



The American Solar, Inc.  
Line of  
**Solar Thermal Roof Tile  
Heating Systems**

### **Background**

American Solar, Inc. (ASI) received a patent for solar thermal roof tile heating systems in the early 1990s. The company successfully installed several systems, which continue to operate and deliver solar-heated air for building & equipment heating and cooling.

ASI's original solar thermal roof tile heating systems used glazing roof tiles to capture solar-heated air and shed rain from the roof. These systems deliver high performance, in all weather conditions.

### **Current Solar Thermal Roof Tile Heating Systems Offering**

Popular additions to the solar thermal roof tile heating systems line are solar thermal roofs built from conventional metal roofing. ASI designs and delivers these systems using:

- metal standing seam roofing panels,
- metal shakes, slates, or
- metal tiles.

Solar air-heating roofing systems deliver high solar heating performance and long-life, weather tight, low-cost metal roofing. ASI teams have installed solar air-heating roofs built from standing seam metal roofing on the largest solar air-heating roofs in North America, including buildings on Army and Air Force bases, other Federal and commercial buildings.

ASI can also install its solar air-heating systems on walls of buildings to create solar walls. These solar walls use metal solar air-heating siding and deliver solar-heated air for building heating and other purposes.

Adding a solar air-to-water heat exchanger provides a simple and effective way to produce solar hot water from a solar air-heating roof or wall. These systems are a simple and reliable way to convert solar-heated air from the roof or wall into abundant solar hot water.

By using a metal roof and/or wall as the solar collector, customers avoid the cost of buying separate solar collectors. The roof/wall becomes the solar collector. Not needing a separate solar collector lowers the installed cost and saves money. The sizeable energy savings delivered from the large roof and wall surface area, quickly repay the cost of the systems.

Typically, the energy savings along with the life cycle roofing savings from the long life metal roof, will quickly repay the cost of the new solar heating roof. This makes solar air-heating roofs, solar walls and solar hot water from the roofs and walls the most cost effective solar energy systems. The systems deliver high savings to investment ratios, short simple payback periods, and substantial renewable energy.

For more information, contact American Solar at 703-425-0923 or visit [americansolar.com](http://americansolar.com)