

# Are you ready to 'go solar' in your home?

## Factors to consider when going solar:

- The amount of sun available at the site
- The amount of appropriate roof area that is available
- The budget of the customer

## An ideal situation would be:

- 85-90 percent or more available sunlight (4.7 hours in Central Virginia is 100 percent). A gadget called a "SunEye" analyzes shading at various points on the roof, using a fisheye lens, a digital camera, compass, and GPS.
- Adequate and appropriate roof area for the modules (panels) that would be needed to achieve the desired goal in production of electricity. (Stanley measures a client's structure, takes photographs, and produces a 3-D drawing to scale that shows the system installed.)
- A customer who is willing and able to finance the purchase of the system for a long-term investment. (GeoSmart leasing, local bank, second mortgage, or equity line.)

## It's an investment

Customers are investing in solar technology. They can't just walk into the "Solarmart," get a new solar system and expect to save money next month. It doesn't work like that... yet.

Sure, the electric bill will go down, but the monthly payments on the system will be higher than the existing electric bill... for a while.

So why then would anyone do this? In a nutshell, it is an investment with a long term (10-20 years or more) yield that can only be predicted with a small amount of guesswork - much like any other long-term investment.

Some may consider it doing their part to fight terrorism or for environmental reasons. Those are not measurable values, but are certainly perfectly good reasons.

Deregulation, inflation and potential "Cap and Trade" legislation are all likely causes of

the increases in the cost of electricity from traditional sources. In Maryland, the cost of electricity increased by 56 percent when deregulation occurred.

The National Association of Manufacturers estimates that the cost of electricity will increase by 130-135 percent by 2030. If rates increase by less than half of that, solar electric systems will become as commonplace as Tivo.

## Cost of a solar system:

Each module (incorrectly referred to as a panel in layman's terms) produces anywhere from 142 to 224 watts DC and costs from \$750-\$1200. Depending on whether the customer wants to offset all of their electric costs or a fraction of them, the number of modules could be anywhere from 20-120.

Inverters are needed to convert the solar DC into household AC power. They cost \$2,000-\$5,000. A home could easily see \$100,000-125,000 in gross cost for a system. When financed over 25 years, the cost for electricity that it generates is set in stone and once paid off, the electricity it produces is free.

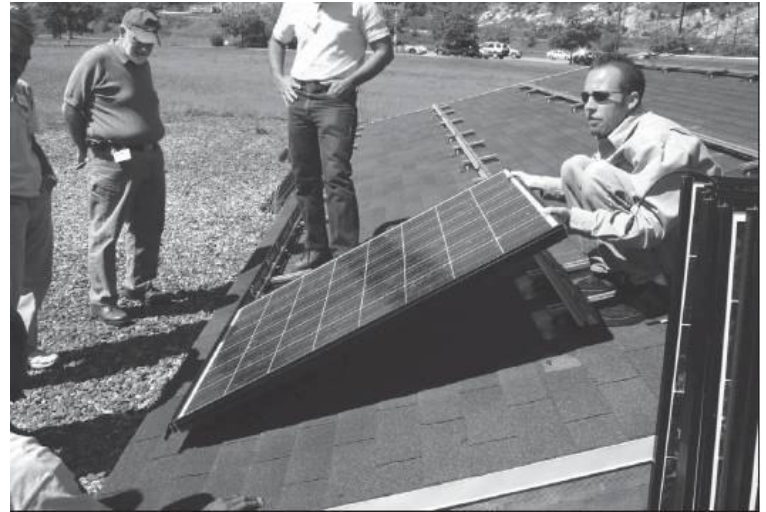
In many states, tax incentives include rebates that can compensate for up to 60 percent of the cost. Virginia currently has "net-metering," property tax exemptions, exemptions from real estate assessment increases (based on the added value of the solar system) and a \$2,000 federal tax rebate.

## How do you decide?

Do some research into the various solar manufacturers and find out which one is the most efficient and reliable. Sharp Solar is the one Bernie Stanley selected after many hours of research. The manufacturers and distributors offer certification courses.

Make sure your installer has personally attended a certification course held by the manufacturer. Are they in the construction field? Have they ever been on a roof? Do they understand how a roof is constructed?

If you are interested in learning more about



Installation of solar modules is demonstrated.

solar or are interested in an estimate, e-mail Bernie Stanley at: [bernie@shockoesolar.com](mailto:bernie@shockoesolar.com) or call toll free 1-888-396-5140.

The initial consultation is free. A full proposal requires six-10 hours of work, including

field measurements, engineering, drawing, estimating, etc. It costs \$300-\$500, depending on project complexity. This amount is credited toward the cost of the system if

installed within two years.