



# Farnsworth Solar



# Eagle Solar Roofs

with SolarBlend™  
from  SUNTECH

## Turn-Key Solar Solution for your project



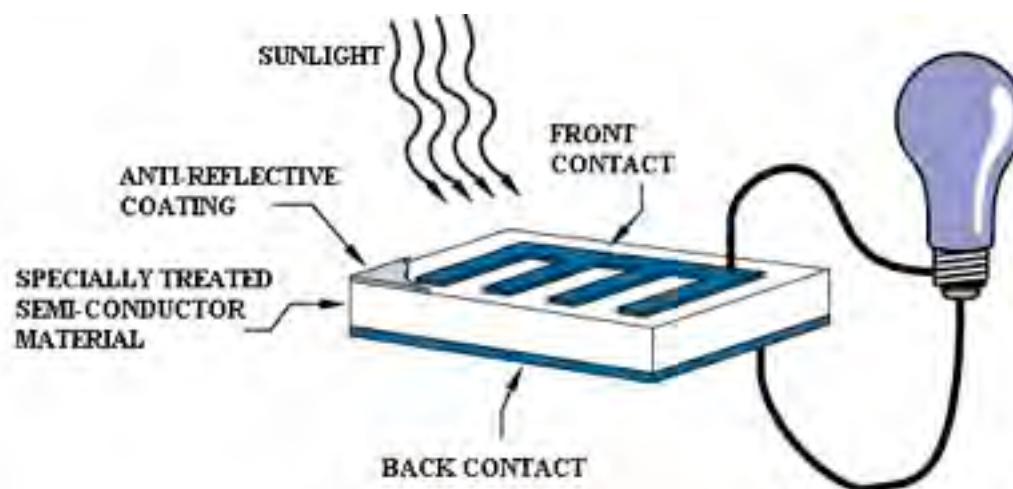
Monday, May 17, 2010

## **SOLAR PV PHOTOVOLTAIC TECHNOLOGY**

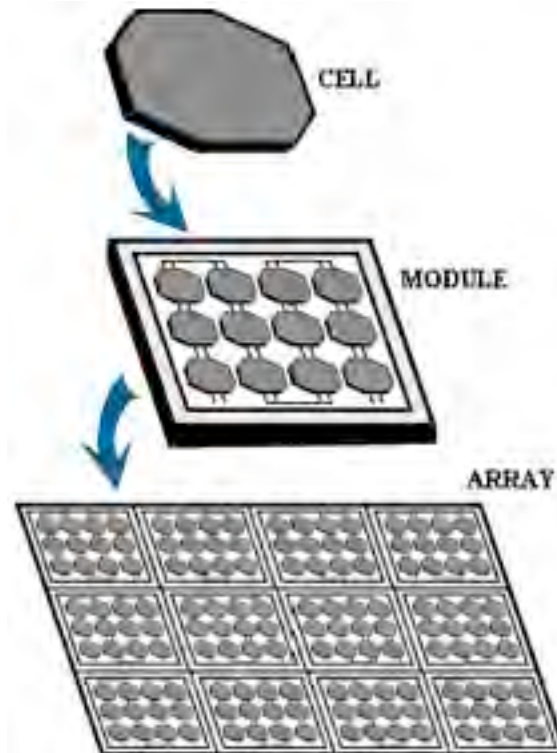
Photovoltaic (PV) cells utilize semiconductor technology to convert solar radiation directly into an electric current which can be used immediately or stored for future use. PV cells are often grouped in the form of “modules” to produce arrays which have the capability to produce power for orbiting satellites and other spacecraft. Recently, with the continual decline of manufacturing costs (declining 3% to 5% per year in recent years), uses of PV technology have grown to include home power generation, and grid-connected electricity generation. Installations of PV systems have also been increasing due in large part to comprehensive incentive programs which help reduce the costs of these systems and also allows users to sell excess electricity back to the public grid (feed-in).

