windmills used for pumping water

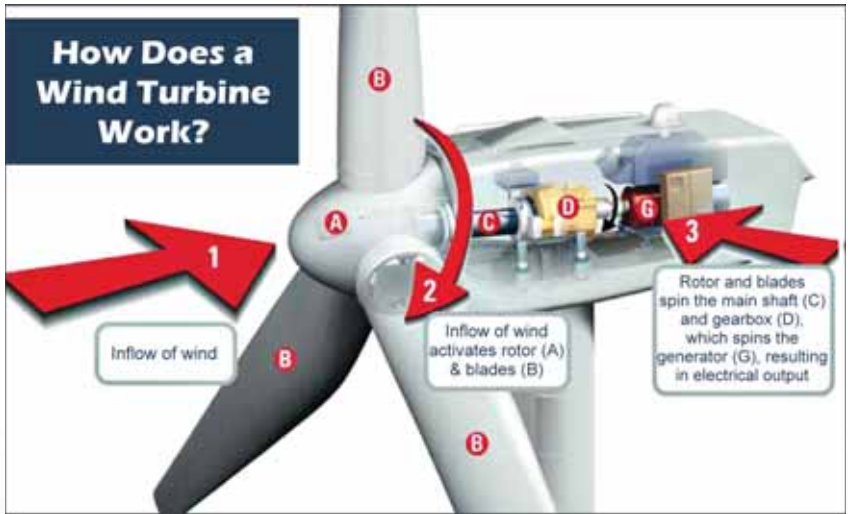


1990 +

The modern wind turbine that converts wind energy to electrical energy

Wind energy is expected to grow by \$5 billion per year in the United States to 2012 and eclipse \$20 billion per year by 2015.

- Wind energy, now considered mainstream, is the lowest cost source of new energy and the 2nd fastest growing source of power in the US, expected to grow by \$5 Billion per year in the US through 2012 and eclipse \$20 Billion of new capacity per year by 2015.
- On average, modern wind turbines produce about 35-43% of their rated capacity. Although wind produces only about 1.5% of world-wide electricity use, it is growing rapidly, increasing more than fivefold globally between 2000 and 2007.
- In several countries, it has achieved relatively high levels of penetration, accounting for approximately 19% of electricity production in Denmark, 9% in Spain and Portugal, and 6% in Germany and Ireland in 2007.
- The DOE has stated that wind could provide 5,800 quads of energy each year. That's about 15 times the current global energy demand.
- Wind power is a form of solar energy, as the sun heats parts of the Earth at different rates and creates weather patterns. A wind turbine converts kinetic energy from the wind into mechanical energy as the shaft (rotor) turns, and then into electricity by spinning a generator. At the end of 2007, worldwide nameplate capacity of wind-powered generators was 94.1 gigawatts.
- Wind can produce power in the evening while the sun is not shining.



In 2008 for the first time in history, wind energy surpassed all other forms of energy (coal, natural gas, nuclear, etc.) in terms of new added generation capacity in the USA and in Europe.

Plans are underway to develop a road map to power 20% of the nation's energy supply with wind by 2015, which represents an estimated \$500 billion of new wind installations.

A key component in the clean power revolution is **wind**. Green Warrior will be working with one of the leading experts in the field of wind and renewable energy.

Combining wind and solar systems is extremely advantageous due to the fact that when the sun is not shining, the wind is usually blowing. Wind systems can be added for certain customers such as municipalities, golf courses, and rural industrial and commercial businesses.

Vertical wind systems can be used in residential areas that need to comply with association CCR's.

By combining vertical wind energy with solar, we can increase the power production for our customers where geographically feasible and tax credits are advantageous. By combining wind with solar, we can collect energy from the radiation of the sun by day and the power of the wind by night, thus increasing the kilowatt output.



