SmartShade™ Solar Parking Structures

Sundial Energy, Inc. merges technology from Uni-Solar™ and MasterCraft Metals to produce SmartShade™ solar parking structures

Commercial Structures from 1 kW – 250 kW
Residential 1 kW – 6 kW

SmartShade solar parking structures deliver where it really counts: performance. The SmartShade roof generates electricity even at very low sun angles and continues to perform well under the hottest conditions or cloudy days. The result is more total energy throughput and up to 30% more power production, on an installed watt-per-watt comparison, than crystalline modules. All grid-tied SmartShade roofs include one or more 120/240 AC receptacles that can be used to **charge plug-in hybrid cars or any electric vehicle, including bikes.**

AC outlet for plug-in hybrid and electric vehicles

Why Choose Sundial Energy, Inc. PV Laminate Systems?

Speed: Sundial Energy's SmartPower Roof installs faster than all other solar panels. No roof racks are needed with this system.

Efficiency: Due to their remarkable temperature and shadow tolerance, SmartPower Roofs produce more electricity than traditional crystalline panels, on a watt-per-watt basis, in actual power output.

Aesthetics: In the SmartPower Roof system the power producing surface is laminated directly to the metal panels to maintain roof profiles from all directions.

Flexibility: Roof geometries, from 3.5° to 60°.

Reliability: Includes a 20 year power output and adhesion warranty with a 5 year system warranty.

Vandalism Resistance: The laminates have no glass to shatter. Aggressive adhesion makes them extremely difficult to remove.

Balance-of-System (BOS): SmartPower Roof laminates do not require an additional roof mounting system. Costs for hardware and labor are reduced. Only the most efficient BOS components are used resulting in more energy per watt installed.

Sundial Energy, Inc. and the SmartPower Roof. Providing intelligent solutions for your renewable energy needs.

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Sundial ENERGY, Inc.

INTEGRATING RENEWABLE ENERGY

Products and Services

Sundial Energy offers a full-line of solar products, with an emphasis on the 2nd generation technologies – thin-film flexible Uni-Solar™ PV laminates.

SmartPower™ Roofs,
SmartShade™ Solar Parking Structures,
Solar Bus Shelters,
Solar Security Lighting and
Energy Analysis

are examples of the solar products being offered incorporating laminates into their design.

For the commercial business, residential developer or individual homeowner, Sundial Energy offers complete Uni-Solar™ PV thin-film flexible laminate system installations tailored to meet each customer's needs, that include industry leading inverters, charge controllers and batteries.

Sundial Energy is the right choice for your home or business.

ENERGY STAR PARTNER

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Sundial Energy, Inc. merges technology from Uni-Solar™ and MasterCraft Metals to produce the:

The SmartPower Roof™

Integrating the latest UL approved Uni-Solar flexible PV laminate technology with premium metal roofing by Master-Craft Metals, Inc., the SmartPower Roof provides customers with cost effective power generation from an attractive integrated roof that lasts a lifetime.

Architects appreciate the clean lines of the roof integrated Uni-Solar laminate. Simple, fast installation of the modular roof assures home builder satisfaction. Homeowners will rest easy knowing they've purchased a quality product backed by solid warranties: **20 years** from Uni-Solar and **10 years** from MasterCraft Metals, Inc.

SmartPower Roof delivers where it really counts: performance. The SmartPower Roof generates electricity even at very low sun angles and continues to perform well under the hottest conditions or cloudy weather. The result is more total energy throughput than the competition, up to 30% more on a watt-per-watt comparison.

Solar Powered Bus Shelters

with Battery-Based Storage Systems

- **Remote location capable. No wiring or costly trenching needed.**
- **Sizes – 204 watts @ 12 volts, 248 watts @ 24 volts, 372 watts @ 24 volts • Length – appropriate up to 20'**
- **Enhances design and roof aesthetics**
- **Solar laminates conform completely with a curved roof.**
- **Vandalism resistant**
- **Premium quality standing seam metal roof is weather-tight and has an extremely long life span.**

Sundial Energy's Solar Bus Shelter roofs provide electricity to attached advertising kiosks and security lighting without being connected to the grid. The bus shelters are complete stand alone low voltage electric systems that utilize a smart controller with battery storage.

Solar Security Lighting

- **Simple, robust** commercial grade system that can also be used in a residential setting.
- **Remote location capable.** No wiring or costly trenching needed.
- **Employs the latest high efficiency LED lighting.**
- **Retrofits with existing structures** or can be installed with SmartPower Roof and SmartShade™ structures.
- **Vandal resistant.**
- **Grid-tied or stand-alone** deep cycle battery powered systems available.
- **Illuminates dim parking areas** at apartments, offices, and residences.

Energy Analysis

Sundial Energy, Inc. is committed to reducing non-sustainable energy use at both the residential and commercial levels.

The following analyzes and determinations are performed at your home or place of business prior to sizing your PV system.

- **Evaluation of current energy load**
- **Electricity use analysis**
- **Building envelope evaluation**
- **Site survey – to determine the solar suitability of the your location.**
- **Cost comparison – installed PV system costs, with and without conservation and efficiency implementations, are compared.**
- **System payback time - with and without conservation and efficiency implementations, is presented.**

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