



## **SUNRGI - TRUTH IN SOLAR POWER**

Virtually everyone has used a magnifying glass to focus sunlight down to a small, very bright, hot spot of light. SUNRGI uses this same principle in its Xtreme Concentrated Photovoltaics™ (XCPV™) system (patents pending). SUNRGI efficiently concentrates sunlight so that it is more than 1,600 times brighter than the sun. This concentrated sunlight is focused onto photovoltaic (PV) solar cells that convert more than 37% of the sunlight directly into electricity. This compares to typical non-concentrated, one sun, solar cells (such as thin film) that are less than 1/3 as efficient.

Such extreme concentration of sunlight would normally create a great amount of heat, which would raise the temperature of the cells to more than 3,300<sup>0</sup>F. At that temperature, the PV cells would melt. SUNRGI's proprietary (patents pending) Cool Move™ heat transport technology swiftly prevents this undesirable heat buildup so that the PV solar cells are actually kept cooler than their nominal operating temperature, thus extending their useful life.

The reason for concentrating solar energy onto small PV solar cells is to reduce the amount of costly solar cell material needed to generate any given amount of electricity. PV solar cells are an expensive component of any solar system. It is obvious that reducing the amount of PV solar cells by more than 1,600 times has a significant beneficial impact on costs.

SUNRGI's XCPV system tracks the sun as it moves across the sky from sunrise to sunset. Typical PV solar systems (such as those mounted on home rooftops) are fixed and do not track the sun. The performance difference between tracking systems and fixed systems is significant. In a day, SUNRGI's tracking system will capture and convert 175% more sunlight than a fixed system at the same advertised peak power rating.

Optimizing solar concentration, heat removal, component reduction and highly accurate solar tracking will make it possible, in about a year, for SUNRGI technology to produce large amounts of electricity from sunlight at a wholesale cost of 5 cents per kWh.