

# **Proud to offer full service**



# **Photovoltaic Solar Energy Roof Solutions**

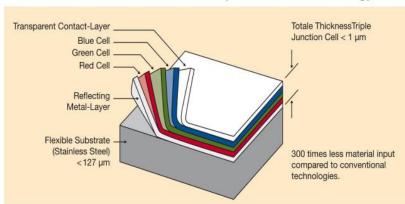
- How it works
- Solar Roof Power Plant
- Solar Technology Product Options & Summary Comparison
- Facility Integration & Grid Connection
- Completed Solar Projects
- Clean Solar Energy
- Solar Investment & Financial Incentives
- Useful Links

## **Protect and Promote Your Roof Asset!**



## How Photovoltaic Solar Technology Works FlexLight Thin Film Laminate Panels(Building Integrated – BIPV)

Cross-Section of the UNI-SOLAR®-Triple-Junction-Technology



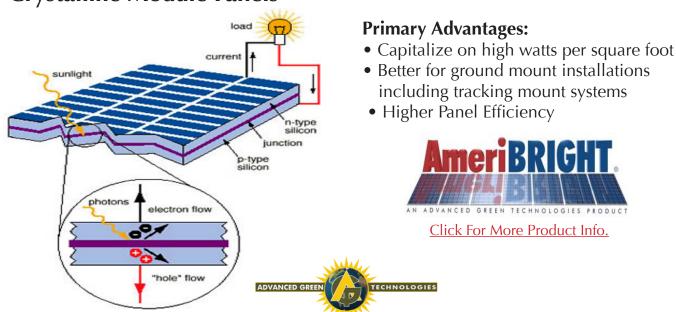


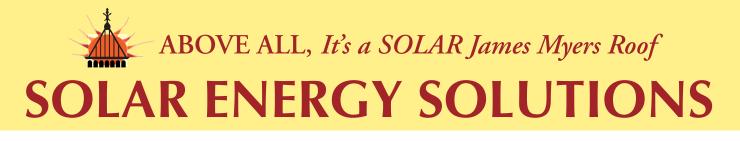
Click For More Product Info.

Primary Advantages:

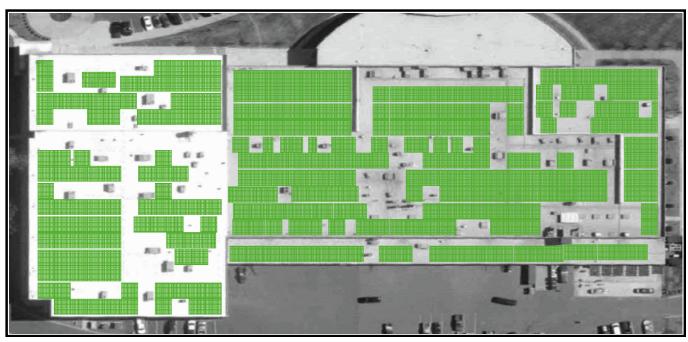
- Flexible and lightweight (less than 1 lb)
- Penetration free adheres directly to roof substrate
- High heat tolerance functions ideally under ambient temperatures
- Shading tolerant bypass diodes across each solar cell
- Durable hail/hurricane resistant with tough Teflon shell
- Zero glass construction

### **Crystalline Module Panels**





# Solar Roof: Power Plant Potential



## Use of available roof space to generate solar power and save energy costs

#### PV Solar System Power Potential:

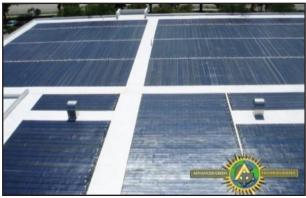
Crystalline Module Panels – 10 – 12 Watts per SF Thin Film Solar Laminates – 5 -6 Watts per SF

\*Actual Power varies by site and is dependent on specific conditions including: panel performance, PV array orientation, shading conditions, geography & peak sun hours available, weather conditions, etc.





#### Solar Thin Film Laminate Projects



Advanced Green Technologies Fort Lauderdale, FL – 55 kW PV System



The James Myers Company Beltsville, MD – 14 kW PV System



The Hamlin CompaniesBenon, NC107 kW – PV System

#### **Crystalline Module Panel Systems**



North Carolina Residence – 2800 Watt PV System



Florida Residence – 4000 Watt PV System



Florida Residence – 4000 Watt PV System





# Solar Technology Options: What is Best for Your Facility?

## **Solar Products - Summary Comparison**

FEATURE	Thin Film Laminates	Crystalline Panels
Energy Output / Range	5 - 6 Watts per SF	10 – 12 Watts per SF
Panel Efficiency	8 - 9%	11-15%
Limited Manufacturer Peak Power Warranty	20 year	25 year
Weight of System	Less than 1 lb per sq ft	Approx. 3 lbs per sq ft
Retail Cost for Panel Materials Only (excludes labor, support system, electrical wiring, inverters, etc.)	\$5.90 per watt	\$5.95 per watt
Shading Impact/Temperature Impact	Low Impact	High Impact
Support System Required	No – Installed Directly on Prepared/Approved Roof Surface	Yes - Metal Racking System
Impact Durability (Hail)	2" @ 90mph impact	1" @50mph impact
Wind Uplift Resistance	146 mph Miami-Dade Building Code Approved	90 mph