Wind Combined with Solar Energy

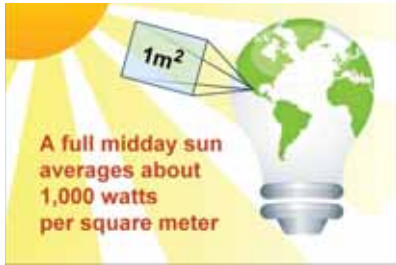


**Renewable,
Sustainable
Energy
Day and Night**



SOLAR ENERGY

Most countries in the world will be facing serious energy shortages in the near future. High energy consumption and the ever-increasing world population will force residents of many countries to confront the critical problem of dwindling domestic fossil energy supplies. Current dependence of the majority of countries on oil has important costs and portends future negative effects on national and international security and the economy. There are many other ways of using modern technology to make renewable and other alternate energy technologies work for us. One of the key renewable energy technologies is **photovoltaics (PV)**.



There is more than enough solar radiation available around the world to satisfy a vastly increased demand for energy. The total amount of energy irradiated from the sun to the earth's surface is enough to provide for annual global energy consumption 10,000 times over. If all this electricity were to be generated by means of PV systems with a modest average electricity output of 100kWh (electrical) per square meter per year, a total solar capture area of 150 x 150 kilometers would be required. A large part of this capture area could be situated on roofs and walls of buildings, and would not therefore occupy extra land area.

Photovoltaic systems have a number of merits and unique advantages over conventional power-generating technologies. PV systems can be designed for a variety of applications and operational requirements, they are modular, easily expandable, and transportable. Energy independence and environmental compatibility are two attractive features of PV systems. PV systems can be used for either centralized or distributed power generation. The fuel (sunlight) is free and no noise or pollution is created from operating PV systems. In general, PV systems which are well designed and properly installed require minimal maintenance, have long service lifetimes and are very reliable, usually warranted for twenty-five years with a life expectancy of 50 years.

SOLAR ELECTRICITY

Electricity can be generated from the Sun in several ways. Photovoltaics (PV) has been mainly developed for small and medium sized applications from the calculator powered by a single solar cell, to the PV power plant. Costs have dropped steadily and are now surprisingly affordable. For large-scale generation concentrating solar thermal power plants have been more common but new multi-megawatt PV plants have been built recently.



ENERGY STORAGE

Storage is an important issue in the development of solar energy because modern energy systems usually assume continuous availability of energy. Many existing and new technologies have been developed as backup power systems.

Solar energy can be stored at high temperatures using molten salts. Salts are an effective storage medium because they are low-cost, have a high specific heat capacity and can deliver heat at temperatures compatible with conventional power systems.

The Solar Two, the largest solar facility of its type in the US built in 1981 by the Department of Energy near Daguerre, California, used this method of energy storage allowing it to store 1.44 TJ in its 68 m³ storage tank with an annual storage efficiency of about 99%.

Off-grid PV systems have traditionally used rechargeable batteries to store excess electricity. With grid-tied systems, excess electricity can be sent to the transmission grid. Net metering programs give these systems a credit for the electricity they deliver to the grid. This credit is used to offset electricity provided from the grid when the system cannot meet demand, effectively using the grid as a storage mechanism.



Solar energy systems generally fall into two categories: 1) solar photovoltaics (PV) which convert sunlight directly into electricity at rates of up to 20% and 2) solar thermal which captures heat from the sun's rays to heat fluids or air.

PV includes solar shingles (thin and flexible, they become the roof), solar tiles, solar glass, solar roofing mattes for flat roofs, and rigid crystalline conventional solar panels.

The US passed historic legislation in October 2008 that extends the 30% federal investment tax credit for both residential and commercial solar installations through 2016. This was the most significant federal policy ever enacted for the solar industry. And yet it has gotten even better: the Stimulus packages allow the 30% to be a cash payment from the IRS to solar project owners regardless of tax appetite. The carbon Cap and Trade legislation and other proposed legislation will continue to enhance the economic security and longevity of the solar industry.



