



**Company introduction** 

**Solar introduction** 

**Company products** 

**Project performance** 





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Luster Solar Technology(Changzhou) Co.,Ltd (Herein called "Luster Solar") is established by Mr. YANG who has senior experience in PV field. The headquarter locates at Changzhou, Jiangsu province, China.

Luster Solar specially bases on solar field including technology, manufacture and trade such as solar module manufacture and agency, Energy store system, residential PV integrated products, PV power station, PV application products like solar lamps, solar pump, etc.

Luster Solar has domestic & international logistics companies in Changzhou and Nantong. We always persists to give our partners best service and value.













### ☐ Intellectual property rights

With many patents and technical papers during the whole PV filed.

C-Si solar cell:

2 patents (Bifacial solar cell, first patent in China, Back contact),

1 international paper published a PV Tech in England(A novel solar cell process)

Solar module: 3 patents (2 inventions, 1 pattern)

PV power station: 2 technical papers published in China, 2 patents in application

■ Mr. Yang: Company funder, with master degree ,China first rating constructor & High voltage technic. He has 15 years of work experience at solar cell, module, PV station technology, PV station project management on site. Mr. Yang took the jobs as Manager in Trina solar, Han Wha and Csun and has many patents and publishes academic papers.











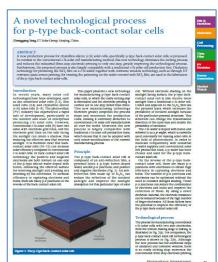


# 光伏组件铝背板绝缘方法 (1874) 申请号: 201210510019.1 申请日: 2012-12-04 **摘要:** 本发明公开了一种光伏组件铝管新选缘技术,包括本发明对铅管板进行剪切,使用铝管板的尺寸均小于玻璃的尺寸4~5mm,对铝管板的电极引线态处开方形开口,在组件排版敷设对,通过型绝缘小料或采用绝缘模包边的方法对方形开口进行绝缘处理。再经过层压和层压件制边、采用0.5~1mm的绝缘款带对初边后的层压件进行包边、最后对层压件进行对过放装柜和装接线盒。本发明操作方便、投资低、应用前景广泛。 申请人: 非益析影响信息,直接公司 地址: 225200 江苏南南通市启示市宏介开发区标洋路8888号 发明(设计)人: 董世 杨正则 张途先 查题 屋钟生主分类号: 由0131/18(2006.01) 分类号: 由0131/18(2006.01)

### Back contact solar cell patent Bifacial solar cell patent



Power station patent



### Solar module patent



### Solar module patent





The top PV filed magazine world wide



### **□** PV Module Workshop Show













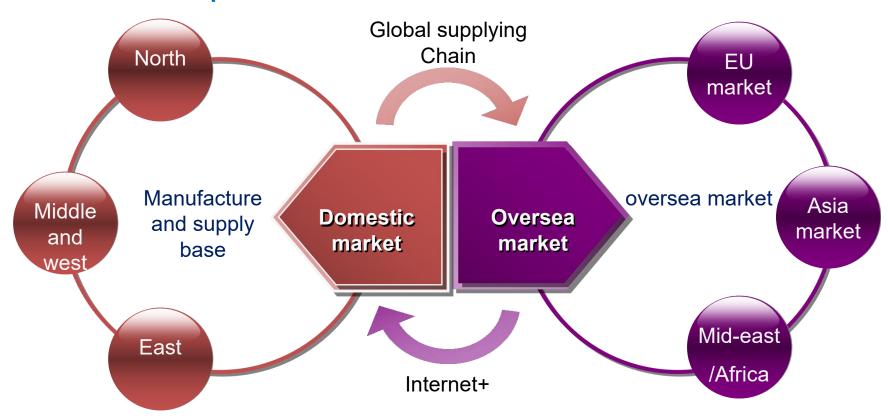
The wholly robot automatically streamline to keep the quality the same. The world top advanced technology and streamline 400MW/year.

☐ Technology + production to provide customers with customized, cost-effective photovoltaic modules and products





### **□** Market Development



Based on domestic material resource ,Technology and manufacture, develop oversea market. To realize the benefit together with partner and customers.