\*The above information represents an approximate range and depends on different panels and usage factors involved for each installation.

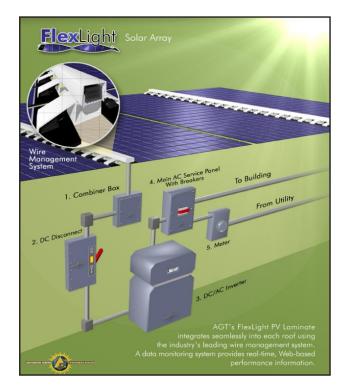


# ABOVE ALL, It's a SOLAR James Myers Roof SOLAR ENERGY SOLUTIONS

# Solar Energy & Facility Integration

#### Facility Integration – Electrical Electrical Connection

- Service panel interaction
- Grid connected
- Turn meter back for energy control
- Stand alone and standby generator options available
- Quality inverters:UL 1741; IEEE 1547



#### Clean Solar Energy = Environmental Advantages Solar Energy is Clean

### • Carbon-free energy

- Solar manufacturing has no toxic byproducts
- Sunlight is free use it!
- Future is here renewable energy is necessary to save our planet
- Energy consumption in buildings doubled from 1989 to 2005

#### **Environmental Offsets with Solar Energy**

Based on using a 100kW solar energy system, approximate annual offsets include:

- Reduces 172,747 lbs of CO2
- Saves energy use for approximately 15.82 cars
- Saves 200.87 barrels of oil
- Saves 9,804 Gallons Gas
- Saves 64,780 Lb of Propane
- Preserves 19.63 acres of trees
- Equivalent Tons of waste recycled = 29.78 Tons

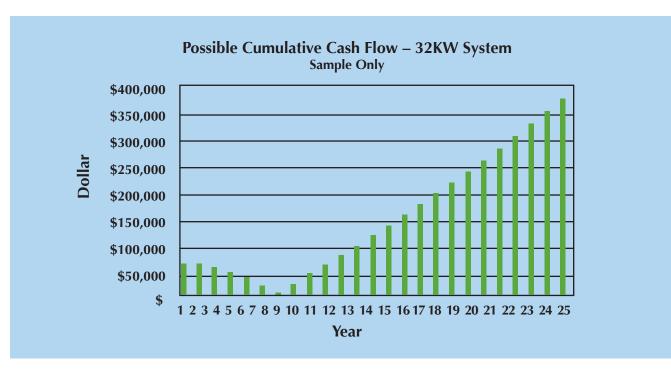




# **Investing in Solar Energy Financial Incentives**

#### Financial Incentive and Return on Investment Potential

- Federal Tax Credit
  - 30% investment tax credit
  - 5 year MACRS depreciation-
  - Economic Stimulus Act 2008 Bonus Depreciation
- Renewable Energy Credits (availability determined by state)
- State and Utility Incentives (availability determined by state)



\*This cash flow chart represents a potential R.O.I. that may be possible with a 32 kW Solar System Energy Investment. Actual results depend on many variables. You should carefully review and discuss these issues with your tax advisor. You may also wish to visit the website - www.dsireusa.org for additional information.





# Website Links and Additional Information

- Solar Energy Industries Association (SEIA) <u>http://www.seia.org</u>
- American Council on Renewable Energy (ACORE) http://www.acore.org/front
- American Solar Energy Society (ASES) <u>http://www.ases.org</u>
- Energy Information Administration (EIA) <u>http://eia.doe.gov</u>
- U.S. Green Building Council (LEED) http://www.usgbc.org
- Database of State Incentives for Renewables & Efficiency (DSIRE) <u>http://www.dsireusa.org</u>





# Live Solar Monitoring Dashboard Feature

### For live solar monitoring **CLICK HERE**



### James Myers Company, Inc.

# Contact James Myers for more information on Solar Energy Solutions <u>www.jamesmyersco.com</u> (301) 419.0091



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# For More Information about James Myers Company, Inc. Solar Energy Solutions

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