

Solar energy: The protection against energy inflation

As consumers struggle to manage unpredictable energy costs and America's national security is jeopardized by its continued dependence on foreign oil, Pennsylvania is investing \$665.9 million to urge the development of alternative and renewable energy sources to help consumers and small businesses conserve energy and use it more efficiently.

The state recently has introduced several tax incentives and programs, including the Pennsylvania Sunshine Solar Program, to provide incentives to small businesses and homeowners to invest in alternative energy sources like solar energy.



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With energy rates increasing at an average of 6.7 percent per year, the timing of the program and other federal energy tax credits couldn't be better. Solar energy offers a clean, efficient and sustainable form of renewable energy, plus it allows users to regain control of energy use and production while reducing the overall impact on the environment.

Solar energy also provides financial benefits, including eligibility for federal renewable energy tax credits (up to 30 percent of the cost of the system with no cap), a savings of up to 75 percent or more on energy costs, and substantial energy rebate incentives and revenue generating opportunities through the form of alternative energy credits — all providing an excellent return on investment and increased property values.

So how do solar energy systems works?

A certified installer will mount solar system modules on or near the home or business (modules must receive southern exposure in an unshaded area). The modules collect clean, safe energy from the sun and convert sunlight into energy quickly and simply — with no moving parts to wear out. An inverter box converts the solar electricity from DC current to AC, the correct form of electricity used.

Any excess energy is sent to the local utility company for credit. In fact, the energy meter will run backward when the system is generating more power than the home or business is using. Electricity generation is reflected in the utility bill as a reduction; with cost savings on every watt the solar system produces, even to the point where the energy bill is zero. A monitor will display up-to-date electrical production and usage, so you can see how much of the energy demand is being met by the solar system.

How can your home or small business benefit from the available tax incentives and solar program?

The state's Sunshine Solar Program includes up to \$100 million in incentives to help households and small businesses take advantage of solar energy technology. Rebates up to a maximum of 35 percent of the cost of project design, installation and equipment are available. The program encourages energy-conserving solar upgrades (including solar electric and solar hot water) to homes or businesses — a key resource for reducing electricity demand during peak times when rates are most expensive.

The general provisions of the program dictate funding will be deployed in the form of rebates for residential and small-business projects on a first-come-first-serve basis to approved applicants.

To be approved, residential applicants must be residents of Pennsylvania and the project must be completed on the homeowner's primary residence — vacation homes and investment properties will not qualify. Households may receive solar photovoltaic rebates for up to 10 kilowatts of installed photovoltaic generating capacity, plus one solar thermal rebate (which is capped at \$2,000).

Small businesses must be for-profit, located in Pennsylvania and have no more than 100 full-time employees. A small business may only submit one photovoltaic and one solar thermal application at a time and must complete the project and rebate.