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### Solar introduction—PV chain



**PV chain:** Crystal silicon, wafer, solar cell, module and PV power station and Product application.















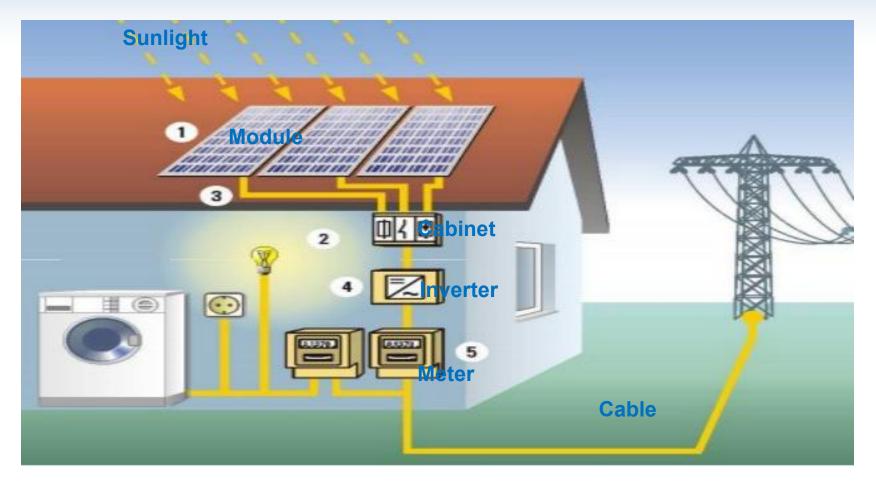






### Solar introduction—PV show





- Module absorbs sunlight and changes to direct current.
- □ Inverter changes the direct current to alternate current for load use.



### Solar introduction—PV distribution

**Definition:** Utilization of enterprises and residents, public building roof and abandoned land, barren hill slope, agricultural greenhouses, mudflats, fish ponds, lakes to build photovoltaic power Station where all power is run out on the spot.



Residential roof



Public building roof



Agricultural greenhouses



Factory roof



Abandoned land, barren hill slope



Fish ponds, lakes





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### **Products—module manufacturing**







Mono-crystalline 144 cells 440-450W

Mono-crystalline 144 cells 540—550w



### **Products—residential PV integrated products**











Rack

DC cable

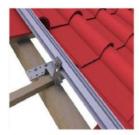
Inverter

Luster Solar



















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### **Project Performance**



### **□** Domestic project

- 1. Suzhou Golden Sun 10MW Rooftop PV Power Station
- 2. Yangzijiang Shipyard 5MW Rooftop PV Power Station
- 3. Wuxi Xingzhou Industrial Park 50MW First Rooftop Distributed PV Demonstration Zone Project
- 4. Anhui Wuhu Xinlong Electric 1.4MW Roof Distributed PV Project
- 5. Anhui Wuhu Shen jian chemical 600KW Roof Distributed PV project
- 6. Wuhan Aipak 4MW Roof Distributed PV Project
- 7. Hu Bei Huanggang Hongdi Heavy Industries 10MW Roof Distributed PV Project
- 8. Jiangxi Ganzhou 5MW Rooftop Distributed PV project



### **Project Performance**



### **□** Domestic Technical service and Installation

Provide Qinghai Gonghe County Yellow River Hydropower 1GW photovoltaic power plant project a full set of photovoltaic tracking system (N-shaped double-sided module and tracking bracket system) project site classification and sub-projects and square array material transfer, tracking system installation and technical services

### **□** Overseas EPC project

EPC Niche Cocoa 2MW Rooftop PV Power in Ghana Africa

### **□** Overseas Projects inspected in earlier stage

- 1. EPC Bidding for Enclave Solar Power12MW Rooftop PV Power in Ghana Africa
- 2. EPC Bidding for 3 roofs of industrial buildings in Ho Chi Minh City, Vietnam
- 3. PV Technical proposal for Touton hotel in Vietnam
- 4. PV Technical proposal for 2 suburbs farms in Ho Chi Minh City, Vietnam





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## **Project implement -Cooperation Mode**

