

## Renewable Energy-The Time is Now

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Solar power offers a solution to all of those problems and more. Solar energy is derived from a completely renewable source and is infinitely more reliable than fossil fuels. Harnessing solar technology is a pollution-free alternative to standard fossil fuels and the production of solar energy is in no way harmful to the environment. Additionally, solar energy systems offer consumers an opportunity to enjoy a self-sufficient system with little or no operating costs while staying independent of most utility providers.

Technological advances have made solar power systems much more affordable in recent years and the mass production of the components has decreased installment costs. Systems that incorporate a backup battery system actually store the captured solar power and allow users to live off the utility grid entirely. Which means when the local utility company experiences a power outage, solar power consumers don't.

The growing urgency to reduce reliance on fossil fuels and increase the use of renewable energy sources has spurred legislation to offer economic incentives to solar energy users. The Database of State Incentives for Renewable Energy (DSIRE) offers a comprehensive listing of all state and federal incentive programs available to solar energy customers. The DSIRE database contains a precise listing of all required technologies as well as links to legislative actions, tax rebates, low interest loans, and grants and bond programs. The Energy Policy Act of 2005 (EPAAct) is the first policy offering residential users tax credit incentives for solar power use. Systems installed and in service between January 1 2006 and December 31 2008 may qualify for a tax credit equal to 30% of their costs. Systems installed after December 31, 2008 may qualify for a 10% reimbursement tax credit.

Solar power providers will work with customers to determine which system works best for their needs. Currently there are three system types available: the grid-tie system, which works in conjunction with a utility board provided meter system. In this case your solar powered system will actually turn your meter backwards when you're producing a surplus of power. This system is reliant on the utilities and during a utility power outage the customer also loses power. The second system is a grid-tie with battery backup. With this system, your surplus solar power is stored for future use, enabling you to operate during a utility power outage. The final system is completely independent of the local utility board. All of your energy needs are supplied by solar power and a battery backup system is in place to cache surplus power. Local utility boards in some areas will offer low-interest or long-term loans to customers for the purchase solar powered systems.