SOLAR ENERGY FACTS

- Solar technology can be building integrated (it becomes part of the building) solar shingles or it can be rolled on in the case of thin film photovoltaics.
- The distribution of solar energy on the surface of the planet, in full sun can reach a maximum of 1000 watts of energy per square meter and is fairly evenly spread in comparison to the availability of other sources of energy.
- Growing at 35-70% per year in the USA, solar is now the fastest growing power source.
- Solar energy is accessible to everyone and after the initial investment, operating costs are extremely low.
- The global distribution of solar energy coincides largely with regions of highest human settlement.
- Solar energy is reasonably predictable and the yearly yield is fairly consistent. On a continental level at any given time during the day, the sun is usually shining somewhere and, like wind energy, it can be distributed from region to region.
- The energy payback time (energy amortization) of solar electric and solar thermal technology is much less than the life expectancy of the equipment, which is generally more than 30 years. That makes these technologies serious producers of energy.
- Solar energy is not associated with any risks of oils spills, nuclear accidents or other man made environmental catastrophes, including climate change.
- Solar energy is good for national and international relationships. It avoids military conflict over oil, can reduce poverty and inequality and is not a terrorist target.



Solar energy is self-sufficient and promotes independent power avoiding black outs and brown outs.



330kW membrane roofing at the Coca Cola Bottling Plant in Los Angeles, CA.



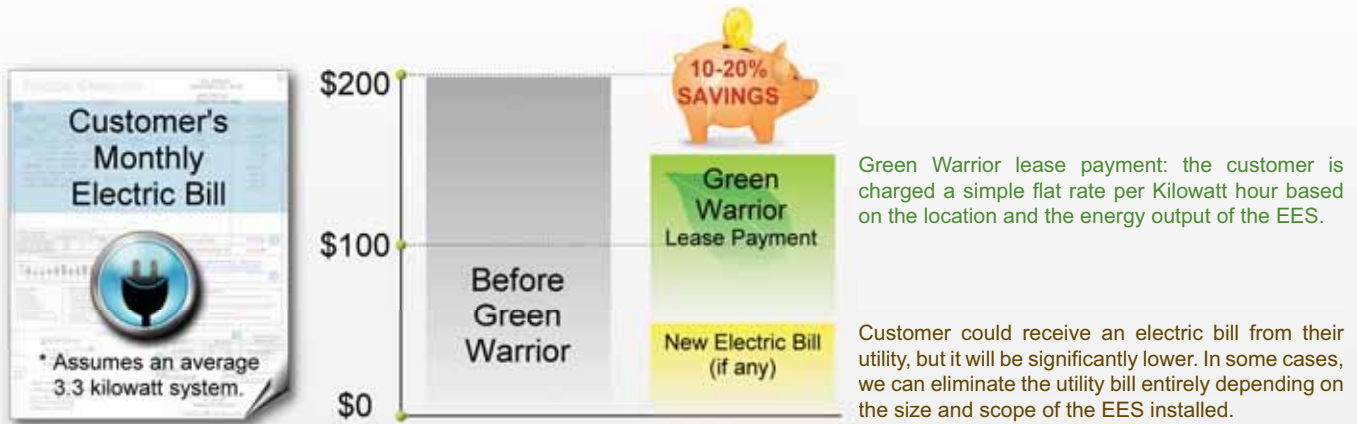
Space stations utilize solar technology which produce years of life supporting power

EMBEDDED ENERGY SYSTEMS

HOW DO EMBEDDED ENERGY SYSTEMS™ (EES) WORK?

Green Warrior's **Embedded Energy Systems™** will operate as the "on-site" utility for our customers. In other words, Green Warrior will own and operate the solar and/or wind system on the customer's property, and sell the energy to the customer on whose property we install the **EES**. The customer gets a 10-20% savings on the electricity produced by their on-site **EES** but do not have to spend tens of thousands of dollars – or more – to install the equipment. Green Warrior gets long-term monthly cash-flow in the form of 20-year Power Purchase Agreements from the customer and the carbon credits which are sold to 3rd party carbon trading buyers based on the output of energy from the **EES**. Green Warrior will also realize substantial up-front cash payments and tax benefits from federal, state, and local governments. These up-front payments often equal 60% to 80% of the installed cost of the **EES**.

YOUR UTILITY METER SPINS BACKWARDS



ONE PRODUCT, SUPER SIMPLE





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