Photovoltaics is the direct conversion of light into electricity at the atomic level. Some materials exhibit a property known as the photoelectric effect that causes them to absorb photons of light and release electrons. When these free electrons are captured, an electric current results that can be used as electricity.

The first photovoltaic module was built by Bell Laboratories in 1954. It was billed as a solar battery and was mostly just a curiosity as it was too expensive to gain widespread use. In the 1960s, the space industry began to make the first serious use of the technology to provide power aboard spacecraft.



A number of solar cells electrically connected to each other and mounted in a support structure or is called a photovoltaic module. Modules are designed to supply electricity at a certain voltage, such as a common 12 volts system. The current produced is directly dependent on how much light strikes the module.



## Farnsworth Solar System

Here is an example of pricing and tax credits

Type	Size	Farnsworth Price	AZ tax credit <sup>2</sup>	Federal tax credit <sup>3</sup>	Net Cost	Annual savings	Simple payback
Rack							
	2.16 kW	\$ 9,455.00	\$ 1,000.00	\$ 2,863.00	\$ 5,619.00	\$ 310.00	18 years
	4.2 kW	\$ 14,853.00	\$ 1,000.00	\$ 4,456.00	\$ 9,397.00	\$ 605.00	15.5 years
Integrated							
	2.16 kW	\$ 14,363.00	\$ 1,000.00	\$ 4,309.00	\$ 9,054.00	\$ 310.00	29 years
	4.0 kW	\$ 18,972.00	\$ 1,000.00	\$ 5,692.00	\$ 12,280.00	\$ 576.00	21.3 years



1. Costs may vary depending upon the contractor and materials you select.
2. AZ Tax Credit is 25% of price, capped at \$1,000
3. Federal tax credit is 30% of Farnsworth price

Federal Tax Credit Must be a U.S. Resident (File a U.S. Tax Return)

State Tax Credit: Must be an AZ Resident (File an AZ Tax Return)

This is only an estimate and is subject to change without notice.

# Eagle Solar Roof System Highlights

- Turn-key solar solution including:
  - System Design & Engineering – Completion of Building Permit Packages
  - Net-of-Rebate Pricing – Eagle Discounts Rebates and Takes Care of Paperwork
  - Installation by your trusted contractors
    - **Existing roofing and electrical contractors**
  - Enhanced performance w/ Eagle Cool Roofs & Energy Saving Roof
- Most advanced building integrated photovoltaic (PV) solution on the market
  - SolarSave/SolarBlend Roof Tiles from 
    - **Designed as an integrated roofing product**
    - **Warranted by Industry Leader Suntech, the largest producer of solar modules in the world**
    - **Financially stable (NYSE: STP)**
    - **Produced under the highest international quality standards**
    - **Cutting edge ongoing R&D**
  - Monitoring & Service Platform from 
    - **Leading inverter**
    - **Online performance monitoring**
- Technical support, training, and installation authorization for roofing contractors and electricians before and during system installation
  - We make it easy to do so



# Solar PV Module Technologies

➤ Solar modules comes in **different size, shapes and colors** depending on applications

## Traditional/Standard Modules



## Roof Integrated like SolarBlend for Improved Performance & Aesthetics



# SolarBlend™ Roof Tiles



- Aesthetically pleasing and beautifully integrated
- Tiles are durable and can be walked on
- Class-A Fire Rated Installation
- Integrates with both Flat and S-Tile tile roof systems
- Long term reliability and low maintenance costs
- Snow load capacity over 200 lbs per square foot
- Wind load rating up to 125 mph (with wind clip)
- Light weight, safe and easy to install
- No grounding required
- Free internet based solar system monitoring for 10 years
- Power Output Warranty from Suntech: 12 years for 90% & 25 years for 80% power output
- 34 Watts per panel for 3' tile



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# SolarBlend™ Roof Tiles Available in 3 Colors

Slate Grey

Terracotta

Earth Brown



Examples of some compatible Eagle concrete Tile colors



Eagle also offers a wide variety of “Cool Roof” rated tiles and “Energy Saving Roof” ventilation components for enhanced energy efficiency

