

Press Release from ACR Solar International Corp. Carmichael, CA

Patented “MegaMat” is Ideal for Hybrid Solar Electric and Pool Heating (PVT)

May 10, 2018

Carmichael, CA

PV-Thermal hybrids have recently become popular because these systems make more effective use of valuable solar roof space. The Hybrid collector effectively more than doubles the per square foot power output of Solar Electric Photovoltaic Panels (PV) alone. This is done by producing heat for pool heating as a byproduct, in effect, a solar co-generation process.

Further efficiency is achieved because PV panels grow less efficient as they get hot so cooling the underside of the PV panel with pool water makes it produce more electricity. Further savings are achieved because the system usually covers a large part of the south roof and thus reduces the buildings cooling load.

On its own, Solar Thermal usually produces over 4 times the energy of PV in thermal terms. A thermal collector covered with PV is going to work at lower efficiency because most of the direct sunlight is blocked by the cells. If the thermal portion of the Hybrid collector was working at only 25% efficiency, the gross energy output would be doubled and usually much more. Now add to that increased PV panel efficiency and decreased cooling load and you have a real winning combination.

Homeowners with solar pool heaters no longer need to make a choice between keeping their solar pool heater or getting solar electric, they can now have both in the same space with the retrofittable MegaMat. The net energy effect of applying the MegaMat to a solar electric system is an increase of energy and energy saving benefits which can exceed 200% of the PV system alone while doubling the useful application of valuable south facing roof area.

The value of the PVT hybrid approach has been recognized by no less than Vinod Khosler, the founder of Sun Microsystems who is now an alternative-energy technology entrepreneur. He called this hybrid approach “a gargantuan leap in a field where engineers exult over the most incremental gains.”

For years ACR Solar has produced Al Rich’s third patent, the popular light weight and attractive collector called the “Skyline” 10-01 and 20-01. “After 39 years in solar thermal, I have a few tricks up my sleeve and am excited to be making another contribution to solar energy with the MegaMat, people can immediately understand the value of Hybrid PV-Thermal,” Rich said.

For more information, please contact Al Rich at (916) 481-7200

###