

AN AFFORDABLE SOLUTION FOR RISING ENERGY COST:

A GUIDE TO SOLAR ENERGY:

Benefits of Solar

Solar Energy is about the future as well as the present. With unlimited potential, Solar Energy is a clean, efficient, and sustainable form of renewable energy. But Solar Energy is also a sound financial decision. With Solar panels powering your home, you'll see this every month when your electricity bill arrives. Finally, Solar Energy is a green decision- you'll feel good knowing that you will leave the world a greener, better place for your children.

Today, the worldwide demand for solar photovoltaic (PV) is greater than supply. It is one of the fastest growing forms of renewable in energy. As manufacturing becomes more efficient, the cost of PV systems continues to drop. Prices have reduces 25 fold over the last 20 years.

Commercially, even electrical utilities are looking to Solar for a more stable cost structure. Research has shown that solar can even be effective in Northern climates. In California, electricity rates are increasing at a rate 6.7% per year. Solar provides a hedge against future rate hikes. And in many counties, you can sell your surplus electricity back to the utility, generating a credit on your bill.

Not only is solar affordable, it is even more economical when you consider the alternative: the high costs of fossil fuel pollution and global warming. In recent opinion polls, Solar energy scored higher than all other forms of energy when participants were asked what type of energy is best for future generations. Photovoltaic systems produce electric power with no carbon dioxide (CO₂) emissions. The carbon emissions offset is calculated at approximately 7.5. tons of CO₂ over the twenty-five year guaranteed life of one PV module .

All in all, solar photovoltaic energy generation has a very bright future indeed

About Photovoltaic:

Anyone who has used a modern mathematical calculator can grasp the concept of photovoltaic (PV). It is simply the process of converting energy from the sun electricity that can power everything from household appliances and lights to commercial buildings and power plants.

In precisely the same as the small cells on hand-held calculators eliminate the need for batteries, PV can provide the world with a clean, reliable source of electricity and reduce our reliance on over-depleting fossil fuels.

The PV technology of the 21st century makes it possible. It employs layer of micro-fine crystalline silicon to convert sunlight into small electrical charges. This process is then multiplied thousands of times over to create, smaller than ever before, modules and systems that can generate enough electricity to power entire towns.

It is important to note that PV is different from the solar thermal energy used for heating or in hot water production. A single PV cell consists of two or more thin layers of semi-conducting material, most commonly crystalline silicon. When the silicon is exposed to the light small electrical charges are generated and conducted away by metal contacts as direct current (DC).

In order to maximize energy collection and conversion, single cells are connected together and housed in a module. These modules are building blocks of the PV systems and are, in turn, connected to generate usable volumes of electricity. In some instances an inverter is also used to convert low voltage DC into higher voltage AC power.

✚ SOLAR ENERGY & GLOBAL WARMING

Climate change is a rapidly advancing human crisis that threatens millions of lives, natural species and the environment, according to leading international scientist. Climate change predicts drastic negative effects if climate change continues at historic levels, including:

- Increase risk of extinction for up to 30% of the world's natural species by 2020 and total extinction of 40% of the world's species by 2080.
- Increased natural disasters – such as flood, wildfire and storms.
- Increased mortality from heat waves, floods and droughts.
- Destruction of coral reefs and melting of polar regions, raising sea levels by 13 to 20 feet.
- Millions of deaths worldwide and enormous increases in poverty and hunger.



Climate change is caused by the build-up carbon dioxide and other greenhouse gas emissions in the atmosphere.

Carbon dioxide is produced by human activities such as industrial processing, using fossil fuels as an energy source and destroying forests.

Which assist in removing dioxide from the atmosphere.