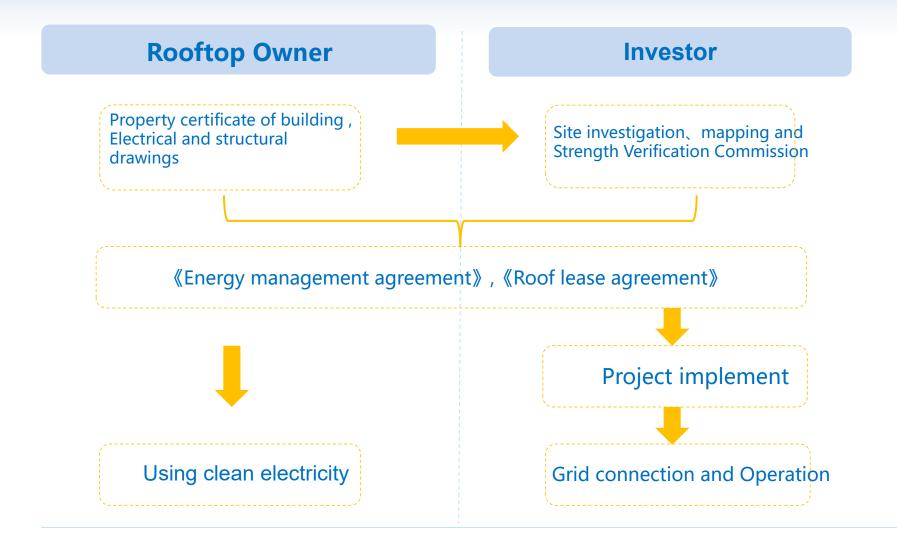


Mode 1: I invest ,you use electricity	Mode 2: You invest, I EPC		
Roof provided by owner ( 25 years)	Owner provide rooftop , investment and Operation and maintenance		
Invested , constructed , Operation and maintenance by Luster	EPC by Luster		
10% off the electricity bill	Luster assists in handling procedures and training		



### Project implement -Cooperation Process (Luster investment)







### **Project implement—Quality Guarantee**



We not only pay attention to efficiency, pay more attention to safety





### **Project implement--cement roof**



### **♦** Cement roof





- ☐ For cast-in-situ roof in the form of counterweight to support installation
- □ Does not destroy the waterproof layer of the roof, so as to ensure the whole roof waterproof



### Project implement--color-coated steel roof



### **♦** Color-coated steel roof





- □ The light steel structure roof in the form of fixture for stent installation
- □ Does not destroy the waterproof layer of the roof, so as to ensure the whole roof waterproof

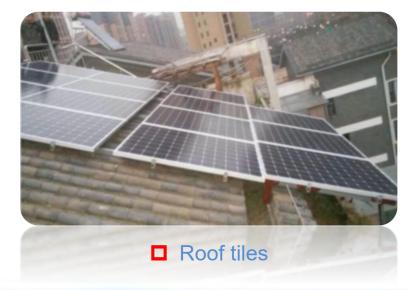


### **Project implement-- resident roof**

### **♦** Residential roof



☐ Glazed tile roof







■ Roof tiles



### **Environment effect**



### ☐ Shanghai locates in middle ,take it as example, based on 1MW;

City	Latitude and longitude		Horizon kWh/year	The best Angle	k\/\/h/\/ear	The winter solstice Angle of the sun azimuth/degrees
shanghai	31° 13'2.31" N	121° 24'20.31" E	1269	25	1359	20.36/43.76

Photovoltaic system energy-saving emission reductions calculation form							
Capacity(KWp)	1000	Average output (KWh)	968,700				
emission reduction items	The unit reduction	Unit	Annual	25Y			
standard coal (t)	325	g/KWh	314.83	7870.69			
CO2(t)	812.5	g/KWh	787.07	19676.72			
SO2(t)	2.26	g/KWh	2.19	54.73			
NOX(t)	3.2	g/KWh	3.10	77.50			
fume (t)	0.39	g/KWh	0.38	9.44			
Waste water (m3)	1000	g/KWh	968.70	24217.50			

Remark: the units of standard coal, soot and SO2 emission reductions from "China power reduction study 2013"





## Thank you! Warmly welcome to communicate and cooperate

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